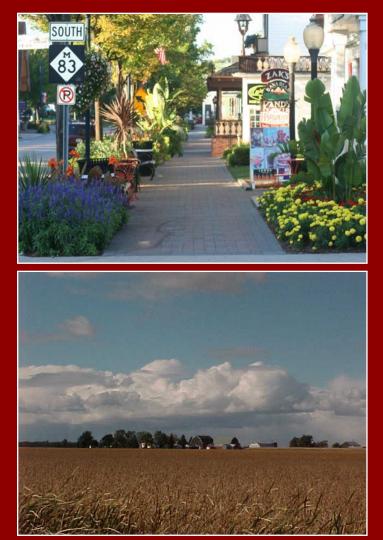
CITY OF FRANKENMUTH AND FRANKENMUTH TOWNSHIP

2015 JOINT GROWTH MANAGEMENT PLAN





September 2015

City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan

Prepared Under the Direction of:

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2015 Plan Revised By the City & Township Planning Commissions

Joint Growth Management Plan Update – June 2015 EXECUTIVE SUMMARY

Please note that generally single underlines indicate additions and single strikethroughs indicate deletions throughout the draft document. Additions made as a result of additional discussion are indicated by double underlines while double strikethroughs indicate deletions as a result of that meeting. With regard to some chapters and tables, items in "red" also indicate changes made before the March 24th meeting. Also note that some existing topic or heading underlines remain throughout.

Chapter 1

Updated miscellaneous information/dates/data since 2010.

Chapter 2

Updated language and tables with 2010 Census data, merged Figures 2-1 and 2-2 with Tables 2-7 and 2-8, deleted Table 2-10 on "County Employment Data by Industry", and updated SEV data.

Chapter 3

Substantially updated "Economic Development" section at the end of the Chapter.

Chapter 4

Updated "Economy" information, Table 4-1 on "Residential Building Permits", "Environment" and "Natural Resources" sections and added information on "Low Impact Development" section.

Chapter 5

Updated and merged "Natural Resources Goals 9, 10 and 11" after receiving much information and general recommendations from a comprehensive study on the Saginaw Bay Watershed back in 2013.

Chapter 6

Updated Map 6-2b "Future Land Use Map for City of Frankenmuth", density of residential dwelling units per acre, "Local Commercial Existing Conditions" section, and information on "Future Local Commercial, Institutional Land Uses" and "Industrial Land Uses Existing Conditions" sections.

See attached summary of the map changes and a copy of the newly proposed map (Map 6-2b).

Chapter 7

Updated information throughout to keep current and deleted much specific information in the "Parks & Recreation" section and referred to the most recently adopted Recreation Plan that is updated every five years by the Parks & Recreation Commission, eliminated Maps 7-5a "Potential Frankenmuth Trail System" and Map 7-5b "Potential City of Frankenmuth Bike Route" maps being they already exist in Chapter 8 Transportation. Also updated information on the "School System" and their increase in size.

Chapter 8

Comprehensively updated the entire Chapter and added "road classifications", "focus issues", added Map 8-3 on traffic volumes, updated Table 8-1 "M-83 Traffic Volumes", "Crash Patterns", "Future Traffic Circulation", and "Public Transportation" sections. Deleted some "Previous Study Information". Added a "Complete Streets" section and updated Maps 8-6a "Frankenmuth Bike Route Plan" and Map 8-6b "Potential Frankenmuth Trail System" maps.

Chapter 9

Updated numbers in the "Joint Urban Limit Line Policy" section.

Chapter 10

Updated information in the "Commercial Districts" section, and deleted some items in the "Proposed Changes to Zoning Ordinances" section that have been completed.

Chapter 11

Chapter 11 was re-organized to provide status updates and the accomplishments made since 2010 and re-organized the categories to either before 2015 or after 2015 as follows: "accomplished", "on-going", "under consideration or review".

Appendix A

See attached.

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Chapter 1 INTRODUCTION AND REGIONAL SETTING

INTRODUCTION

This Growth Management Plan is intended to guide the growth and development of the City of Frankenmuth and Frankenmuth Township over the next twenty years. This is a joint Plan, and it treats the two communities equally. Enabling legislation requires pieces of this Plan to be presented separately but in spirit, this is a joint Plan prepared by two communities which believe that their goals and futures will best be advanced by continuing the joint approach to growth management they first initiated in the mid-1980s.

This is a Plan update, in that it contains substantial text from the original Growth Management Plan developed in 1985, including nearly all of the strategies. The efforts of Dr. Roger Hamlin of Michigan State University who facilitated development of the original Plan and ably drafted it all, as well as the efforts of Dr. William Kimball of Michigan State University, who guided an extensive citizen opinion survey with well over a 90% return rate, were critical in setting the stage for joint planning in Frankenmuth Township and the City of Frankenmuth.



Photo 1-1 Downtown City of Frankenmuth

Photo 1-2 Farm in Frankenmuth Township



City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan May 2015 1-1

REGIONAL SETTING

Location

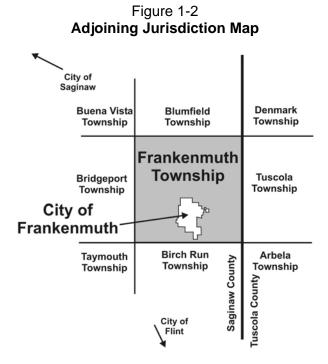
Frankenmuth City and Frankenmuth Township are located in eastern Saginaw County, at approximately 43 degrees, 20 minutes north latitude, and 83 degrees, 45 minutes west longitude. The township has a legal description of T11N, R6E. Its elevation ranges from 600 to 666 feet above sea level.

The Saginaw Bay, which reaches in from Lake Huron to define the "thumb" of Michigan's eastern coastline, is about 22 miles from the Frankenmuth city limits.



The City of Frankenmuth is situated on the Cass River at Michigan Highway 83, approximately six miles east of Interstate 75. It lies wholly within Frankenmuth Township, between two major Michigan manufacturing centers: Saginaw, which is 14 miles to the northwest, and Flint, 25 miles south. See Figure 1-1.

The township is surrounded by Blumfield Township on the north, Birch Run Township on the south, Tuscola Township in Tuscola County on the east, and Bridgeport Township on the west. Arbela, Buena Vista, Denmark and Taymouth Townships are diagonally adjacent to Frankenmuth Township. See Figure 1-2.



With a population in Frankenmuth City of <u>4,944</u> <u>4,838</u>, according to the <u>2010</u> <u>2000</u> US Census, and in the township of <u>1,959</u> 2,049 (for a total population of <u>6,903</u> 6,887 persons), Frankenmuth has a small town atmosphere. Frankenmuth is known as a tourist town, and in spite of its small size, it is able to attract 2-3 million visitors a year, according to the Michigan Travel Bureau.

CLIMATE

The weather in Frankenmuth features cold winters, and warm, often humid summers. The average temperature during the coldest months of January and February is 23.6 F., and the mean July temperature is 71.6 F. The variation between the mean temperatures is 48 F., with an annual average of 47.4 F.

Frankenmuth summers are sunny, with the sun shining about 65 to 75 percent of the day time. This percentage drops to 25 percent during winter months, and cloudy skies moderate the temperature during cold spells. An average of 40.01 inches of snow falls annually on Saginaw County. The average rainfall is 30.05 inches, accounting for about 57 percent of the annual precipitation. Because half the summer rainfall evaporates during the growing season, winter and spring precipitation play an important role in replenishing the soil's moisture. The average last frost is on May 5, and the average first autumn frost occurs on October 11. The growing season varies from about 120 days to 159 days, with the mean around 152 days. Light frosts, particularly in low-lying floodplains, have occurred as late as May 26, and as early as September 26.

Saginaw County is occasionally swept with high winds, and the risk of tornadoes is considered low (although there was a tornado in 1996). Although Frankenmuth's proximity to the Saginaw Bay and Lake Huron moderates its weather somewhat, prevailing winds from the southwest in summer, and northwest during winter, bring the area its dominant climatic features.

Photo 1-3 Frankenmuth in the Winter



POLITICAL GEOGRAPHY

Michigan's current system of local government has its roots in the Northwest Territory Ordinance of 1787. By this act, the federal government divided the territorial lands that in Michigan eventually turned into 83 counties, most of relatively uniform size. Townships generally are thirty-six square miles with each section one-mile square.

The United States passed the ordinance by necessity after nearly doubling its size with the end of the Revolutionary War. From its roots in colonial America, this system has become the basis for Michigan's local government as we know it.

In this state, counties, townships, and cities all have special roles to play. Counties act as agencies for the state, and began as the dominant local jurisdiction in rural Michigan. They provided the first road networks and sheriff departments. Through state law, they established the court system. The Prosecutor's office, the Register of Deeds, and the Sheriff are all original county functions that remain today. Counties also have assumed a variety of additional responsibilities, such as drains, mental health, solid waste, parks, soil conservation, and economic development.

In contrast to counties, cities did not originate in a pre-determined fashion. Cities and villages sprang up in response to a need for the services of a settlement, and became public corporations under state law in order to manage their affairs. As creatures of the state, they are empowered to engage in only those activities which the state enables them to undertake. However, cities have considerable latitude in how they provide services to their citizens. Unlike counties and townships, cities were created to respond to urban needs, and provide such services as police and fire protection, urban utilities, and parks.

Townships take many forms, but the two most dominant forms are Congressional townships, and civil townships. Congressional townships perform only the surveying function described above in the discussion of the Northwest Ordinance. The purpose of these is to assist in providing a legal description of land, using the section lines. Civil or political townships, like Frankenmuth Township,

are local government entities, designed to service the needs of rural citizens in close proximity. These initially included finding lost farm animals, caring for cemeteries, etc. Present day township governments are empowered to do almost everything city governments are able to do, but for the most part, different laws guide townships and cities in the exercise of their powers.

Obviously, the changes over the years in the way each form of government serviced its citizens has made the lines of local government functions fuzzy. All are empowered to do planning and zoning, and provide police and fire protection, road repair, and parks.

In an effort to keep down the cost of government and retain its agricultural economic base, Frankenmuth Township has selected to limit urban growth within its boundaries. As a result, the township has succeeded in minimizing the urban services it provides and minimizing tax rates. The city and the township jointly own and provide fire service and jointly maintain a cemetery. In addition, the city provides several services to both city and township taxpayers including police, library and certain recreational activities. The city provides a full range of urban services to its residents. Urban utilities such as water and sewer are provided by the city and extended into the township when a project is jointly approved according to applicable growth management regulations that are consistent in each jurisdiction. Township residents pay higher water fees in recognition of fewer users per mile and to help defray the costs of city administration. Almost all urban growth has been concentrated within the city limits or has been annexed into the city. The result is that a fairly clear distinction has been maintained between the city as the provider of water and sewer services and the township as a place where fewer services are available. This distinction has facilitated the quality and efficiency of both and helped to preserve the unique character of each.

Photo 1-4 Fewer Urban Services are provided in Frankenmuth Township than in the City



GEOLOGY Michigan's Geology

Most of Saginaw County sits on a plain formed by glacial till and lacustrine deposits. The glaciers receded in stages, which formed plains at several different altitudes. The Frankenmuth area is on a higher plain, approximately 600 to 670 feet above sea level. It shows few rock formations, but rather the flat and gently rolling terrain that typifies glacial plains. The subsurface geology reveals layers of sedimentary rock: sandstone, thin coal beds, and shaley limestone.

Minerals

Frankenmuth Township shows little of the promise of mineral resources held by the balance of Saginaw County. Thin layers of coal throughout the County are uneconomical to mine. Despite the presence of oil and gas wells now productive in several other townships, attempts to tap these resources in Frankenmuth Township have been fruitless.

Soils

The most productive of Frankenmuth's geological resources is its fertile soil. Township farmland has been rated among the highest quality in the state, and both the city and township have demonstrated their willingness to preserve this precious resource.



Photo 1-5 Frankenmuth Soils are Productive

Most of the highly fertile soils are located north of the city. The dominant soils in this area are in the Tappan-Londo association. They include nearly level and gently undulating, poorly drained to somewhat poorly drained soils on water-worked till plains and other till plains. South of the city are Gagetown-Strawn-Sloan association soils. These are nearly level to rolling, moderately well drained, well drained and very poorly drained soils on lake plains, till plains and floodplains. To the west of Frankenmuth City and in the far southwest part of the township are Pipestone-Granby-Wixom association soils. These are nearly level sloping, somewhat poorly drained and poorly drained soils on lake plains.

HYDROLOGY Drainage

Along with the Dead Creek and several unnamed tributaries, the Cass River drains most of Frankenmuth Area. By the time it reaches Frankenmuth on its way to the Saginaw River, the Cass River has drained 848 square miles. Because of the relatively level topography and the soil's high water-holding capacity, drainage from Frankenmuth area soils is slow.

A divide running roughly parallel to Roedel Road bisects the township in an east-west direction. Runoff from the north side of the township drains into Blumfield Township to the north. The Lotter Drain handles most of the runoff from Section 1, and eventually flows into Cheboyganing Creek. The Jordan Drain runs through the north central sections, winding its way to Blumfield Creek. In northwestern Frankenmuth Township, Cool Creek meanders into Blumfield Township, its waters destined for the Saginaw River.

The southern portion is served by three drains, all of which flow into Dead Creek: 1) The Zehnder drain, flowing north; 2) On the west side of town, the Schluckebier Drain, running westward from the Frankenmuth Landing Strip; and 3) the Block Drain, running along Townline Road.



Photo 1-6 Creeks and Drains Flow Into the Cass River

Floodplains and Flooding

Floodwater data has been available for the city since 1940, when a USGS flow gauge was installed 2000 feet downstream from the Cass River dam. Township data is not available, but can be extrapolated with reasonable accuracy from existing topographic data.

The Cass River has a history of spring flooding. Runoff from the spring thaw is a primary source of floodwaters. Occasional ice jamming exacerbates the situation.

The most severe recorded flood occurred in September 1986, when water flowed through the gauge at 14,025 22,300 cubic feet per second (cfs) and rose to the height of 611.0 feet. The 100 year base floodwaters would flow at the rate of 21,000 cfs, and rise to 607.55 610.4 feet. In 1965 a dike levee was designed by the Army Corps of Engineers, and constructed to protect the downtown Frankenmuth business district from flood damage. It consists of an earthen berm levee and concrete retaining wall, and is was designed to withstand 100 year flood levels. The dike levee extends roughly 1,900 feet upstream, and 1,300 feet downstream from the Main Street Bridge.

In March of 1982 (updated in 1997) the Federal Emergency Management Agency (FEMA) completed a Flood Insurance Study of the Cass River within the boundaries of the City of Frankenmuth <u>and the</u>

<u>City opted to participate in the National Flood Insurance Program (NFIP) at that time.</u> <u>In 2012,</u> <u>Frankenmuth Township also opted to participate in the NFIP.</u> Careful planning and floodplain management can ensure that area residents <u>and businesses</u> will be protected from rising floodwaters. Every encroachment on the floodplains causes flood levels to rise in elevation. By continuing to regulate construction on land within the floodplain, flood waters can remain less obstructed, and damage can be minimized. Increasing urbanization on the other lands can also cause runoff problems, unless the rate and nature of new growth is carefully planned.

In August of 2008 FEMA informed the City of their its intent to pursue reclassification of the dike levee around the downtown area showing that it does not protect that area from the 100 year flood. However, as of August 2010 no official action has been taken. In 2009 the City Council agreed to pursue a project to reconstruct the levee in order to meet the new FEMA requirements and to prevent the downtown area from being classified as being in a floodplain zone. The City hired a consulting engineer who has been working on a levee modification project that will comply with FEMA, Corps of Engineers, Michigan DEQ and Michigan MDOT regulations. The City plans to hire a contractor in 2016 or 2017 to construct the project. The estimated project completion date is late 2017.

PLANTS AND ANIMALS Vegetation

The Frankenmuth area, along with the rest of Saginaw County, was dense forest prior to the arrival of the first settlers of European origin. The heavier textured, wet soils, supported mature, climax hardwood stands featuring elm, swamp white oak, white ash, both red and silver maples, basswood, and some shagbark hickory, red oak, and ironwood. Undergrowth in these areas was uncommon due to plant competition and lack of light.



Photo 1-7 Due to Early Clearing by Settlers, Most Trees are now Second Growth or Planted

The sandier soils, with better drainage, supported a vegetative cover that was much less dense. Under these conditions grew white pine, red and white oaks, beech, aspen, and yellow and white birches. These soils also supported black cherry, sassafras, Juneberry, and some sugar maple. These species are more typical in the Cass River area.

Due to the profitability of both the agriculture and lumber industries in the history of Saginaw County, most of the existing forest is actually second growth. In the lighter, better drained soils, the second

growth has generally manifested itself in more Cottonwood, oak, White Birch, and willow. The wetter soils typically support the original species in the second growth.

Native to the County at large are several species of shrubs. These include blueberries, wild red raspberry, and blue huckleberries. Also indigenous to this area are black chokeberry, steeple bush, willowy shrubs, fruited thorns, dogwoods, and the meadow rose.

Wildlife

Historical accounts indicate that the Saginaw Valley was originally teeming with wildlife. A lively fur trade began in Saginaw before 1825. French, American, and British trappers all pursued the pelts of otter, martin, fisher, mink, muskrat, fox, and beaver. Hunters in this area could find all kinds of wild beast.



Photo 1-8 **Creek Floodplains and the** Edges of Woods can be Good Wildlife Habitat

Now, the most popular hunting areas in Michigan lie west of Saginaw County. Yet the County is among the leaders in certain game. Duck hunting remains popular in Saginaw County. The County also ranks high in cottontail rabbit hunting. In contrast, it ranks relatively low in deer hunting. Other game animals are pheasants and guails, ruffed grouse, which can be found in woodlots, and woodcocks, which make wet woodlands their habitat.

Saginaw County has a large population of raccoons, although they are not considered a game animal. It is also a popular congregating area for Canadian geese. The County has an average population of partridges relative to other counties, and is within range of beaver, fox and grey squirrel, and sandhill crane populations.

HISTORY AND SOCIAL SETTING

Early History

Before the arrival of settlers of European origin, the entire County was in the midst of a dispute. The area was controlled by the Sauk, a warlike Indian tribe which had driven out all other tribes. In retaliation, the Pottawattamie and Chippewa Indians united against the Sauk. Their massive war efforts exterminated all but a handful of the Sauk, who were then exiled into the custody of the Sioux nation.

In the early 1800's, trappers and traders worked the Saginaw Valley, and settled north of Frankenmuth near the mouth of the Saginaw River. Despite the American claims on the area as the result of two wars with the British, the Saginaw Valley was technically owned by the Indians. It was not until 1819 when Governor Lewis Cass signed the Treaty of Saginaw with the Chippewa Indians that much of this area was deeded to Michigan. In this treaty, Michigan acquired the northern "thumb" area; about one fourth of the Lower Peninsula.

However, the land beneath Frankenmuth was not ceded by the 1819 Treaty of Saginaw. In fact, it was specifically "reserved" out. Article 2 of that document sets aside various parcels for the exclusive future use of the Chippewa Nation. Among those was one of 8,000 acres "at the village of Otusson." Chief Otusson's village, according to Joseph Fletcher's 1822 survey, must have been within the bounds of present Frankenmuth.

The "reserve" corresponds approximately with the horizontal middle third of Frankenmuth Township. Based on the size of the grant, Otusson's village would have had considerable import, and his signature, as "Otauson", appears on the Treaty.

It was an 1837 treaty, negotiated in Detroit by Henry Schoolcraft, which reclaimed from the Chippewa the various grants reserved for them in the Saginaw Treaty. This "tidying up", in preparation for Michigan's statehood, is what made the lands available for sale to our first settlers a few years later.

Frankenmuth was settled in 1845 by 15 Germans, led by the Reverend August Craemer, a Lutheran minister. This small band of settlers came to the area from Neuendettelsau, Germany, for the express purpose of evangelizing to the Indians. The first structure they built was a church, and the second was a school. Seven years after their arrival, Frankenmuth boasted eighty cabins and farmhouses.

Education

In the early years, the school was intended for the joint use of the Indians and the settlers' children, but because of the nomadic lifestyle of the Indians, school facilities became devoted to settlers' children only. German was the language of Frankenmuth until after 1857, when a public school was established that taught English. An unusual school system evolved, one which carried out public and parochial instruction side by side.



Photo 1-9 Early School in Frankenmuth

The coalition approach ended in the early 1900s, and both systems grew. In 1946, eight years after the public school system began providing bus transportation for its students, the Frankenmuth schools merged with township schools to become one school district. Since then, the Frankenmuth School District has grown to service a sixty-four an eighty square mile area.

Religion

The influence of religion in Frankenmuth has been a dominant force throughout its history. The first building in the new settlement housed what was to be the St. Lorenz Lutheran congregation. Thirty four years later, St. John's Lutheran Parish was established as a consolidation of other area churches. Over eighty years passed before the establishment of a non-Lutheran church. The Frankenmuth United Methodist Church was organized in 1962, and the Blessed Trinity Catholic Church began five years later. The Bible Church was established in 1982. <u>Since 2010, two new churches have been founded</u>. They are Hope Community Church and King of Kings Lutheran Church.



Photo 1-10 St. Lorenz Church is an Area Landmark

Currently, Frankenmuth churches attract members from all over the Frankenmuth area, and beyond. Aggregate church membership is 7,959, and exceeds the population of both the city and township. Lutheran remains the principal denomination, with about 5,700 members.

Roman Catholic membership stands at 1,618, and there are approximately 554 Methodist members and 91 members of Frankenmuth Bible Church.

Employment

Frankenmuth began as a self-sufficient town, with agriculture, lumbering, and milling as the main industries. Just two years after the arrival of the first Bavarian settlers, a dam was built to harness the power of the Cass River, and the first sawmill was operational. A year later, the dam was also powering a grist mill. These two mills enabled Frankenmuth settlers to utilize their abundant timber resources, and to establish a budding farming industry. Increased lumbering activity opened another sawmill, the road to Flint was expanded from a path, and more travelers stopped in to enjoy Frankenmuth's hospitality.

Frankenmuth was growing, and in 1856 its first hotel, the Exchange Hotel, was erected to capitalize on the increasing traffic between Saginaw, Flint and Detroit. The famous Frankenmuth hospitality began here, and was to gain importance and eventually become the dominant industry. The Cass River Brewery opened its doors in 1862, and became Geyers in 1874. It belonged to the same family for over a hundred years. The Geyer Brothers Brewery was purchased, remodeled and opened as the Frankenmuth Brewery in 1987 and then reopened as a microbrewery in 2003.



Photo 1-11 Memtron Technologies, a Frankenmuth Employer

The turn of the century brought three more hotels, and the rebuilding of the Exchange. Frankenmuth was becoming known for its now-famous chicken dinners. Another brewery opened up, the Frankenmuth Brewing Company, capitalizing on the area's agricultural and milling capabilities. It eventually became Carlings and Heileman. It closed in 1990 and the building was removed in 2000.

A massive flood in 1912 threatened Frankenmuth's hospitality industry, but patrons paddled to flooded hotels and dining rooms in rowboats. Spring floods continued to plague Frankenmuth hosts, and in 1952, an earthen dike was built along the north side of the Cass River to protect nearby businesses. The solution to flooding problems in the business district facilitated the remodeling of the district to the traditional Bavarian motif.

As the automobile became the dominant mode of transportation in Michigan, hotels declined in popularity. Former hotel rooms were converted to dining rooms, and continued to lure customers. When Interstate 75 was constructed in 1958, Frankenmuth found itself six miles away from the main highway; a bit "off the beaten track." But the city's unique atmosphere and Bavarian tradition attracted more visitors than ever. Frankenmuth also gained in population due to the highway, and now many Flint and Saginaw workers reside there.

Today, Frankenmuth hospitality continues to be the dominant industry and the town draws 2-3 million visitors a year (according to the Michigan Travel Bureau). This makes Frankenmuth one of the top destination tourist locations in the state. Yet the community can also boast of a diversified economy in which crafts and collectibles, mills, and food processing can all flourish amongst a host of different businesses.

The employment base is largely white collar, which is unusual considering the blue collar nature of Frankenmuth's history. Aside from insurance and banking offices which grew out of local operations, no major office, research, or financial institutions have moved to the area to attract white collar employees. Frankenmuth has essentially a service and blue collar history (mills, artisans, and hotels and restaurants). The success of the community and its careful development have made it affluent however, and caused it to be an attractive exurb for white collar commuters to other cities. This unusual history is a credit to the community's success, but has created one problem in that many employees in the community, including some white collar, find it difficult to afford to be Frankenmuth residents.

Community Values

Despite sizable population gains from 1950 to 2000 2010, the Frankenmuth area remains a relatively homogeneous community. Many citizens are lifelong residents of the area. Several businesses that were historically influential remain under the ownership of the same family.

From the beginning, Frankenmuth residents have had a system of shared values dating back to their German roots. Residents adhere strongly to values such as self reliance, pride, the work ethic, honesty, frugality, and a dedication to quality. The community as a whole is quite religious, supporting five churches and a Lutheran school.

These values become evident in the arts, crafts, cleanliness, upkeep of buildings and grounds and hospitality for which Frankenmuth is so well known. This reputation has paid off handsomely in the repeat business and referrals of satisfied customers.

Frankenmuth can credit these values for making it an attractive and successful community.



Photo 1-12 Frankenmuth Residents Value a Well-Kept Community

Social Challenges

A Survey of Local Leaders and Town Meeting visioning sessions held in the fall of 2003 indicated that some Frankenmuth residents perceive certain conflicts. Newcomers to the area mention feeling like "outsiders," even after ten years of residence. The cohesive social structure of Frankenmuth may be discouraging to newer residents. Other survey respondents referred to a narrow power structure

City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan

May 2015 1-13 within government and business. Many long time residents, active in their community for decades, make decisions that affect the community as a whole. Some residents who may wish to become more involved feel powerless. Although such expressions should not be taken lightly, these feelings are often prevalent in small towns and in communities which emphasize citizen participation (as in Frankenmuth) and therefore heighten expectations of action on items on which citizens express concerns.

PATTERN OF URBAN DEVELOPMENT

Frankenmuth began as a self-sufficient community, which served the needs of residents and visitors. As the state of Michigan grew, more movement within the state was inevitable. The circulation created new opportunities and opened up new markets for industry and commerce worldwide.

The advent of the automobile revolutionized how people conducted their lives and created new pressures on the pattern of land development. The entire Great Lakes Region and Michigan in particular, has felt the effects of the automobile. The auto industry created employment for millions in this region, and played a large role in the sprawling urban landscape that typifies "suburbia". City workers have moved to the suburbs and beyond, engulfing small towns into the urban influence. The eastern Lower Peninsula has become more urbanized, in an age when virtually any market is accessible. The area has taken the form of a megalopolis, sweeping from the Saginaw Bay past Detroit to Cleveland, Pittsburgh, and beyond. Urban development connects metropolitan areas, creating one largely extended, built region with the characteristics of one huge city with declining open spaces between major cities.

This phenomenon is caused by several factors. First among these is that this region shares the same industrial base: automobiles, auto parts, and steel. The industrial might that is clustered around the Great Lakes became even more powerful with the opening of the St. Lawrence Seaway in 1959. A direct and continuous passage links the iron mines in northern Michigan, the coal mines in Pennsylvania, the steel plants in Gary, Pittsburgh, and Youngstown, auto parts and assembly plants in Detroit, Flint and Saginaw, to world markets in faraway continents. The establishment of these links played a large role in the rise of the auto industry here in Michigan.



Photo 1-13 Frankenmuth Tries to Accommodate the Automobile While Retaining its Character

As world centers in shipping were being connected in trade, the Interstate Highway system linked market centers within the region. Saginaw and Flint became a short drive apart. Workers and goods could move freely and quickly between them. Residents from points south could travel farther north. Many stopped at Frankenmuth.

In addition, vast swaths of agricultural land were becoming valuable for development. A growing market for residential property brought a housing boom to Frankenmuth in the 1960s, when the city's population grew by 64 percent, and the township grew by almost 30 percent. The quality of life in the community was attracting new residents who were employed outside of the immediate area, many of whom were migrating from the inner cities and older suburbs.

Thus, Frankenmuth began to assume new roles in relation to other cities. In addition to producing goods for transport to new markets, it now serves as a greater magnet for markets of its own. Not only does it accommodate travelers between Flint and Saginaw, but it also serves as a major tourist destination and a community with an attractive residential character.

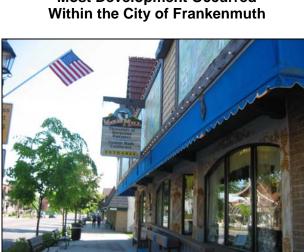


Photo 1-14 Most Development Occurred

Prior to the construction of Interstate 75, a major corridor between Flint and Bay City was Michigan Highway 83. Because M-83 bisects Frankenmuth, the city was able to capitalize on its location along a well-traveled route. Since the introduction of I-75, visitors to Frankenmuth must travel through one of two other townships to reach their destination. Traffic along these routes has encouraged the establishment of many automobile-oriented establishments. These firms are able to take advantage of Frankenmuth's image without necessarily offering the high quality of services and development that typify Frankenmuth. This situation causes a potential conflict in that the presence of strip commercial development along Frankenmuth's access routes may detract from the community's image and add to traffic problems.

Development in Frankenmuth has taken place primarily within the city. Most commercial establishments have located along M-83 or its major cross streets. The downtown business district is in human scale, and highly suited to pedestrian movement. Residential areas are clustered in an orderly fashion around the business district.

Because of development pressures, most of the growth of the city has occurred north of the Cass River, on soils highly suited to agriculture. The north side of the city is on higher ground, away from the danger of floods. Churches, schools, and parks are located there.

Yet, the convenience of building on the north side is at the expense of the community's farming industry. The survey of local leaders and visioning sessions at Town Meetings show that preservation of the agricultural base remains high in the list of priorities among Frankenmuth citizens in both the city and township. The lower quality of soils for agriculture near the river and in places south to the township line makes these areas more suited for urban expansion. If future development occurred here, it would also take pressure off agricultural lands north of the river.

Most of the industrial activity occurs on the periphery of the commercial district, primarily to the south and north, with some additional milling activity in Gera, in the township's north end. The City has purchased 15.2 acres of land on the east side of North Main Street for future high tech, research, and/or light industrial development. In 2014, the first industry, Kremin Manufacturing, located within this "business park" acreage and now occupies approximately six acres of the land. It is anticipated that with this investment, other similar users will consider locating within the remainder of the property.



Photo 1-15 Grain Facility in Gera

Chapter 2 DEMOGRAPHIC, ECONOMIC & TAX BASE CHARACTERISTICS

INTRODUCTION AND SUMMARY

This chapter presents information on the population and economy of the City of Frankenmuth and Frankenmuth Township. It also looks at change in the population and economy that could affect planning for the future of the two communities.

Demographic and economic trends reveal that Frankenmuth needs to plan for a growing population of smaller sized families, a growing elderly population and many singles. High community standards and a strong work ethic help keep educational levels and employment high. Agriculture, tourism and retail trade will remain strong sectors of the Frankenmuth economy.

The number of people living in the Frankenmuth community increased through the 2000 2010 census with most of that all of the growth occurring in the city. While Frankenmuth displays strong family values, with a multi-generational population including many children and older persons, average household size has declined. This follows a nation-wide trend. Frankenmuth Township has a high proportion of family households while a greater proportion of young singles, young couples, and elderly live in the city. The relatively high elderly population in the community may be part of the reason there are over a thousand persons with disabilities, about one in six persons. What may be most notable within the characteristic changes of the community is the fact it experienced population growth during a decade that witnessed a decline in population within the State and in Saginaw County.

Frankenmuth has a well educated population, with a very high employment rate. The rate of unemployment is far below the average for Michigan <u>along with a school system that has a level of statewide and national recognition.</u>

People tend to work in or very close to Frankenmuth, with relatively short commute times compared to other parts of the state. <u>However, with the down turn in the national and state economies in 2008,</u> some residents were forced to transfer to positions that were located in southeast Michigan or the Lansing area thereby increasing their commute time.

Income is fairly high in Frankenmuth and the number of families under the poverty level is extremely low. Work is generally in the private sector, with a large component in hotel and restaurant businesses and in retail sales. Many also work in insurance, finance and real estate, as well as in education and health care. Very few residents work in manufacturing and farming, but those industries still provide vital resources towards a well balanced community.

An analysis of the State Equalized Value (SEV) of real property in Frankenmuth City and Township showed that agriculture land value is still strong; commercial and residential land values are increasing; while the value of industrial land has declined.

DEMOGRAPHICS

Population

The combined population of the city and township increased by 745 373 persons between 1980-1990 and 2000 2010 to 6,887 6,903, according to the US Census (See Table 2-1). This was a 12% 5.7% increase. Within the same period, the population of the city increased by 1,085 536, to 4,838 4,944 while that of the township declined by 340 163 to 2,049 1,959. The city's increase was 29%, 12.2%

nearly a third, while the township lost -14.% 7.7%. In contrast, the population in Saginaw County fell by 18,020 11,777 persons or 8% 5.6% from 1980 1990 to 2000 2010.

Community	1980 1990	1990 2000	2000 2010	Total Change 1990- 2010	% Change 1990- 2010
				1,085	29%
Frankenmuth City	4,408	4,838	4,944	536	12.2%
Frankenmuth				- 340	-14%
Township	2,122	2,049	1,959	-163	-7.7%
				745	12%
City and Township	6,530	6,887	6,903	373	5.7%
				-18,020	-8%
Saginaw County	211,946	210,039	200,169	-11,777	-5.6%

 Table 2-1

 Population of Frankenmuth City and Township, 1980-2000-1990-2010

Source: US Census Bureau, 2000

The loss of population in the township is due primarily to a decline in the number of people in many households (although population per household in the township is still higher than in the city). This happens as children move out of the home, single people wait longer to get married or couples become singles through death or divorce.

If current trends continue, the combined Frankenmuth City and Township population should increase by 750 <u>491</u> persons, or about 11% <u>7%</u> between 2000 and 2020 <u>2030</u> (See Table 2-2). Most of this increase will likely take place within the city, as additional land is developed within the urban limit line and then annexed into the city. Additional decline in population per household in the township will also reduce the population of the township if trends continue. The projected population increase in Frankenmuth contrasts to a projected <u>10%</u> population decline in Saginaw County, or <u>20,388</u> persons, from 2000 to 2020 <u>2030</u>, if current trends continue. However, as this is a slow rate of growth, it is quite possible that if demand rose, considerably more new persons could reside in Frankenmuth City and Frankenmuth Township.

Community	1980 1990	1990 2000	2000 2010	2010 2020	2020 2030	Total Change 2000- 2030	% Change 2000- <mark>2030</mark>
Frankenmuth			5,418	5,961		1,123	23%
City	4,408	4,838	4,944	5,057	5,215	649	15%
Frankenmuth			1,847	1,677		-372	-18%
Township	2,122	2,049	1,959	1,878	1,801	-158	-8%
City and			7,265	7,637	7,637	750	11%
Township	6,530	6,887	6,903	6,935	7,016	491	7%
Saginaw County	211,946	210,039	200,169	198,661	189,651	-20,388	-10%

Table 2-2 Population of Frankenmuth City and Township, 1980-2020 <u>1990-2030</u>

Source: US Census Bureau. Projections are straight line

Households

The number of households increased by 800 362 to 2,123 2,200 between 1980-1990 and 2000 2010 in the City of Frankenmuth and by 18 10 in Frankenmuth Township (See Table 2-3). This was an increase of 60% 20% and 3% 1%, respectively. The increase for both the city and the township was 818 372, or 40% 15% between 1980 1990 and 2000 2010. This compares to an increase in households of only 6% 1% for Saginaw County.

Community	1980 1990	1990 2000	2000 2010	Total Change 1990- 2010	% Change 1990- 2010
Frankenmuth City	1,838	2,123	2,200	362	20%
Frankenmuth Township	711	728	721	10	1%
City and Township	2,549	2,851	2,921	372	15%
Saginaw County	78,256	80,430	79,011	755	1%

 Table 2-3

 Households in Frankenmuth City and Township, 1980-2000 1990 - 2010

Source: US Census Bureau

Table 2-4

Households in Frankenmuth City and Frankenmuth Township, 1980-2020 1990-2030

Community	1980 1990	1990 2000	2000 2010	2010 2020	2020 2030	Total Change 2000- 2020 2030	% Change 2000- 2020 2030
Frankenmuth City	1,838	2,123	2,200	2,267	2,359	236	11%
Frankenmuth Township	711	728	721	696	680	-48	-6.6%
City and Township	2,549	2,851	2,921	2,963	3,039	188	6.6%
Saginaw County	78,256	80,430	79,011	75,680	75,258	-5,172	-6.4%

Source: US Census Bureau. Projections are straight line-by Planning & Zoning Center, Inc.

The number of households has generally increased in the United States in recent decades at a rate greater than population increase as more families are split by divorce into two households, people wait until they are a little older to get married and people live longer independently in their own dwelling after losing a spouse. If- The rate of change in the number of households in the city and township between 1980-1990 and 2000- 2010 were to hold steady was 15% or 372 dwelling units. With the decline in households in the township and the reduction of family size within the city, the combined number of households is anticipated to increase only 6.6% or 188 dwelling units between 2000 and 2030, there could be 854 more households by 2020, an increase of 30% (See Table 2-4). Most of this increase would be in the city. Based on current trends, the average number of new households is slightly greater than the average number of new dwelling units constructed per year which has averaged 28.9 18.1 units/yr. over the last 26 20 years, and about 25 units/yr. over the past ten years in the city and much less in the township.

Between 1980 1990 and 2000, 2010 the average number of persons per household dropped from 2.77 2.63 to 2.16 2.25 in the City of Frankenmuth, a decline of 22% 14.4% (See Table 2-5). In Frankenmuth Township, the average household size went up between 1980 and 1990, and went down between 1990 and 2000 2010 from 2.98 to 2.72. The result was an increase of 49% over 20

years. During the same 20 years, the number of persons per household dropped $14\% \frac{6.3\%}{2.70}$ in Saginaw County, from $\frac{-2,87}{2.70}$ to $\frac{2.46}{2.53}$.

This decline in the number of persons per household follows a national trend. Population per household figures is not likely to fall much further in the city unless more elderly housing or elderly care facilities were are constructed. They may fall in the township if more existing residences are annexed into the city or more new households are occupied by smaller families, or families without children.

Table 2-5

				Total Change 1980- 2000 1990-	% Change 1980- 2000 1990-
Community	1990	2000	2010	2010	2010
	2.26			-0.61	-22%
Frankenmuth City	<u>2.40</u>	2.28	2.25	-0.15	6%
				0.49	21%
Frankenmuth Township	2.96	2.79	2.72	0.24	-8%
				-0.41	-14%
Saginaw County	2.67	2.46	2.36	-0.31	-12%

Persons per Household, 1980-2000 <u>1990 - 2010</u>

Source: US Census Bureau

A greater percentage of households are occupied by families in the township (84%82.9%) than the city (62%54.9%). This is because there are a greater number of apartments in which young singles and seniors live in the city, where they are closer to jobs and activities. In the city, 36%43% live alone while only 15%12.9% do so in the township. The percent of dwelling units occupied by persons greater than 65 years old is 20%26% in the city and only 8%7% in the township (See Table 2-6).

These changes in family characteristics follow trends of other communities in which families with children seek homes in rural or suburban areas and singles, two-person and young family households remain in or return to more urban areas. This suggests that apartments and other forms of multiple family housing will continue to be desirable in Frankenmuth City.

Table 2-6 Family Characteristics in Dwelling Units, 2000-2010

	2010	% Family	% Non-family Occupied Dwelling Units		
	2000	Occupied	Total	% Livin	g Alone
	Dwelling Units Total	Dwelling Units			Greater than 65
Community				Total	years old
Frankenmuth City	<mark>22432,240</mark>	54.8 62%	<mark>45.238%</mark>	<mark>43</mark> 36%	<mark>26%20%</mark>
Frankenmuth Township	729 728	<mark>82.984%</mark>	<mark>17.117%</mark>	<mark>12.9</mark> 15%	<mark>7.0</mark> 8%
Saginaw County	77,412 76,116	<mark>64.469%</mark>	<mark>35.6</mark> 31%	<mark>30.726%</mark>	<mark>12.510%</mark>

Source: US Consus Bureau American Community Survey

Age

The proportion of people of different ages varies between Frankenmuth City and the Township. There is a high proportion of people 18 years or under in Frankenmuth Township (See Figure 2-1 Table 2-7). There is a large group of young people in Frankenmuth City as well, but there is also a very high proportion of people aged 65 and over(See Figure 2-2 Table 2-8). Of this latter group, there are more females than males. This information suggests that the city and township may need to focus the provision of more services toward both the young and the old.

Figure 2-2 Table 2-7

Age	Male 1,004	Percent in age group	Percent in age group
Under 19	265	26%	24%
19-24	41	4%	4%
25-34	74	7%	7%
35-44	110	11%	13%
45-54	171	17%	17%
55-64	148	15%	16%
65+	195	20%	19%

Frankenmuth Township Population by Age and Gender, 2000-2010

Figure 2-<u>1Table 2-8</u> City of Frankenmuth Population by Age and Gender, 2000-2010

Age	Male 2,221	Percent in age group	Percent in age group
Under 19	539	24%	19%
19-24	97	4%	4%
25-34	191	9%	7%
35-44	230	10%	10%
45-54	327	15%	14%
55-64	323	15%	14%
65+	522	23%	33%

Eliminate these two Figures below and replace with two tables listing actual data above

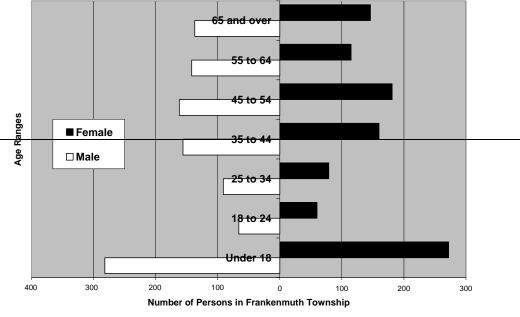
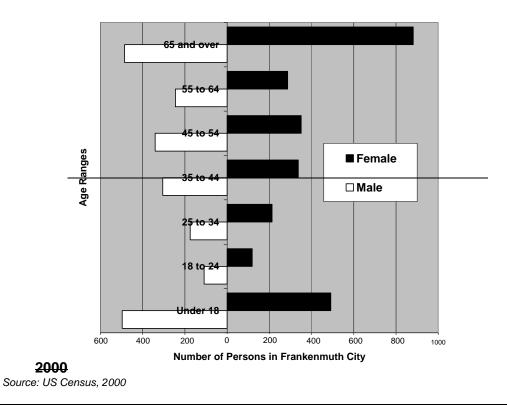


Figure 2-1 Frankenmuth Township Population by Age and Gender, 2000

Source: US Census, 2000





City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan April 2015

Education

Frankenmuth citizens are a fairly well educated populace (See Table 2-7 2-9). Of people 25 years and over, about $\frac{30\%}{25.6\%}$ graduated from high school or have a high school equivalency and nearly $\frac{60\%}{68.0\%}$ have a college education or at least some college. Compared to the average for the whole state of Michigan, the Frankenmuth communities have a smaller percentage with less than a high school education in 2000 2010 and slightly higher percentages with college degrees.

		Percent of Population 25 Years and Over								
Community	Less than High School	High School (Inc. HS equiv.)	Some College	Associates Degree	Bachelor's Degree	Master's Degree	Profes- sional Degree	Doctorate		
Frankenmuth City	11.6% 6.6%	30.2% 25.6%	18.6% 23.7	7.9% 9.6%	21.8% 23.5%	8.0% 11.4%	1.4% Combine w. Masters	0.5% NA		
Frankenmuth Township	11.7% 5.8%	30.7% 26.1%	22.3% 20.3%	9.1% 8.5%	15.9% 26.7%	6.4% 13.6%	2.6% Combine w. Masters	1.2% NA		
Michigan	16.5% 11.6%	31.3% 31.5%	23.3% 25.4%	7% 8.1%	13.7% 15.5%	5.7% 7.0	1.6% 1.7	0.8% 0.9%		

 Table 2-7-2-9

 Educational Attainment in Frankenmuth City and Township, 2000-2010

Source: US Census, 2000-2010 – American Community Survey

Disability information not published for small communities in 2010

Disabilities There are a substantial number of persons in the Frankenmuth community with disabilities. There were 789 persons five years and older with disabilities in Frankenmuth City in 2000 and another 268 in Frankenmuth Township. This is a total of 1,057 persons and 16.4% of the population of both communities. It is presumed a significant number of these persons are elderly and live in one of the elderly housing or nursing care facilities in the city (See Table 2-8 2-10).

Table 2-8-2 2-10Persons with Disabilities in Frankenmuth City and Township, 2000

Community	Population 5 years and older	Persons with a Disability (5 years and older)	Percent with a disability
Frankenmuth City	4,452	789	17.7%
Frankenmuth Township	1,992	268	13.5%
City and Township			
Total	6,444	1,057	16.4%

City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan April 2015

ECONOMY

Existing and Projected Jobs by Type

Employment in Frankenmuth has remained strong in a weak economy, with an extraordinarily low unemployment rate. The labor force in Frankenmuth City was 2,225 2,172 in 2003 2010, up 25 down 53 persons from 2002 2003 and in Frankenmuth Township it was 1,175 1,141 in 2003 2010, also up down 59 25 from 2002. The unemployment rate, in 2003, was 1.9% (year to date average as of September) in Frankenmuth City and 2.0% in Frankenmuth Township compared to 9.1% for Saginaw County. In 2010, the unemployment rate increased to 3.3%, 7.7% and 13.4% respectively.(See Table 2-9 2-11). This is reflective of the recession that began in 2008. However, an improving economy in 2013 is showing positive results that are returning unemployment levels back to 2003 percentages.

Community	2002 2003 Labor Force	2002 2003 Annual Average Employ- ment	2002 2003 Annual Average Unemploy- ment	2002 2003 Annual Average Unemploy- ment Rate	2003 2010 Labor Force	2003 2010 Year to Date Average Employ- ment	2003-2010 2010 Year to Date Average Unemploy- ment	2003 2010 Year to Date Average Unemploy- ment Rate
Frankenmuth City	2,225	2,175	50	1.9%	<u>2,172</u>	<u>2100</u>	<u>72</u>	<u>3.3%</u>
Frankenmuth Township	1,200	1,175	25	2.0%	<u>1,141</u>	<u>1053</u>	<u>88</u>	<u>7.7%</u>
Saginaw County	102,800	93,450	9,350	9.1%	<u>92,361</u>	<u>79,995</u>	<u>12,354</u>	<u>13.4%</u>

Table 2-9-2-11 Frankenmuth Labor Force, Employment and Unemployment, 2002-2003-2010

Source: MDCD/ESA/OLMI, Labor Market Analysis Section.<u>& American Community Survey</u>

Employment figures organized by sector were only available from the Michigan Economic Development Corporation for Saginaw County as a whole. These are shown in Table 2-10. Construction, finance and real estate, services and government employment increased jobs between 1997 and 2000 and will likely continue to modestly increase those numbers. <u>Note:</u> The sources of data changed between 2000 and 2013.

Employment figures for the largest employers in Frankenmuth and the Township are shown in Table $2-11 \ 2-12$. About half the jobs in Frankenmuth are part-time.

- əagınaw County Em	pioyment	by maabay	, 1001 L 0	JU - <u>2</u>UIJ
			Total	₩
			Change	Change
			1997-	1997-
	1999	2000	2000	2000
Classification	2000	2013	-2013	-2013
Private	104,377	79,995	-24,382	_24.4%
Ag, service.,				
forestry, fishing,				
other	1,249	1,895	+646	+51.7%
Mining	92	<u>45</u>	-47	-51.1%
Construction	6,290	3,534	-2,756	_43.8%
Manufacturing	21,344	12,187	-9,157	-42.9%
Transportation				
and Public Utilities	5,376	<u>4,680</u>	-696	-12.9%
Wholesale Trade	4,537	1,913	-2,624	-57.8%
Retail Trade	24,178	10,972	-13,206	-54.6%
Finance,				
Insurance and Real				
Estate	6,690	3,887	-2,803	_41.9%
Services	34,621	33,560	-1,061	-3.0%
Government and				
Government				
Enterprises	12,267	7,332	_4935	_40.2%
Federal, civilian	1,434	NA		
Military	434	NA NA		
State and local	10,399	NA		
Total Employment	118,258	79,995		

Table 2-10 Saginaw County Employment by Industry, 1997-2000 - 2013

options listed нα

Table 2-112-12Major Employers in Frankenmuth in 2010

			Numb	loyees						
			Full	Part						
Category	Name of Employer	Street Address	Time	Time	Total					
FRANKENMUTH T	FRANKENMUTH TOWNSHIP									
Education, Healt	thcare									
	Lutheran Home Care									
	Agency	9710 Junction Rd.	24	17	41					
Manufacturing, C	construction									
	Bavarian Builders	9720 Junction Rd.	6	3	9					
		Plant: 2405 S. Gera								
		Rd., Elevator: 2416 S.								
	Star of the West, Gera	Gera Rd.	6	1	7					
Retail Trade										
	Bernthal Packing	9378 Junction Rd.	14	6	20					
	Grasel Graphics	9710 Junction Rd.	10	6	16					
Totals of These 5 F	Frankenmuth Township									
Employers			60	33	93					

City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan April 2015

Table 2-11 <u>2-13</u>	(Continued)
Major Employers in Fra	inkenmuth in 2010

			Number of Employees			
			Full Part			
Category	Name of Employer	Street Address	Time	Time	Total	
FRANKENMUTH						
Education, Hea						
	Covenant Health Care	600 N. Main St.	24	10	34	
	Diversified Therapy &	193 E. Jefferson &				
	Fitness	195 Mayer	10	29	39	
	Frankenmuth School					
	District	941 E. Genesee St.	102	71	173	
	Independence Village	255 Mayer Rd.	34	107	141	
	Tendercare Health Center	500 W. Genesee St.	85	29	114	
	The Lutheran Home	725 W. Genesee St.	85	165	250	
	St. Lorenz Elementary					
	School	140 Churchgrove Rd.	47	67	114	
Finance, Insur						
	Frankenmuth Credit					
	Union	580 N. Main St.	55	6	61	
	Frankenmuth Fund					
	Raising	320 Heinlein St.	11	17	28	
	Frankenmuth					
	Insurance	1 Mutual Ave.	501	69	570	
	Rummel Insurance					
	Agency	522 S. Main St.	23	2	25	
Hotel,						
Restaurant						
	Bavarian Inn Lodge	1 Covered Bridge Ln.	61	184	045	
			•••		245	
	Bavarian Inn Restaurant	713 S. Main St.	63	385	245 448	
		713 S. Main St.				
	Bavarian Inn Restaurant	713 S. Main St. 281 Heinlein St.				
	Bavarian Inn Restaurant Black Forest Brew		63	385	448	
	Bavarian Inn Restaurant Black Forest Brew Haus/Sullivan Catering		63	385	448	
	Bavarian Inn Restaurant Black Forest Brew Haus/Sullivan Catering Drury Inn & Marv Herzog	281 Heinlein St. 260 & 501 S. Main St	63 35	385 50	448 85	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuites	281 Heinlein St.	63 35	385 50	448 85	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth Brewing	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St.	63 35 24 10	385 50 6 22	448 85 30 32	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.	281 Heinlein St. 260 & 501 S. Main St	63 35 24	385 50 6	448 85 30	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth Jellystone	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St.	63 35 24 10	385 50 6 22 0	448 85 30 32	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystonePark	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St.	63 35 24 10 60 4	385 50 6 22 0 20	448 85 30 32 60 24	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth Jellystone	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St.	63 35 24 10 60	385 50 6 22 0	448 85 30 32 60	
	Bavarian Inn Restaurant Black Forest Brew Haus/Sullivan Catering Drury Inn & Marv Herzog Hotel Fairfield Inn & Springhill Suites Frankenmuth Brewing Co. Frankenmuth Jellystone Park McDonald's Restaurant Zehnder's of	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St.	63 35 24 10 60 4	385 50 6 22 0 20	448 85 30 32 60 24	
	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's Restaurant	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St.	63 35 24 10 60 4	385 50 6 22 0 20	448 85 30 32 60 24	
Manufacturing,	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's RestaurantZehnder's ofFrankenmuthConstruction	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St. 478 N. Main St.	63 35 24 10 60 4 15	385 50 6 22 0 20 37 550	448 85 30 32 60 24 52	
Manufacturing,	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's RestaurantZehnder's ofFrankenmuth	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St. 478 N. Main St.	63 35 24 10 60 4 15	385 50 6 22 0 20 37	448 85 30 32 60 24 52	
Manufacturing,	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's RestaurantZehnder's ofFrankenmuthConstruction	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St. 478 N. Main St. 730 S. Main St.	63 35 24 10 60 4 15 100	385 50 6 22 0 20 37 550	448 85 30 32 60 24 52 650	
Manufacturing,	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's RestaurantZehnder's ofFrankenmuthConstructionMemtron Technologies	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St. 478 N. Main St. 730 S. Main St.	63 35 24 10 60 4 15 100	385 50 6 22 0 20 37 550	448 85 30 32 60 24 52 650	
Manufacturing,	Bavarian Inn RestaurantBlack Forest BrewHaus/Sullivan CateringDrury Inn & Marv HerzogHotelFairfield Inn & SpringhillSuitesFrankenmuth BrewingCo.Frankenmuth JellystoneParkMcDonald's RestaurantZehnder's ofFrankenmuthConstructionMemtron TechnologiesStar of the West Milling	281 Heinlein St. 260 & 501 S. Main St 430 & 530 S. Main St. 425 S. Main St. 1339 Weiss St. 478 N. Main St. 730 S. Main St. 530 N. Franklin St.	63 35 24 10 60 4 15 100 76	385 50 6 22 0 20 37 550 5	448 85 30 32 60 24 52 650 81	

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	Zeilinger Wool Co.	1130 Weiss St.	13	18	31
Retail Trade					
	Air Adv/Power				
	Comm/Zimco	465 N. Franklin St.	43	3	46
	Bavarian Inn Other				
	Properties	S. Main St.	13	48	61
	Bronner's Christmas				
	Wonderland	25 Christmas Ln.	120	325	445
	Frankenmuth River Place	925 S. Main St.	36	58	94
	Galsterer Ford Mercury	504 N. Main St.	11	2	13
	Kern's Sausages	110 W. Jefferson St.	3	15	18
	Kroger of Frankenmuth	435 N. Main St.	44	50	94
	McClellan Properties	570 S. Main St.	16	28	44
	Mike Young Buick GMC	312 N. Main St.	49	3	52
	Nuechterlein Electric	304 List St.	25	2	27
	Oscar Rau Furniture	360 S. Main St.	8	7	15
	Satow Drugs	308 S. Main St.	25	3	28
	Schaefer & Bierlein				
	Chrysler Dodge Jeep	1015 Weiss St.	24	9	33
	Tri City Controls	1229 Weiss St.	3	3	6
	Weiss Equipment, Inc.	450 N. Main St.	22	3	25
Government	•••	•			
	City of Frankenmuth	240 W. Genesee St.	29	20	49
	Employers in the City of				
Frankenmuth			1,983	2,440	4,423
Totals of 45 Employ	vers in Both the City and				
Township			2,043	2,473	4,516

Source: Survey of Employers, June 2010

The employment data from the City of Frankenmuth and the Michigan Department of Labor and Economic Growth suggests that a majority of the people who are employed in Frankenmuth live outside the city and commute to Frankenmuth to work.

Since the inventory of employment was taken in 2010, there have been some very positive development indicators for the City and the Township. There have been expansions to various businesses; Star of the West and Splash Village Motel while the Frankenmuth Credit Union is in the process of expansion. A new tourist accommodation has also been constructed, with the 68 room Holiday Inn Express.

New facilities have also been constructed or are in the process of being constructed in other sectors of the local economy. Kremin Manufacturing located in the City's industrial park at the north end of the City and Great Lakes Eye Care is in the process of adding space for four new medical related services on West Genesee Street. Finally, a new elder-care facility, Covenant Glen, has been constructed within the mixed use PUD area southwest of the corner of Main and Jefferson Streets. This facility not only provides additional employment, but also serves the housing demand for elder care within the community.

Worker Travel Time

Workers living in the Frankenmuth area do not have to travel very far to find employment. Over onehalf the workers in Frankenmuth City and Township travel only twenty minutes or less to work. (51.9%). (see Table 2-12.2-14). Three quarters of residents of the city and township travel one half hour or less to work (Table 2-13 2-14) shows that 79% 78.4% and 86% 78.2% of workers 16 years or older in Frankenmuth City and Frankenmuth Township, respectively, work in Saginaw County. That is a reduction of 85 workers from 2000 who live in the city or township that are now working outside of the county. This is also reflected in the travel time to work. There was a 6.3% increase in the number of workers who travel over 45 minutes each day to reach their place of employment. With majority of commuters within the bracket exceeding one hour, would indicate persons are traveling to southeast Michigan and Lansing for their jobs.

Table 2-12 2-14

Average Commuting Time for Workers in Frankenmuth City and Township, 2000 2010

			Travel Time in Minutes						
Community	Total Workers who did not Work at Home	Less than 10 Minutes	10 to 19 Minutes	20 to 29 Minutes	30 to 44 Minutes	45 to 59 Minutes	60 to 89 Minutes	90 or more Minutes	
Frankenmuth	2,046	861	218	394	346	55	25	27	
City	2055	555	444	436	327	82	207	4	
Percent Living in the City		42.1% 27.0%	10.7% 21.6%	19.3% 21.2%	16.9% 15.9%	2.7% 4.0%	1.2% 10.1%	1.3% 0.2%	
Frankenmuth	986	261	367	172	128	21	29	8	
Township	1,036	343	262	206	149	22	54	0	
Percent Living in the Township	-	26.5% 33.1%	37.2% 25.3%	17.4% 19.9%	13.0% 14.4%	2.1% 2.1%	2.9% 5.2%	0.8% 0%	
Total Frankenmuth									
City and	3,032	1,122	585	566	474	76	54	35	
Township	<u>3,091</u>	898	706	642	476	104	261	4	
Percent of Total City and Township Workers	<u> </u>	37.0% 29.1%	19.3% 22.8%	18.7% 20.8%	15.6% 15.4%	2.5% 3.4%	1.8% 8.4%	1.2% 0.0	

Source: US Census, 2000

Table 2-13 2-15 Employment Inside or Outside Saginaw County

	V	Workers 16 Years and Over						
	Total Worked in County of	% Worked Outside County of						
Community	Residence	Residence	Residence	Residence				
	1,664	79.4%	417	19.9%				
Frankenmuth City	1,661	78.4%	444	21.6%				
Frankenmuth	892	86.1%	144	13.9%				
Township	810	78.2%	226	21.8%				

Source: US Census, 2000 American Community Survey

Income

The average income for households in 2000 2010 in Frankenmuth City was 51,153 66,737 and 61,480 78,281 in Frankenmuth Township. This was considerably higher than the Michigan average of 44,667. 64,753 See Table 2-14 2-16 for the percent of households with income at different levels in Frankenmuth and Michigan in 2000. 2010.

The average income growth between 2000 and 2010 was 30.5% (\$51,153 to \$66,737) for city households and 27.3% for households in the township (\$61,480 to \$78,281). On a statewide basis, household income grew 45% (\$44,667 to \$64,753). So even though income growth in the Frankenmuth area was substantial, it did not keep pace with the percentage growth statewide.

Table 2-14 2-16 Income Distribution in Frankenmuth City and Township, 2000–2010

	Percent of Households								
Community	Less than \$10,000	\$10,000 to \$14,999	\$15,000 to \$19,999 \$24,999	\$20,000 to \$24,999	\$25,000 to \$29,999 \$34,999	\$30,000 to \$34,999	\$35,000 to \$39,999 \$49,999	\$40,000 to \$44,999	
Frankenmuth	4. 5%	6.0%	7.3%		7.0%		4.5%		
City	1.2%	2.4%	2.8%	6.6%	4.8%	6.0%	9.3%	3.7%	
Frankenmuth	4.4%	1.3%	2.8%		7.1%		4.4%		
Township	2.2%	0.5%	4.1%	2.4%	3.3%	5.7%	9.6%	7.8%	
	8.3%	5.8%	6.0%		6.2%		5.8%		
Michigan	8.2%	5.2%	11.8%	6.4%	11.2%	6.2%	14.6%	5.7%	

	Percent of Households								
Community	\$4 5,000 t o \$49,999	\$50,000 to \$59,99 \$74,999	\$ 60,000 t o \$74,999	\$75,000 to \$99,999	\$100,000 to \$124,999 \$149,999	\$125,000 to \$149,999	\$150,000 to \$199,999	\$200,000 or more	
Frankenmuth		10.8%		14.8%	7.8%		3.1%	3.9%	
City	2.6%	15.7%	8.9%	26.4%	20.8%	2.4%	11.6%	5.0%	
Frankenmuth		8.9%		17.8%	6.1%		5.2%	2.4%	
Township	2.4%	18.5%	18.8%	25.2%	20.9%	2.8%	6.0%	9.7%	
·		9.3%		11.4%	5.9%		2.1%	2.0%	
Michigan	5.0%	18.4%	11.2%	11.9%	11.4%	2.7%	3.8%	3.1%	

Source: US Census, <u>2000 American Community Survey</u>

There are $\frac{35}{25}$ families with children under 18 years below the poverty level in both Frankenmuth City and the Township in $\frac{2000}{2010}$ or $\frac{4.2\%}{000}$ of $\frac{824}{3.3}$ % of the 758 families with children under 18. (see Table $\frac{2-15}{2}$ - $\frac{2-16}{2}$).

	Families wi und	th related o er 18 years		househol present, rela	es with fem der, no hus ated childre 8 years	sband	
Community	All income levels	Below poverty level	Percent below poverty level	Below be			
Frankenmuth	544	31	5.7%	68	8	11.8%	
City	511	21	4.1%	114	17	14.8	
Frankenmuth	280	4	1.4%	22	4	18.2%	
Township	247	4	1.8%	32	8	23.8%	
City and	824	35	4.2%	32 8 23.8% 90 12 13.3% 146 25 17.1%			
Township Total	758	25	3.3%				

 Table 2-15-2-17

 Poverty Levels in Frankenmuth City and Township, 2000-2010

Source: US Census, 2000 American Community Survey

Existing Real Property Tax Base

<u>2009 2014</u>

A comparison of real property State Equalized Value (SEV) between 2000, 2005 and 2009 for the City of Frankenmuth, Frankenmuth Township and a total of the two shows an increase a decrease for most categories of land (see Table 2-16). Industrial SEV increased in both the city and township. Agricultural SEV disappeared in the City of Frankenmuth, but increased 27.2% in the Township. Commercial SEV increased decreased 4.2% in the city but decreased and 9.9% in the township. Similarly, the city and the township had -5.9% and -0.4% decrease in residential land value. respectively. and had the greatest overall combined percentage increase. Residential SEV decreased from 2005 to 2009.

In 2014 the total SEV for the City and Township was \$370,588,000. This was a decrease in land value of -\$4,897,300 which is a decrease of -1.3% from the value that was assessed in 2009. This obviously has a negative impact on the city and township revenue and the services they provide to the community. However, there are positive development signs that will hopefully improve the capabilities of these two agencies.

In 1990, agricultural land represented 11.7% of the total SEV in the two communities. By 2000 it had fallen to 8.4% of total SEV but stayed relatively the same at 8.5% in 2009. Residential SEV declined from 64.0% of SEV to 58.6% of SEV between 2000 and 2009. Commercial land represented 25.9% of the total SEV in 2000, but rose to 31.5% of total SEV by 2009. Industrial SEV represented 1.7% of the total SEV in 2000, but fell to 1.4% of total SEV in 2009.

Table 2-16Frankenmuth City and Township SEV, 2000, 2005 2009 and 2009 2014Real Property

Agricultural									
					Percent				
				Total	Change 2000-				
				Change	2009				
	2000	2005	2014	2000-2009	2009-				
Frankanmuth	2000	<u>2009</u>	<u>2014</u>	<u>2009-2014</u>	2014 40.9%				
Frankenmuth	¢00.000.400	\$27,074,100	¢ 40 507 000	<u>\$13,453,500</u>					
Township	\$22,600,138	\$31,852,400	<u>\$40,527,600</u>	<u>\$8,675,300</u>	<u>27.2%</u>				
City of					-100.0%				
Frankenmuth	\$222,300	\$0	<u>\$0</u>	<u>\$0</u>	0%				
		\$27,074,100		<u>\$13,453,500</u>	39.6%				
Total	\$22,822,438	\$31,852,400	<u>\$40,527,600</u>	<u>\$8,675,300</u>	<u>27.2%</u>				
Agriculture as % of		7.7%							
Total SEV	8.4%	8.5%	<u>10.9%</u>						

Industrial								
	2000	2005 2009	2014	Total Change 2000-2009 2009-2014	Percent Change 2000- 2009 <u>2009-</u> 2014			
Frankenmuth		\$1,150,200		\$713,000	75.0%			
Township	\$701,060	<u>\$1,226,800</u>	<u>\$1,863,200</u>	-\$636,400	<u>51.9%</u>			
City of		\$4,126,950		\$163,950	6.9%			
Frankenmuth	\$3,826,350	<u>\$4,089,200</u>	<u>\$4,290,900</u>	<u>\$201,700</u>	<u>4.9%</u>			
		\$5,277,150		\$876,950	17.4%			
Total	\$4,527,410	<u>\$5,316,000</u>	<u>\$6,154,100</u>	<u>\$838,100</u>	<u>15.8%</u>			
Industrial as % of		1.5%						
Total SEV	1.7%	<u>1.4%</u>	<u>1.6%</u>					

Commercial								
	2000	2005 2009	2014	Total Change 2000-2009 2009-2014	Percent Change 2000- 2009 <u>2009-</u> 2014			
Frankenmuth		\$1,066,100		-\$10,700	-3.0%			
Township	\$1,207,567	<u>\$1,171,900</u>	<u>\$1,055,400</u>	<u>\$116,500</u>	<u>-9.9%</u>			
City of		\$ 89,303,700		\$22,929,600	69.9%			
Frankenmuth	\$68,932,400	<u>\$117,100.900</u>	<u>\$112,233,300</u>	-\$4,867,600	<u>-4.2%</u>			
		\$90,369,800		<u>\$22,918,900</u>	68.6%			
Total	\$70,139,967	<u>\$118,272,800</u>	<u>\$113,288,700</u>	-\$4,984,100	<u>-4.2%</u>			
Commercial as %		25.6%						
of Total SEV	25.9%	<u>31.5%</u>	<u>30.6%</u>					

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Table 2-16 (Continued) Frankenmuth City and Township SEV, 2000, 2005 and 2009-2014 Real Property

Residential							
				Total Change	Percent Change		
		2005		2000-2009	2000-2009		
	2000	<u>2009</u>	<u>2014</u>	<u>2009-2014</u>	<u>2009-2014</u>		
Frankenmuth		\$71,893,300		-\$6,662,000	31.2%		
Township	\$49,898,788	<u>\$65,488,400</u>	<u>\$65,231,300</u>	<u>-\$257,100</u>	<u>-0.4%</u>		
City of		\$158,915,900		-13,519,600	25.5%		
Frankenmuth	\$123,166,082	<u>\$117,100,900</u>	<u>\$145,396,300</u>	<u>-\$9,159,600</u>	<u>-5.0%</u>		
		\$230,809,200		<u>-20,181,600</u>	27.1%		
Total	\$173,064,870	<u>\$118,272,800</u>	<u>\$210,627,600</u>	<u>-\$9,416,600</u>	-4.3%%		
Residential as % of		65.3%					
Total SEV	64.0%	<u>31.5%</u>	<u>56.8%</u>				

Total Real Property								
				Total Change	Percent Change			
		2005		2000-2009	2000-2009			
	2000	<u>2009</u>	<u>2014</u>	<u>2009-2014</u>	<u>2009-2014</u>			
Frankenmuth		\$101,183,700		\$25,331,847	34.0%			
Township	\$74,407,553	<u>\$99,739,400</u>	<u>\$108,677,500</u>	<u>\$8,938,100</u>	<u>9.0%</u>			
City of		\$252,346,550		\$9,563,950	4 0.6%			
Frankenmuth	\$196,147,132	<u>\$275,745,900</u>	<u>\$261,910,500</u>	<u>-\$13,835,400</u>	<u>-5.0%</u>			
		\$353,530,250		\$104,930,615	38.8%			
Total	\$270,554,685	<u>\$375,485,300</u>	\$370,588,000	<u>-\$4,897,300</u>	<u>-1.3%</u>			

Chapter 3 CURRENT CONDITIONS

INTRODUCTION

This chapter describes conditions as they exist as of the autumn of 2003 or as of the date of the mapping or inventories on which they were based. The discussion looks at both natural and cultural features, the use of the land and the capacity of the land for various purposes.

LAND USE AND LAND COVER

Agriculture is by far the most prevalent land use/cover type in the Frankenmuth community. This is evident from the white area on Map 3-1 and extends up to (and in some cases inside) the city limits. See Map 3-2. These maps were prepared by Saginaw County based on data from 1997, the last year which land use/cover data was gathered.

Land use describes the type of use of the land, such as residential, commercial, industrial and agricultural. Land cover describes the presence or absence of different types of vegetation, woodland, crops, wetlands, etc. There are scattered woodlands throughout Frankenmuth Township. Water features include the Cass River, flowing east to west through the township and city, numerous creeks, drains and wetlands. Woodlands and open water occur most frequently south of the Cass River while the northern part of the township is largely open farmland.

While the township is mostly agricultural, there are many structures along the roads. Note the clusters of little dots on Map 3-1. Each was identified from aerial photographs when the map was made. Most are agricultural buildings with one residence in each cluster.

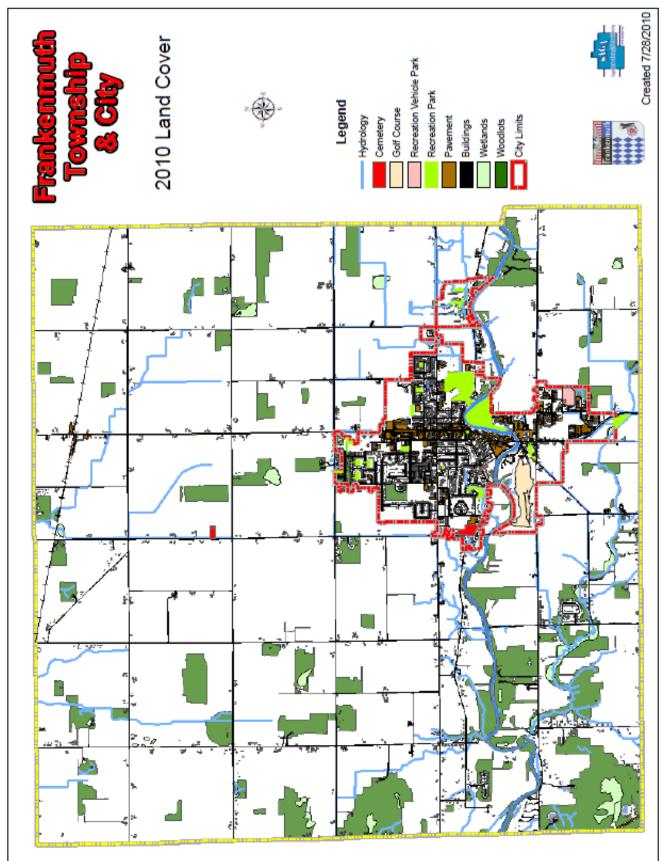
Map 3-2 shows more detail of land cover for Frankenmuth City. Note that there is a category of "pavement." This category identified as black shapes, surrounds commercial structures such as stores, motels and restaurants, and includes parking lots.

In fairly close proximity to the residential and commercial areas of the city are several parks along the east side and northwest side and a golf course on the south side of the Cass River across from the most highly developed part of the city.

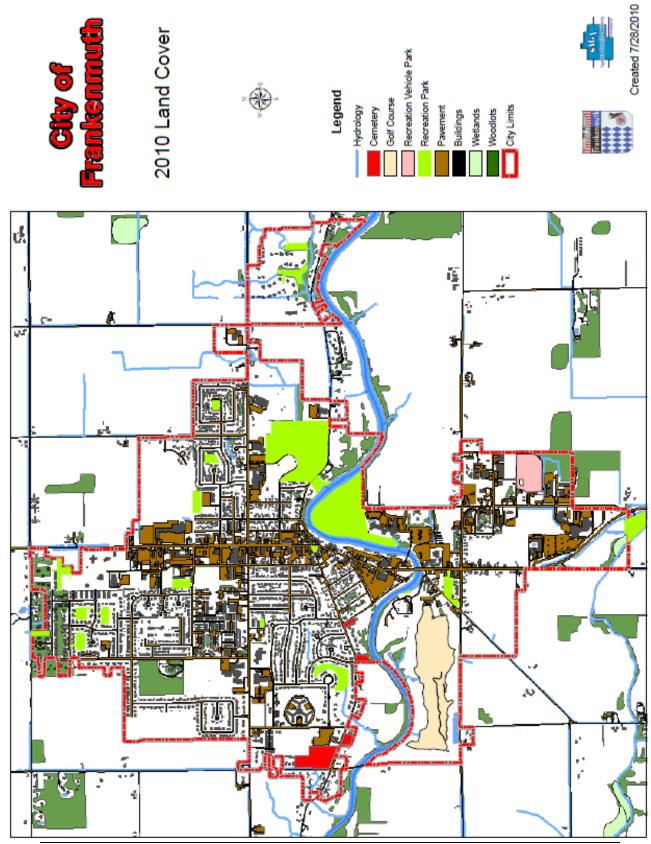
A recreational vehicle park is located in the southeast part of the city with access from Weiss Street.

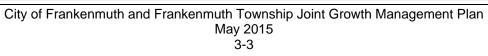
Table 3-1 lists the acreage of land cover types in both the city and township.

Map 3-1 Frankenmuth Land Cover



Map 3-2 Land Cover in Frankenmuth City, 2010 Data





	Township &	Township & City % of	City Only	City Only % of	Township Only	Township Only % of
Use/Cover Class	City (acres)	Total	(acres)	Total	(acres)	Total
Other						
(undeveloped, lawn						
or landscaping),						
Primarily						
Agriculture in						
Township	19,044	83.8%	1,107	61.7%	17,937	85.7%
Buildings	236	1.0%	143	8.0%	93	0.4%
Rivers	160	0.7%	33	1.8%	127	0.6%
Marsh	110	0.5%	9	0.5%	100	0.5%
Pond	24	0.1%	0	0.0%	24	0.1%
Cemetery	13	0.1%	13	0.7%	0	0.0%
Golf Course	52	0.2%	52	2.9%	0	0.0%
Recreation Vehicle						
Park	12	0.1%	12	0.7%	0	0.0%
Recreation Park	38	0.2%	38	2.1%	0	0.0%
Paved Parking	120	0.5%	118	6.6%	2	0.0%
Paved Road	380	1.7%	142	7.9%	238	1.1%
Unpaved Road	11	0.0%	4	0.2%	7	0.0%
Unpaved Parking	12	0.1%	7	0.4%	5	0.0%
Woodlots	2,500	11.0%	115	6.4%	2,386	11.4%
Total	22,712		1,793		20,919	

Table 3-1 Frankenmuth Land Cover in Acres, 1997

Source: Saginaw County GIS Note: Total acreage is different than for tax class information due to different data sources. Due to rounding, some columns may not total 100%.

Photo 3-1
Frankenmuth Community has Many Different Land Uses



LAND USE BY TAX CLASS

Table 3-2 shows that the predominate tax classes in the Frankenmuth community are agriculture, with 10,255 acres, or 46% of all land in the township and city and residential, with 10,236 acres, or 45.9%. While the table shows that all of the agricultural land is in the township and none is in the city, there remains some land in agricultural use in the city. The third largest tax class by area is commercial, with 671 acres, or 3%. There are almost as many acres in the industrial tax class (603 acres or 2.7%) as commercial acres. Exempt (403 acres) and Developmental (149 acres) tax classified lands are all under 2% of total land area of the township and city.

Map 3-3 shows land use by tax class in both the township and city with Map 3-4 showing an enlargement of the city area. The purple lines on Map 3-3 are utility corridors.

Land Use by Tax Class 2003								
Tax Class	FrankenmuthFrankenmuthCity (acres)(acres)		Total (acres)	% of Total				
Agricultural	0	10,255	10,255	46.0%				
Commercial	499	172	671	3.0%				
Developmental	149	0	149	0.7%				
Exempt	339	64	403	1.8%				
Industrial	36	567	603	2.7%				
Residential	640	9,596	10,236	45.9%				
Total	1,663	20,654	22,317	100.1%				

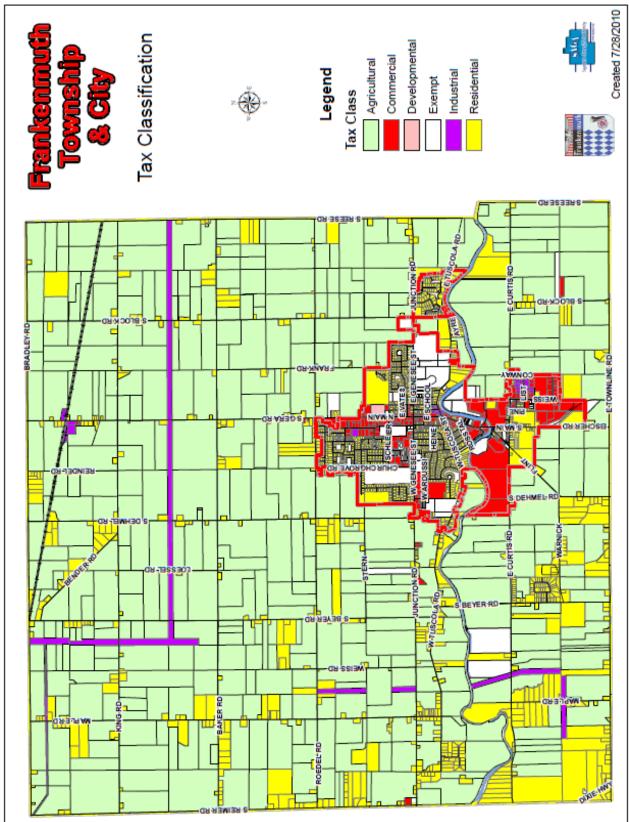
Table 3-2 and Use by Tax Class 2003

Source: Saginaw County, 2003

FARMLAND

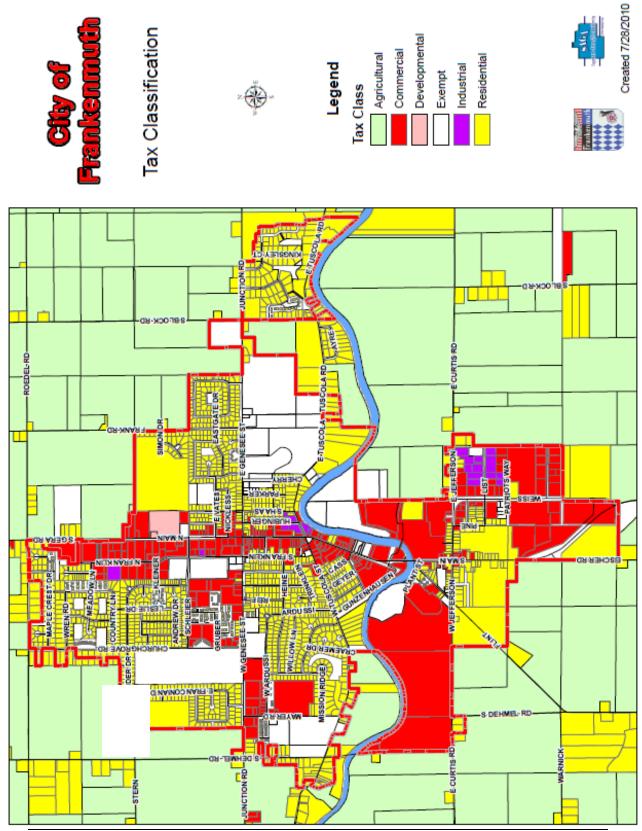
Map 3-3 shows the large parcel size of farms in Frankenmuth Township and Map 3-5 shows farms enrolled in the PA 116 state farmland protection program. There were 9,723.79 acres enrolled in PA 116 in 2004. This is 46% of the land in the township. Parcel size can be an indicator of whether agriculture activities will likely remain active into the future or if they are already divided for future development. The large parcels of farms in the township combined with excellent soils and high enrollment in PA 116 show strong suitability for long term agriculture and a high commitment to long term farming.

Map 3-3 Frankenmuth Township Parcels by Tax Class, 2010



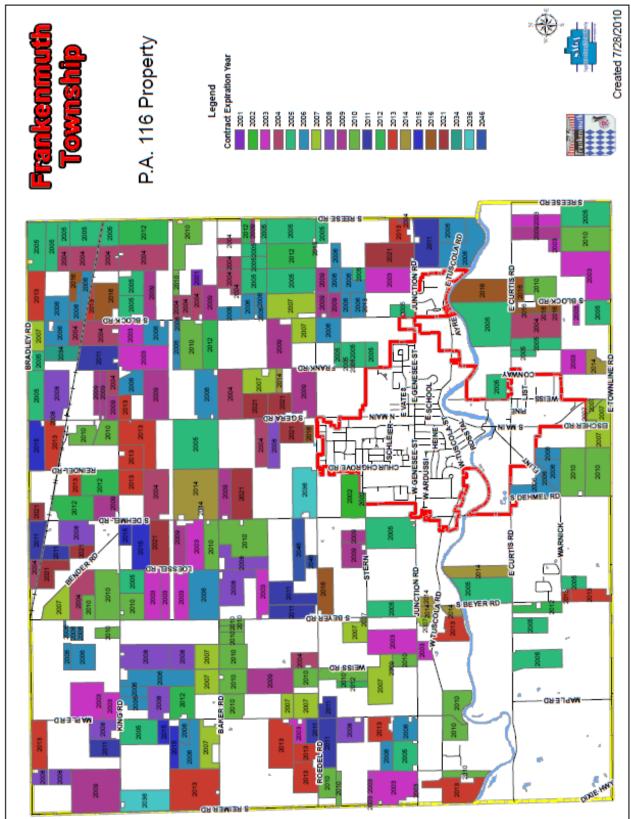
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Map 3-4 Land Use by Tax Class City of Frankenmuth, 2010



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Map 3-5 Farms Enrolled in PA 116 Agriculture Protection Program





WOODLOTS, WETLANDS, WATER BODIES AND OTHER SENSITIVE NATURAL FEATURES

The presence of natural features is important to the quality of life of a community. Their "naturalness" is at the same time visually soothing and compelling. Natural features that people like to have in their communities include woods, open fields, wetlands, rivers and other water features.

Generally, such natural features are considered sensitive, in that their natural functions can be seriously impaired by disturbance. Other sensitive features include steep slopes and riverbanks and rare or endangered plant and animal habitats.

It is desirable to have natural features linked throughout a community. This serves to both increase access to naturalness in the daily lives of residents and it helps plants and animals thrive because they need "ecological corridors" as habitat rather than isolated habitats.

Frankenmuth generally has isolated habitats of woodlands and wetlands. See Map 3-1. The Cass River and various creeks and drains form corridors, but off the main stream these rarely include wooded banks. To some extent, farmland can provide the ecological corridor connection animals require but not as effectively as a wooded or mixed vegetation corridor.

SOILS

The soils in Frankenmuth Township north of the Cass River are generally very productive for agriculture, but not very conducive for buildings. Most are poorly drained loams, fertile, but too poorly drained for septic fields and unstable for building footings and basements. The result of building in such soils can be either contamination due to septic failures, replacement of septic fields at frequent intervals or a requirement to use more expensive waste treatment approaches such as mound septic systems of public sewers. In such soils, building lots need to be larger than usual in order to reserve room for replacement septic systems and to adequately separate septic systems from wells if public sewer is not available. Basements and footings need to be engineered to compensate for slow water permeability and greater than usual cracking is to be expected. Construction in the city on public sewers and with city storm drains is a more suitable location for development of any density greater than one dwelling unit per 2-3 acres.

TOPOGRAPHY

With the exception of the banks of the Cass River, Frankenmuth is generally flat. This means that drainage of storm water requires greater attention and drains may be deeper than in other areas. Landmarks, such as the St. Lorenz Church and the Star of the West grain elevators are visible from a long distance. Future construction of anything above two stories will also be highly visible from many points in the community.

FLOODPLAINS

A fairly narrow band along the Cass River is subject to flooding. Map 3-6 indicates the area subject to 100 year floods. These are floods that have a 1% chance of occurring in any year.

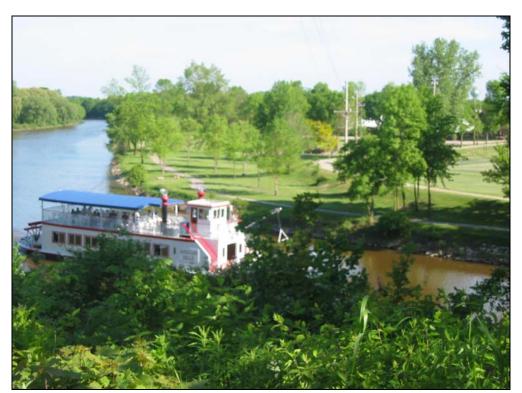
While that area of the community subject to flooding is small, a portion of this area is in the City of Frankenmuth. Downtown Frankenmuth suffered frequent flooding until a dike was built by the US Army Corps of Engineers in 1965 that limited the occurrence of flooding.

In spite of flood prevention efforts it is still important that the floodplain not be developed for uses other than those that can accommodate periodic flooding, such as parks and ball fields.

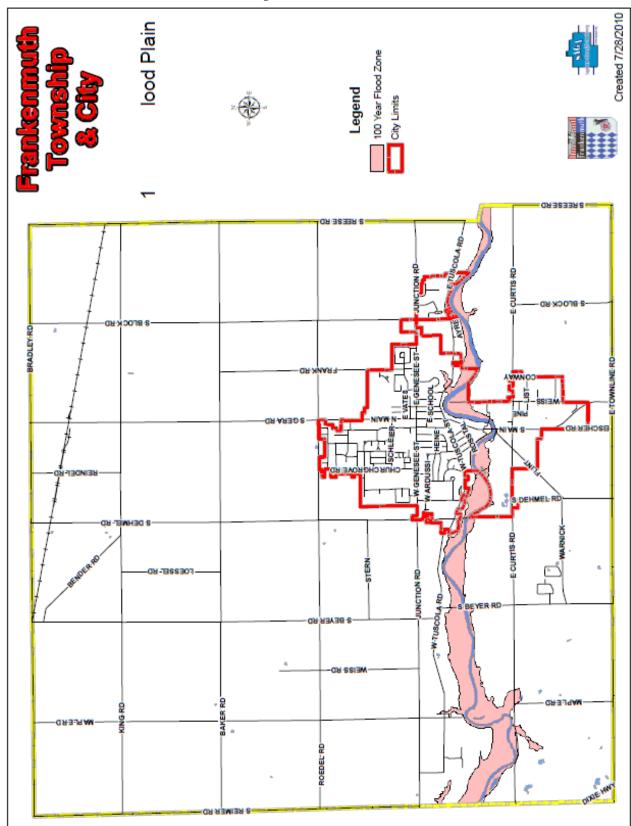
Map 3-6 shows three flood zones. These are:

- A An area inundated by 100 year flooding for which no base flood elevation has been determined.
- AE An area inundated by 100 year flooding for which base flood elevations have been determined.
- X500 An area inundated by 500 year flooding; an area inundated by 100 year flooding with average depths of less than 1 foot or drainage areas of less than one square mile; or an area protected by levees from 100 year flooding.

Photo 3-2 Cass River Floodplain



Map 3-6 Floodplain in Frankenmuth





HISTORIC RESOURCES

Frankenmuth is blessed with many historic places that contribute to the charm of the community and reinforce the heritage and traditions of citizens. Among the important historic places are those on the State Historic Registry which are listed on Table 3-3.

Saint Lorenz Lutheran Church	Present church constructed in 1880
Frankenmuth Woolen Mills	Established 1894
Union House Hotel, now the Bavarian Inn	Established in 1888
Restaurant	
Arbeiter Hall/Fischer's Opera House	Established 1894
Germans in Michigan Informational	Settlement of Frankenmuth by German
Designation	Missionaries in 1845

Table 3-3 Historic Places

Source: Michigan's Historic Sites Online

Within Frankenmuth City is an established historic preservation district. See Map 3-7. A five person Historic Preservation District Commission serves to review issues within the District.



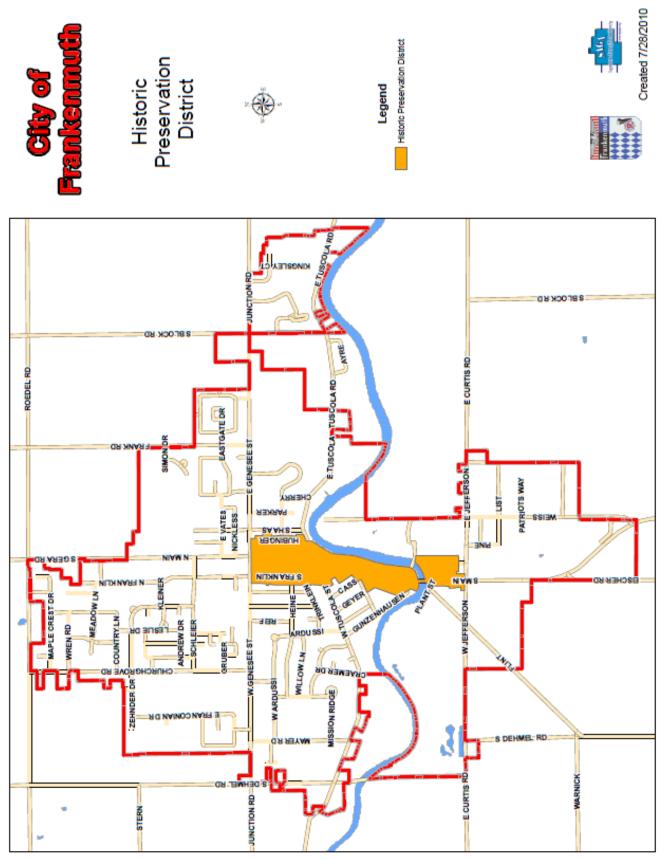
Photo 3-3 Frankenmuth Has Many Historic Places

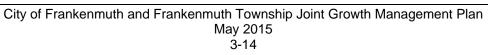
Frankenmuth Township is home to many Centennial Farms, which are farms that have remained in the same family's ownership for at least one-hundred years at the time of application for Centennial Farm designation. It is a reflection of community pride and work ethic that so many farms have remained in single family ownership for so long. See Table 3-4.

First Owner	Date Purchased	Township Section No.
Johann L. Grillenberger	July 1, 1854	15
John George Bierlein	June 22, 1847	20
Johann Frank	March 7, 1873	14
Johannes Keinath, Sr.	December 17, 1868	13
Frederick Bender	July 1, 1852	5
John Leonard Bernthal	April 15, 1867	24
John Simon Daenzer	June 27, 1872	7
John M. Geyer	February 20, 1877	14
Paulus Lorenz Grueber	December 31, 1866	17
Ursula Barbara Campau	February 1, 1857	19
Johann Leonard Hecht	August 1, 1853	14 & 23
John W. and Maria S. Kern	July 1, 1855	23
Friedrich Meyer	July 1, 1857	26
John Jacob Nuechterlein	November 21, 1872	18 & 7
Johann Frederick Rodammer	July 1, 1866	18
Johann Michael Geyer	July 1, 1862	11
Joseph Uebler	July 1, 1854	9
George Caspar Weiss	May 1, 1869	7
John Adam Weiss, Sr.	July 1, 1854	26 & 27
Leonhard Ortner	July 1, 1853	10
Johannes Ziegler	May 1, 1867	25
John Leonhard Roedel	July 1, 1866	not available
George Leonhard Bickel	January 15, 1856	15
John Matthias Leidel	February 2, 1878	12
Paulus L. Grueber	June 23, 1865	7
Fred Bender	April 2, 1873	6
August F. Block	January 17, 1890	28
John Paulus Haas	May 14, 1873	28
Johannes Schluckebier	January 15, 1861	11
Johann Michael Geyer	January 15, 1856	10
Johann George Hegenauer	June 25, 1877	2
Johann L. Weiss	August 1, 1853	20
John Jacob Bickel	December 19, 1856	16
John Keinath	March 21, 1894	20

Table 3-4 Centennial Farms

Map 3-7 Frankenmuth Historic Preservation District





ECONOMIC DEVELOPMENT

The City of Frankenmuth has two economic development groups focused on business retention and attraction within the City.

Frankenmuth Downtown Development Authority

In order to foster economic development in downtown Frankenmuth, a Downtown Development Authority (DDA) was created in 1983 under authority of PA 197 of 1975. The purpose of the DDA is to promote business growth in the city. One way it does so, is by making improvements to the street and streetscape. It is financed by a 1 mill tax, captured taxes, and special assessments. Its budget in 2010 was about \$1.2 million. See Map 3-8. The City of Frankenmuth established the DDA to promote economic growth. The District is shown in Map 3-8 below.

The DDA is financed by a 1 mill tax, captured taxes enabled through a Tax Increment Finance Plan (TIF) and special assessments. Working with budgeted revenue of approximately \$1.25 million, the DDA commits a large portion of its revenue to debt-service payments for projects previously completed, for maintenance on its streetscape investments and for the operation of an office including the employment of a staff person who serves as business contact, grant writer and ombudsman.

The Development and Tax Increment Finance Plan (TIF) for the City of Frankenmuth was adopted in 1991 and amended in 1996 and 2014. The Downtown Development Authority administers the TIF fund. Its purpose is to provide funding for public improvements identified in the Frankenmuth Hospitality Plan and for other public improvements allowable by state law. Administered by the DDA, the TIF Plan guides public investment for identified improvements and approved by the City of Frankenmuth.

Frankenmuth Hospitality Plan

The original Frankenmuth Hospitality Plan was developed in 1996. Hospitality Plan elements include:

- Streetscaping substantially completed from the north city limits to Jefferson Street on Main Street.
- Improved signs, completion of amenities and tweaking of elements along this section remain.
- Streetscaping on Weiss Street from the intersection at M-83 to Heritage Park is complete.
- Using the Hospitality Plan projects as matching funds, with the cooperation of the Frankenmuth Bavarian Inn and Zehnder's Restaurant, and pledging DDA/TIF revenues for any shortfalls in the project, the City of Frankenmuth was granted funds for the completion of two plätze as part of the streetscaping plan.

Other Public Improvements

Through TIF funding, the DDA worked in conjunction with the City of Frankenmuth to build a new storm sewer on Main Street. The DDA is in consideration of other public projects, using TIF revenues for project costs, additional bonding if appropriate and possible new granting opportunities. Possible projects include:

- Riverbank improvements west of the Main Street bridge, linking the new riverwalk east of the bridge with Eddie Zehnder Park and Gunzenhausen Street;
- Possible involvement with the city on improved river recreational opportunities associated with the Cass River and its dam.
- Pending riverfront activities, the DDA will evaluate long-term development of recreational opportunities of Eddie Zehnder Park as defined by a jointly funded master plan of the area.
- Participation in a marketing plan inviting guests to "see the new Frankenmuth."

In 1996, the City of Frankenmuth adopted the Frankenmuth Hospitality Plan, a development strategy for both public and private sectors to insure the continuing health and strength of Tourism, the economic base industry of Frankenmuth. In the first fifteen years of the TIF plan, the DDA focused on building the backbone of the Hospitality Plan focusing on streetscape investments, enabling linkages

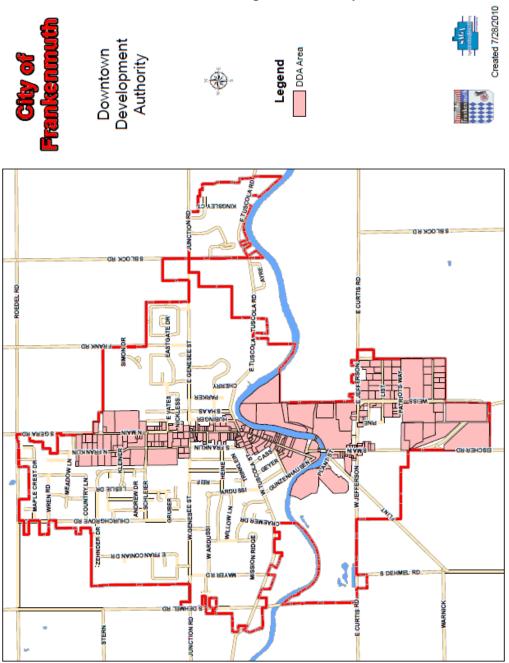
between major destinations and improving the quality of the tourist experience. Achievements through public investment in streetscape improvements have enabled the base industry (tourism) to maintain its business base, continuing contributions (tax base, employment, and quality of life) to the local community.

A unique benefit of the tourism industry is the addition of quality investments, which not only attract the tourist, but are a benefit to the local community and its tax base. This consideration is illustrative of the concept of "place-making" or "sense of place" which considers cultural and natural amenities, resources and social and professional networks as integral parts of community development. DDA projects that have been completed to date, along with those proposed for the coming years focus on creating and maintaining that "sense of place" through continued private and public investment and through comprehensive management.

In addition to major streetscape investments, the DDA has funded necessary infrastructure critical to sustaining growth in the district. Improvements include new storm sewer and new sanitary sewer distribution lines within the district. This critical public funding facilitated major new tourism investments, benefiting the district and City at large.

The DDA, working collaboratively with the City, is funding the Fish Passage Project at the Cass River Dam, stabilizing the dam and south shore of the Cass River while building a new eco-tourism destination, diversifying the tourism product. Future investments by the DDA may include completion of the streetscaping project at Eddie Zehnder Park, construction of the levee modification project to remove the heart of the district from the flood plain, construction of additional riverwalk and other river-focused activities, biking and pedestrian improvements as part of a Complete Streets initiative in the City, and other infrastructure improvements targeted to achieving the goals of the DDA to stop deterioration and encourage growth.

Map 3-8 Frankenmuth Downtown Development Authority (DDA) District



The Economic Development Corporation

The Frankenmuth Economic Development Corporation (EDC) was organized by the City in 1999 to identify the means of enhancing and expanding the Frankenmuth economic base through diversification, new investment and jobs retention and development. The role of the EDC is to remove barriers to development, facilitating a business-friendly environment on the government and community scene. Working in partnership with the efforts of other organizations including the DDA, the EDC seeks to diversify the economy through new investment and jobs development.

During a strategic planning session in 2014, the EDC shared their vision for the greater Frankenmuth community. Their document is titled "Work Strategy & Playbook: May 2014-December 2015". The EDC sees the Frankenmuth economy as diverse, featuring a variety of industries including tourism. Focus areas include an expanding residential base attracting, growing and sustaining the business network of local service providers, requiring traditional and non-traditional work environments, and actively using evolving technology. The primary assets of the community are value added benefits to investors including easy access to excellent education opportunities, a safe and clean environment, modern technology and many recreational options. Because business investors seek it, the EDC supports community access to secondary education and environmentally-friendly recreational and cultural experiences. The EDC recognizes the need for varying housing alternatives to attract not only employers, but employees who will live in Frankenmuth.

The EDC is funded from revenues through the City General Fund and grants. The EDC shares its executive staff with the City through the Manager and with the DDA through the Director. Appointed by the City Council, members include two representatives of the City Council and the Township Supervisor.

In 2002, the EDC identified property on North Main for purchase by the City to build the Frankenmuth Business Park. In 2013, with the interest of Kremin Inc, an advanced manufacturer, the City attracted Community Development Block Grant (CDBG) and Michigan Department of Transportation (MDOT) funding to build necessary infrastructure to support the new development. The new street, named Keystone Way, is the gateway to additional building sites in the northeast corridor of the City.

Chapter 4 SIGNIFICANT ISSUES

INTRODUCTION

Input into the Joint Growth Management Plan update was received via a survey of local leaders conducted in the summer of 2003, two Town Meetings held in October of 2003, an all-day public participation meeting in January 2004, a Town Meeting June 16, 2004 and about a dozen joint meetings of both planning commissions and governing bodies in between these other public forums. This chapter discusses issues that are important to the community based on this input.

ECONOMY

The local economy is a top concern of citizens and local leaders in both the city and township. Citizens would like to: diversify from a primarily tourist economic base; expand tourism businesses; develop good paying jobs so that fewer young people would leave the community; and some want more land designated for commercial development.

Anxiety over the Frankenmuth economy may have been strong in the fall of 2003 and throughout 2004 because of general problems with the state and national economy. There has been gloomy economic press, an uncertain stock market, projections of a huge budget shortfall at the state level and a rapidly increasing federal deficit. However, unemployment was far lower in Frankenmuth than elsewhere in the region and state and real property value continued to increase.

Nevertheless, while the economic report for Frankenmuth appeared to be far better than for other communities in the region, business persons remain concerned. They report fewer tourist visits than in the past. This is also a national trend, due in part to the economy and in part to fears about travel ever since the tragedy of 9/11.

In order to respond to community concerns about the economy, there are several actions the Frankenmuth community can take. These include:

- Continuing to search for ways to diversify the Frankenmuth economy in general and the tourism sector in particular. Industrial growth is waning and needs to be pumped up with more recruitment to the existing industrial park.
- Developing additional tourism draws that are in character with the community but that enrich the mix of businesses and activities available to tourists.
- Keeping local government spending and future spending responsibilities consistent with income by developing public/private partnerships to accomplish public goals and by not overextending public services.
- Making sure there are activities for youth and young adults so they will want to remain in Frankenmuth and serve in the local workforce.
- Maintaining and enhancing the high standards of the community, its clean and distinctive appearance and quality of life to attract and retain businesses.
- In addition, as part of this Plan update, the boundaries of the urban limit line were examined to see if there are ways it could be adjusted to better meet economic development and farmland preservation goals. The results of this analysis are presented in Chapter 9.

In consideration of the above concerns, since the 2010 plan, the Community has developed a 15 acre business park and a manufacturing facility has been established. A new street, Keystone Way, was developed as part of this project to better access the site. Zehnder's Splash Village has expanded their existing indoor waterpark facility in 2014, making it one of the largest indoor waterparks in Michigan. Bavarian Inn Lodge also added two waterpark rides to their facility. A 68 room, four story motel was also constructed on S. Main Street. In 2013, the Adventure Park of Frankenmuth opened allowing recreational entertainment opportunities for residents and visitors alike.

A grant was awarded to the City by the Michigan Economic Development Corporation for added infrastructure for the Frankenmuth business park and to improve sanitary sewer service for the Splash Village expansion. These sewer improvements also created added capacity for future development in the south end of the City where capacity had reached its limits.

An MDNR Trust Fund Grant was awarded to the City to purchase a 36 acre parcel to be used as an outdoor sports complex. The Frankenmuth Youth Sports Association will continue to fundraise and plan the development of this parcel in the coming years.

Finally, a new mixed use development of 26 acres southwest of the Main and Jefferson Streets intersection has also been developed since 2010 called Covenant Commons. Two new streets, Covenant Drive and Grauer Drive were added to better access this site.

LAND USE PLANNING AND ZONING OF THE COMMUNITY

Issues surrounding land use planning and zoning are another frequently cited concern of the public. People want new development and growth, but they want manageable or planned growth. There seems to be a nearly universal desire to retain agricultural land, open space and what locals call the "Greenbelt" in Frankenmuth Township surrounding the City of Frankenmuth. However, there are also voices calling for balancing agricultural preservation with moderate expansion of the urban limit line to increase commercial and residential activity. The "Greenbelt" is essentially defined by the urban limit line and whether to change that boundary was the primary planning issue in Frankenmuth as a part of this joint Plan update.

The Frankenmuth community has been very successful in maintaining the "Greenbelt" for over 25 years. Building permit records for the past several years show that the township limit of four new residences per year in the A-1 District and six new residences per year in the A-2 District is helping to keep the agricultural areas agricultural. See Table 4-1. Of the 818 new households in the city and township between 1980 and 2000, the vast majority, 800, were developed in the city or annexed into the city. See Table 2-3 in Chapter 2. Frankenmuth citizens and officials should be aware that many communities in Michigan have wanted to maintain a greenbelt around their communities, but nearly all except Frankenmuth have failed or have only partially succeeded.

Residential Building Permits for New Residences								
Community	Community 2005 2006 2007 2008 2009							
Frankenmuth Township	8	4	4	0	3			
City of Frankenmuth	20	13	10	7	1			
Total	28	17	14	7	4			

Table 4-1 Frankenmuth Residential Building Permits, New Residences, 2005-20092014

Residential Building Permits for New Residences							
Community 2010 2011 2012 2013 2014							
Frankenmuth Township	0	3	1	5	1		
City of Frankenmuth	2	5	4	9	5		
Total	2	8	5	14	6		

Source: Frankenmuth City and Frankenmuth Township

INFRASTRUCTURE

Citizens and local leaders have a considerable interest in improving infrastructure to meet existing and future needs. Citizens are concerned about ensuring pedestrian access via sidewalks and trails throughout the community and about sidewalks close to traffic on Main Street. Separate pedestrian and bicycle access across the Cass River is also a significant concern. Truck traffic is viewed as a problem, especially on Main Street, as is traffic in general. However, several studies by MDOT show the overwhelming bulk of truck traffic has a local destination. The solution to traffic congestion for some is construction of a bypass on both the east and west sides of the city. A lack of public parking downtown during peak periods is also identified by some as a problem needing attention, but parking studies do not bear that out except in festival peaks. People are polarized about additional bridges across the Cass River; with some wanting an additional bridge on the east side some are opposed.

Major infrastructure improvements are expensive, especially for a small community. However, because Frankenmuth is still fairly compact, infrastructure construction and repairs are less costly, so upkeep and improvements within the city should be easier to accomplish here than elsewhere. If Frankenmuth had developed in more of a sprawling development pattern, it would likely be struggling to repair more deteriorated existing roads, sidewalks, sewers and water mains rather than thinking about new bridges, recreational trails and other transportation improvements.

Chapter 7 identifies the main infrastructure improvements that appear to be most needed. They include an additional pedestrian bridge over the Cass River, a riverfront trail, other trails to connect the community, safety improvements to existing roads and, eventually, a bridge across the Cass River at Block Road.

COMMUNITY VALUES AND HERITAGE

Strong community values are very important to Frankenmuth citizens and they are more aware of these strengths than other communities. Citizens also sense the threats to those values from many different influences. Volunteerism, religiousness, German heritage and a friendly community were cited as characteristics of Frankenmuth that make people proud and something that they want to preserve.

While maintaining values has generally been thought to be the responsibility of individuals and families, there are things communities can do to help. These include:

- Maintaining adequate public safety services
- Designing public buildings and places to be worthy of respect
- Locating public buildings in logical, prominent places that are easy to access
- Setting aside land for new institutional buildings (schools, libraries, museums, churches, government) close to the center of town and in close proximity to each other

- Maintaining adequate infrastructure
- Fostering a strong economy
- Maintaining a permanent agricultural greenbelt around the city.

In addition, public officials can continue to publicly support and take part in traditional and heritage activities, direct available resources toward maintenance and beautification, and promote public/private partnerships that foster traditions and heritage events.

RECREATION

Public input indicates that all recreation needs are not being met. The most frequently cited unmet needs are a community center, sports facilities for youth and non-motorized trails/paths. A community recreation center with an indoor pool facilities and programs for seniors, and indoor and outdoor sports facilities would meet most of the needs of the community. Residents also feel that the Cass River is not fully utilized for recreation and that access for fishing and boating should be improved. Citizens see a connection between walking and biking and health and want more paths and trails, both along the river and connected to neighborhoods and parks. These ideas are discussed in more detail in Chapter 7 of this document as well as <u>in</u> the 2008 Frankenmuth Area Recreation Plan.

COMMUNITY APPEARANCE AND BEAUTIFICATION

The appearance of Frankenmuth is very highly regarded by citizens and they appear to understand how fragile this characteristic can be. Appearance characteristics include cleanliness, beautification and landscaping. Downtown commercial and public areas and private residential neighborhoods are described in glowing terms. This is fairly rare for communities. It will be important that this Plan and the city's Capital Improvements Program include elements to perpetuate the quality appearance of the community.

Community values are an important reason people keep public and private properties clean and beautify them with decorations and landscaping. Continued public and private investment in cleaning and civic beautification will be needed, especially in periods when city budgets are tight or reduced.

It will be important to keep paying attention to landscaping, lighting, signs and architecture as site plans are reviewed for new development or redevelopment. New owners of existing buildings should be educated by community leaders about the visual and heritage standards of the community.

INTERGOVERNMENTAL COOPERATION

The City of Frankenmuth and Frankenmuth Township have a long history of intergovernmental cooperation and an excellent working relationship. Examples of that cooperation include the following:

(1) An agreement in 1959 between the two entities established the Frankenmuth City-Township Commission consisting of two City Council members and two Township Board members. The commission establishes the budgets and oversees the operations of the Fire Department and the Township Cemetery.

(2) The City of Frankenmuth provides police protection service to Frankenmuth Township based on a written agreement.

(3) In 2004 the City of Frankenmuth, Frankenmuth Township and Blumfield Township created a construction code authority. The authority's staff conducts plan review and building, electrical, plumbing and mechanical inspections for all three units of government.

(4) In 2006 the police department moved into the former Township office and Township Hall. The remaining portion of the rental hall area was converted into a joint police and fire training room. The Township office was relocated to the second floor of City Hall. City Hall was renamed City & Township Government Center.

Cooperation between the city and township governments is mentioned by citizens as both a "proud" and a "sorry" needing improvement. While there was some voice to combining the two governments, the suggestion has also been made for the City of Frankenmuth and Frankenmuth Township governments to cooperate more with each other and surrounding jurisdictions.

The two governments appear to be meeting the needs of their different populations. Frankenmuth Township is responsibly working to keep agriculture viable and to provide a rural residential alternative at a growth rate that does not threaten the agricultural economic sector or overburden township government. There is land available for commercial and denser residential development within the urban limit line. Potential developers may be frustrated by the slow rate at which landowners within the boundary are selling land, but at the same time, the capacity of the city to provide services is not being exceeded and more than 2/3 of the original land inside the urban limit line remains undeveloped.

EXPANSION OF CULTURAL AND TOURISM FACILITIES

Cultural attractions, such as theater, museums and the arts are viewed as important to the citizens and expansion of cultural facilities and programs are seen as important to both the quality of life of residents and as features that could help the economy. People in the Frankenmuth community are proud of the festivals, but think better facilities and an expansion of the arts should be developed and that the cadre of volunteers who put them on should be expanded so the same people do not always have to do all the work. In 2006 the Harvey Kern Community Pavilion was constructed in Heritage Park. This new facility is utilized for most of the festivals in Frankenmuth.

HEALTH AND SAFETY

Health and security issues are fairly high on people's minds. Generally, citizens think fire, police and medical services are very good in Frankenmuth, but that having a major medical facility right in Frankenmuth would be better. There was also concern expressed for the long-term care capacity for the large and growing elderly sector of the population. About one in six persons in the community have disabilities to some extent, so a variety of care situations will need to be addressed. Both major and minor health care facilities need to be located close to population areas.

ENVIRONMENT AND NATURAL RESOURCES

While there was a persistent voice among the public that the environment be protected in the future, people were neither "proud" nor "sorry" about the existing environment and natural features of Frankenmuth compared to other issues. Concern about the environment centered on the Cass River, with hopes it could become cleaner in the future and that recreational and developmental use could improve.

The Saginaw Bay is a federally designated as an "Area of Concern" because degraded water quality conditions have impaired a number of beneficial uses. It is up to the City and the Township and all other jurisdictions within the 22 counties that are a part of the Saginaw Bay Watershed, to protect its water courses from non-point source pollution and hence help reduce sediment and soil erosion from further contaminating the Bay.

It will likely take continuing efforts of a watershed management group such as the Saginaw Bay Watershed Initiative Network in conjunction with the city, township and other interest groups to monitor the health of the Cass River and its tributaries, to recommend approaches to protect water quality and to oversee implementation of those recommendations.

LOW IMPACT DEVELOPMENT

One of the most cost-effective ways to accommodate new development and redevelopment projects with the least impact on the environment is by means of Low Impact Development approaches. Low Impact Development (LID) is a set of approaches to storm water management that are designed more like how nature handles storm water than highly engineered and constructed systems. LID approaches tend to be much less expensive for developers and public agencies, do more to purify storm water, protect groundwater and surface sources of water for domestic use, reduce the temperature of storm water to protect fisheries, and contribute to a natural or rural scenic quality than hard storm water systems.

LID approaches include the reduction of hard or impervious surfaces, the use of vegetation to filter runoff from developed or cleared areas, natural swales to convey and filter storm water and simultaneously allow it to soak into the ground.

See Appendix A -- Cass River Greenway Plan

See new Appendix A for the 2015 Joint Growth Management Plan Update

Chapter 5 FRANKENMUTH VISION, GOALS, OBJECTIVES & POLICIES

INTRODUCTION

This Chapter contains a vision, goals, objectives and policies to guide future land use and infrastructure decisions. These are based on the 1985 Plan, entitled the <u>Future of the Frankenmuth Community</u>, as well as a survey of local leaders conducted in 2003, input from two visioning Town Meetings in October 2003, a day long public participation meeting in January 2004, a Town Meeting in June 2004, and input from members of both Planning Commissions and governing bodies.

VISION

Introduction

Following is a vision statement that describes Frankenmuth City and Township as residents in 2004 want it to be in the year 2024. The vision is organized into topic areas that separately focus on key elements of the community and the process of planning for and managing its future. What emerges when all sections are read together is a complete image of Frankenmuth as residents would like it to be in 2024 and beyond. Following the vision statement are goals, objectives and strategies to chart a path for achieving the vision. These provide direction for future decisions, both short and long term, to achieve the vision and goals.

When reading this vision (all in italics), it is necessary to mentally "transport" yourself into the future. Thus, there are references "back" to the early 2000's. This approach is intended to give the reader a clearer sense of the desired future.

Proactive Planning and Sustainability

Frankenmuth has moved into the third decade of the 21st century as one of the most desirable places to live and work within Michigan. Residents and businesses in Frankenmuth enjoy a quality of life that is a blend of strong values, economic success and care of the physical environment of the community. Residents are reaping the benefits of planning and commitments made years ago. The alluring characteristics of an agricultural landscape and a small, compact Bavarian style city that have long attracted residents to Frankenmuth have not only been maintained over time, but enhanced. Beginning in 2004, proactive initiatives began which went well beyond common practice of the day in order to retain and attract people and business to the Frankenmuth community. The results of this hard work are obvious to visitors and residents alike.

Frankenmuth has become a true reflection of sustainability: an important planning concept that emerged in the 1990's. Sustainability means meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Businesses, neighborhoods, parks, schools, local government and natural resources are healthy and self-sustaining in 2024. Reaching sustainability required the community to look beyond short-term gains in order to plan for a good life for their children and grandchildren.

Quality of Life: Impressions, Standards and Visual Character

When asked about Frankenmuth, residents use descriptive terms like "good paying jobs," "great schools," "clean city," "safe," "productive farms," "Bavarian character," "nice landscaping," "greenbelt," and "attractive neighborhoods". Frankenmuth has a quaint beauty and an immaculate appearance. The schools provide excellent educational opportunities for all ages. Students continue to score among the highest in the state on achievement tests. The population is computer literate and uses the best available high-speed telecommunications. Most of these were characteristics in 2004 and the traditions are alive in 2024.

The most common landscape view in Frankenmuth Township continues to be farm fields, meadows and woods. This is because settlement occurs in a compact pattern close to the city. Few, new non-farm residences have been constructed.

The rural landscape does more than simply provide scenery, although the benefits of nature to residents' mental well-being and the attraction for tourists are important. Farming and agri-business continue as a viable economic sector. Woods and fields help with water infiltration, maintaining biological diversity and provide habitat for wildlife. Property owners have coordinated the retention of natural area connections to create ecological corridors, enhance recreation and provide a more continuous natural scenic view. The Cass River and tributary creeks and drains have buffer plantings that help protect water quality and keep the shoreline green.

A public, well-versed in land and water protection approaches, has been deeply involved in supporting preservation. Working with conservancies and State and National Purchase of Development Rights Programs, key parcels have been preserved through development rights purchases, transfers of development rights, donations and other approaches over the past two decades. As a result, important farmland, green spaces, wetlands and woods that comprise the scenic character and ecosystem of Frankenmuth Township will be permanently protected. These efforts are jointly directed by the township and the city working together to implement a farmland and sensitive area preservation plan.

New developments have been designed to complement and expand the existing transportation system to more safely and efficiently serve the needs of pedestrians, cyclists, truck and automobile drivers. The City of Frankenmuth is known as a walkable community, providing safe connections, separate from roads when practical, between residential areas and the many types of destinations within the community: shops, businesses, public buildings, churches, schools, community center, parks and restaurants. As a result of connections between sidewalks and new trails at the edge of town and along the river, the more physically active Frankenmuth residents have enjoyed a greater level of health than was common in 2004.

New residential development in the township continues to be limited as most of the agricultural land in the township remains in active production, reinforcing the visual character. (The visual character of a community is set by the arrangement, style, size and upkeep of its homes, businesses and civic places such as parks, plazas, schools and government buildings. It is also set by the presence or absence of water and vegetation, hills, roads and the view from its roads.) In the City of Frankenmuth, large-scale changes to the landscape (especially of views, open spaces, crops, and along the city's edge), have been minimized by the consensus decision of community leaders to accommodate growth by encouraging thoughtfully integrated new development, and redevelopment, in select locations of previously underutilized areas and in selected new development locations in a manner that minimizes impact on visual character or sensitive natural resources. This philosophy has been applied to both residential and non-residential development.

Economic Development – A Frankenmuth of Opportunity

Frankenmuth continues a progressive economic development program aimed at retention, expansion and attraction of compatible businesses, especially those that diversify the local economy. Tourism is still the primary economic base, and it is on a firmer foundation and jobs are more diversified than in 2004. The community's primary objective remains creating and maintaining a healthy and growing economy in Frankenmuth, while avoiding the costly pattern of sprawl.

Frankenmuth leaders understand that a healthy economy includes affordable housing and jobs with pay sufficient to support a family. The mixture of employment opportunities is greater than 2004 and includes jobs in high-tech office and research parks, adaptive re-use of older facilities, commercial infill development as well as a renewed and expanded tourism base. Young adults and new families no longer have to leave Frankenmuth to find enough employment opportunities with wages sufficient to support a family in housing they can afford to occupy.

Commercial, high tech research and office land uses continue to follow a planned expansion pattern as the need and opportunity exist. Key to expansion of tourism has been the establishment of a conference center.

Over the past twenty years, developers have worked with local officials to build or rebuild responsibly, fitting into the visual character of Frankenmuth, while protecting neighborhoods and sensitive environments. Where the visual character, sounds, dust, smells and level of activity of commercial and other economic development would not otherwise be compatible with residential neighborhoods and important views of open space, they were separated or buffered to minimize conflicts. Where commercial uses serve neighborhood residential needs, they were accommodated within or adjacent to residential neighborhoods, with architectural design and layout that fits the scale and character of the neighborhoods.

Not all new jobs have come from traditional means. There was substantial investment in fast telecommunications equipment so that all houses and businesses have fast internet service. This has led to the development of more internet based home businesses, some of which have spawned new small companies that moved out of homes into available office space in town. These businesses have not only helped to diversify the economic base, but also have cut down the energy costs associated with commuting, and provided more opportunities for young people to find jobs close to home.

City Center

Frankenmuth officials long ago recognized that the city center is key to the vitality of the community. To remain vital and "alive", the city center must be a place where citizens and businesses want to be. In achieving that end, Frankenmuth City leaders recognized they had a solid historical, cultural and visual heritage on which to build. Using that heritage as the foundation, a number of initiatives were undertaken which together have created the results evident today. The city center is continuously rejuvenated as the center for both city and township residents and most of the business activity. The city center has also been enhanced as downtown businesses are vital and diverse, and no new strip malls, regional shopping malls or "big-box" stores have been built at the edge of the city. All new commercial development is conveniently located to serve local residents. Most tourism development remains concentrated along Main Street south of Genesee Street, as well as south of the river and east of Main Street.

The downtown maintains its unique and appealing Bavarian architectural style and new buildings capture the human scale, level of detail and compact arrangement of structures from earlier periods. Structures and places of historical and architectural significance have been renewed and serve as reinforcing elements of visual character.

The city center is a vital, exciting and active place where sidewalks are lined with shops and are full of people. There is a vibrant mix of shopping, entertainment, restaurants, and offices. Multiple use development has brought residents, stores and offices into a closer proximity that enhances the success of those businesses and also provides for greater convenience and a more active lifestyle for those residents. Parks and streets are lined with beautiful trees, flowers and other landscaping.

Friendly, Cooperative Community

Frankenmuth business, city and township leaders long ago recognized that working together was critical to the long-term vitality of Frankenmuth. This characteristic of the people of Frankenmuth has endured almost two centuries and still holds strong today. Civic groups also play an important role, assisting in keeping Frankenmuth clean, attractive, and healthy with a sustainable environment and with a positive community spirit. Volunteer participation in community events and festivals is high.

Frankenmuth is a friendly and caring place to live and visitors feel the hospitality. The community is supportive of its citizens and helps provide constructive guidance. Members of all generations of the community share in its identity. Both cultural and natural resources are preserved through wide community support by citizens who understand the value of, and principles of preservation. Homes and lawns continue to be well maintained and cared for.

Leaders encourage a high level of citizen involvement from both residents and nonresident property owners. In return, community leaders are responsive to input from citizens and work diligently to implement public policy that has a broad base of support. Leaders uphold the public's trust when

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enforcing regulations that protect the environment, implement the master plan and zoning ordinances and otherwise act to enhance the public health, safety and welfare.

Quality of Life – Recreation

The Frankenmuth community has long held recreational opportunity as an important aspect of quality of life. Frankenmuth residents enjoy increased access to recreation compared to two decades ago. Public/private partnerships continue to be an excellent solution to some local challenges.

Citizens enjoy fishing, canoeing and kayaking on a cleaner and more accessible Cass River. Music and art events continue to provide entertainment for all generations of Frankenmuth citizens. Better linked streets, new bridges and strategic parking have greatly improved access to riverfront parks.

Links continue to be established between residential neighborhoods and commercial, research and office development to provide safe, attractive and low cost pedestrian and bike routes as alternatives to automobile circulation. There are also links to greenways with trails that extend beyond the City of Frankenmuth into the township and beyond. These greenways serve both as recreational opportunities in themselves and to connect destinations such as parks, shopping areas and neighborhoods.

Infrastructure

Good quality roads help move people and goods around the Frankenmuth community and access management has helped preserve the public investment in roads. A transit system has helped meet the needs of the community for affordable transportation and reduced vehicular traffic.

By continually reinvesting in compact and efficient sewer and water systems, utilities and transportation, Frankenmuth has demonstrated the capacity to satisfy both basic business requirements and quality-oflife criteria on par with any community in Michigan. New roads have been constructed on all sides of the city. These provide more options for local vehicles without overloading what are otherwise residential streets.

Intergovernmental Cooperation/Coordination

An agreement between the City of Frankenmuth and Frankenmuth Township remains a model that is being replicated statewide. The basis for this agreement is a shared vision and set of policies on how the community should grow while protecting open space and cultural heritage.

The common vision recognizes the autonomy, individuality and uniqueness of each unit of government, and establishes a mechanism for dealing with issues of greater than local concern. It is founded on the principles of respect and cooperation on issues of mutual interest, as well as on broad public involvement.

The City of Frankenmuth and Frankenmuth Township, with the help of the State, County, nonprofit and private partners, coordinate costs, timetables, responsibilities and resources in an effort to efficiently and cost effectively provide needed public services and facilities and to continue to upgrade the quality of life for the people who live here.

Local land use decisions remain guided by an urban limit line that has been formally agreed to by the city and township, a capital improvements program and common local zoning standards. Some issues of greater than local concern are subject to input from surrounding local governments before a final decision is made. Special ad hoc committees are established to aid communication among local governments in this process and to ensure adequate public participation. This program has significantly contributed, not only to the success exhibited by Frankenmuth over the last twenty-five years in achieving its long term goals, but also to that of the entire region as one of the most popular living, working, shopping and recreating areas in the entire State.

GOALS, OBJECTIVES AND POLICIES Introduction

The goals, objectives and policies that follow are based on the 1985 <u>Future of Frankenmuth</u> <u>Community</u> goals and objectives and were updated to reflect the public input that went into this Plan. Goals, objectives and policies are organized by the same broad categories as in the 1985 document: Overall Social Goal, Economic Goals and Physical Development Goals. More detailed goals are organized under those categories. Objectives from 1985 are also included where they are still relevant.

Goal: Goals are broad-based statements of intent and establish the direction for the Frankenmuth Joint Growth Management Plan. Goals could generally be thought of as the desired "ends" of successful implementation of the Joint Growth Management Plan.

Objective: Objectives are the stated "means" of achieving each goal, or the tasks to be carried out in the process of realizing goals.

Policy: Policies serve as a guide to decision-making that ultimately affects the outcome of various objectives. Decisions affected by policies ideally contribute to successful implementation of the Plan goals and objectives. Many of the policies in this Plan will require regulatory or program changes in order to be implemented.

SOCIAL GOALS, OBJECTIVES & POLICIES

<u>OVERALL SOCIAL GOAL</u>: To assimilate modest population increase while maintaining the community's attitudes, values and traditions.

The community has very strong traditions. These traditions include the community's religious heritage and ethnic heritage which are often highlighted. The traditions also include unusually strong adherences to several fundamental human values. Most important of these are 1) a strong work ethic, 2) honesty, 3) frugality, and 4) an eye to quality in the way in which citizens organize the activities and artifacts of their lives.

Overall Population Objective:

• A moderate rate of population growth is desired that can be adequately served without straining public facilities or over-extending city and township government.

The overall social goal is also embellished by the following institutional objective.

Overall Institutional Objective:

• The physical and economic structure of the community will be planned so as to promote the strength of the basic institutions that have been central to the cultural and value heritage of the community. These institutions include the family, the church, public and parochial schools, community organizations, and the land.

Additional goals to help realize the above institutional goal are located in the economic and physical development sections that follow.

<u>Goal 1</u>: Enhance and maintain a unique, coherent city visual and social identity, distinct and separate from surrounding communities.

Objectives:

- Develop or maintain existing community programs for people of all ages to keep alive Frankenmuth heritage and traditions.
- Maintain a greenbelt of agricultural land around the city. (See Physical Development Section).

- Develop and maintain a tree management program that establishes and ensures a continuous tree canopy throughout the city and especially along public streets.
- Develop distinctive entry signs for major road entries into the city.
- Maintain a unified street and public facility sign system that reflects the character of the city.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The Frankenmuth community maintains a unique visual and social identity that reinforces its traditions and heritage and differentiates itself from neighboring communities.
- A clear line separates the edge of the city from the farm fields in the township.
- Visual elements and people-oriented programs will be utilized to maintain the community identity and traditions.

<u>Goal 2</u>: Preserve and promote the rights of the individual property owner while maintaining a simple, small town Bavarian character.

Objectives:

- Periodically provide educational materials to citizens and businesses on the purposes and strategies inherent in local plans and development regulations.
- Develop illustrated design guidelines that define the Bavarian character so that businesses can easily
 develop, remodel and manage their properties in a manner that protects and enhances that character while
 providing flexibility and options for the landowner.
- Develop a list of zoning elements that need updating to reflect standards and techniques to protect community character and at the appropriate time, make the necessary ordinance changes.

It is the Policy of Frankenmuth City and Frankenmuth Township to:

 Ensure the preservation of the rights of property owners and the rights of the community to maintain a small town, Bavarian character through adoption and enforcement of appropriate land use, natural resource and environmental preservation regulations.

Goal 3: Preserve and promote the historic identity of properties in the city historic district.

Objectives:

- Develop design guidelines for protecting historic character in the historic district.
- Provide training for historic commission members in preservation techniques and zoning procedures.
- Update as needed, zoning elements pertaining to the historic district to better protect historic character.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The preservation of historic structures and spaces still remaining in the Historic District is encouraged.
- Residents are provided with information on assistance programs for preserving and restoring historic properties.
- Site development in the Historic District should relate to and be compatible with adjacent buildings, land uses and the Bavarian and historic character of the community.
- The use of architectural materials, trees and shrubbery in the Historic District should emulate and improve the Bavarian and historic character.
- The safe movement of pedestrians within the city and Historic District are ensured by reducing pedestrian and automobile conflicts.
- Proposed land use changes in the Historic District should continue to be submitted to the Planning Commission and the Historic Commission for review and approval as is provided for by ordinance.

INTERGOVERNMENTAL COOPERATION

<u>Goal 4</u>: Frankenmuth City and Township continue to regularly communicate and cooperate in making government services more effective.

Objectives:

- The city and township regularly coordinate information sharing and analysis of cost effective provision of government services.
- Issues of greater than local concern are dealt with on a community-wide basis, including, where appropriate, neighboring jurisdictions at the township, city, village and County levels.
- Emergency services are efficiently provided on a cross jurisdictional basis.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The city and township promote the use of periodic meetings as a forum to discuss public service and facility issues of greater than local concern, and to promote joint decision making while respecting local autonomy.
- The city and township regularly share information with adjoining jurisdictions and the public regarding public service issues facing residents and decision makers.
- The city and township include adjacent jurisdictions in the preparation and review of draft plans and development regulations prior to adoption to ensure land use relationships are compatible with one another and to provide for the efficient provision of public services.
- Educational opportunities for local elected and appointed officials are provided on land use issues, planning and regulation.

Goal 5: The Frankenmuth community maintains an economic and cultural vitality.

Objectives:

- Create a vibrant and bustling city center that is functional, people oriented and the center of activity within the community.
- Business activity in the community is focused in and near the existing city center, except as otherwise provided in this Plan.
- Tourism activities enhance business and are consistent with the character of the community.
- Existing civic and cultural facilities are retained in the city center and new or expanded civic and cultural facilities are placed in or close to the city center.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Business activity be promoted that strengthens the existing business center and industrial park and provides more diversified year round employment.
- When pursuing efforts to attract new jobs, the city and township and economic development groups seek out and solicit businesses which are environmentally responsible and that honor design guidelines for historic and small town centers.
- The city and township encourage desirable forms of tourism in the community, including those that occur during off-seasons.

RECREATION FOR ENRICHING THE MIND AND BODY

<u>Goal 6</u>: Both the public use of the Cass River will be enhanced and the peaceful, safe and environmentally sustainable use of private and public waterfront property will be protected.

Objectives

- The city and township has established an appropriate number of river access sites at available locations.
- Adequate public launch sites with off-street parking, buffered from adjacent properties are located along the Cass River.
- Educational programs are available for persons who fish and boat regarding safety, shoreline and nearshore habitat protection and private property rights.
- Enforcement of regulations pertaining to watercraft use, safety, habitat protection and trespass is adequate to reduce conflicts.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

• The Frankenmuth City and Township Planning Commissions, the Parks and Recreation Commission, the Department of Natural Resources and Environment and other local jurisdictions will jointly cooperate

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in the development and maintenance of adequate public launch sites with off-street parking, buffered from adjacent properties.

• The Frankenmuth Parks and Recreation Commission and local sporting and recreation groups will develop educational programs for persons who fish and boat regarding safety, shoreline and near-shore habitat protection and private property rights.

<u>See Appendix A – Cass River Greenway Plan.</u>

<u>Goal 7</u>: Public lands will be retained for future generations and managed on a sustainable basis.

Objectives

- Existing parkland will be retained and new public lands for parks and trails will be acquired and developed in order to serve the recreation needs of the community.
- Priority for acquisition of new parkland will be focused on property adjacent to the Cass River.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

 The Frankenmuth City and Township Planning Commissions will coordinate the acquisition of title to or easements to lands to provide a coordinated trail and park system in a cost effective manner before opportunities are lost through development that does not consider the future recreational needs of the community.

Goal 8: Trails provide recreational opportunity throughout the Frankenmuth community.

Objectives:

- A trail corridor plan has been developed for the Frankenmuth community.
- Trails in the Frankenmuth community connect to regional trails and destinations and utilize available property along the Cass River.
- New developments provide easements for trail corridors that will connect with trail corridors on adjacent properties and as part of a regional system.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The Frankenmuth City and Township Planning Commissions, in conjunction with the Parks and Recreation Commission, will develop and implement a trailways plan that provides non-motorized recreational trails and connections between settlement areas and connections to trails and destinations within the region.
- The City and Township Planning Commissions will encourage new developments to include easements or land dedication for interconnected trail corridors.

<u>Goal 9</u>: A community center provides recreation opportunities for Frankenmuth residents of all ages.

Objectives:

• A community recreation center serves youth, young adults, families and seniors, provided it has a variety of recreation opportunities and is financially feasible and equitable to build and properly maintain. All reasonable financial options including grant funding, general property tax, user fees and other means, including combinations will be examined before a decision is made.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

• The city and township explore a public/private partnership to finance construction, operation and maintenance of a community center with an appropriate mix of indoor recreation facilities that will serve all ages and will be built when such a project can be economically pursued and equitably financed.

<u>Goal 10</u>: Frankenmuth's recreation facilities will be improved to provide the community and visitors with parks that are functional for a variety of uses.

Objectives

• Promote and enhance existing recreation facilities through maintenance and improvements.

• Develop additional facilities, especially a permanent location for soccer fields to meet the needs of the community.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Existing parks and facilities will continue to be maintained at a high level that is customary in Frankenmuth, through both daily maintenance activities and renovations.
- The community will pursue the development of additional parks & athletic facilities, in appropriate ways and locations that will be sustainable over time.

ECONOMIC DEVELOPMENT GOALS, OBJECTIVES & POLICIES

OVERALL ECONOMIC GOAL: To grow modestly as an employment center for tourism, research, financial, light industrial and agriculturally based activity, approaching self-sufficiency in commerce and services, but continuing to rely on other urban centers for some supplemental employment.

<u>SECONDARY OVERALL ECONOMIC GOAL</u>: To manage costs and revenues so as to maintain financial selfsufficiency in the public sector.

<u>Goal 1</u>: The Frankenmuth community has a sustainable, growing and diversified economy linked to regional growth.

Objectives:

- Encourage redevelopment of underutilized and vacant industrial areas and brownfield sites by 2024 where compatible with adopted land use plans.
- Locate new businesses and industries in places where adequate public services are already available.
- Continue to plan for the timely but measured extension of public sewer and public water to areas where those services can be efficiently provided with costs borne by the benefiting property owners wherever feasible.
- Include buffering standards in zoning ordinances to minimize negative impacts of businesses on abutting property.
- Ensure that new economic development occurs without causing environmental harm.
- Continue to upgrade and enhance the city and township's transportation and infrastructure system to satisfy the needs of business and industry in a cost effective manner.
- Strengthen support for compatible tourism-related development in planned locations.
- Promote high tech, office, health and light industrial uses on the city-owned property on North Main Street in Frankenmuth.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The Frankenmuth Township Board of Trustees, the Frankenmuth City Council, the Frankenmuth Economic Development Corporation (EDC), the Downtown Development Authority, and the Chamber of Commerce actively promote existing, available commercial and industrial sites already serviced by public sewer and water.
- Public sewer and public water service will be incrementally expanded within the urban limit line boundaries developed as part of the Joint Growth Management Plan, as the need for them is demonstrated, and when the expense is borne by the benefiting property owners.
- The City and Township Planning Commissions will ensure buffering provisions in both zoning ordinances are adequate to prevent nuisances and protect the environment.
- The EDC carefully plan for and develop the job producing city-owned property on North Main Street consistent with this Plan.

<u>Goal 2</u>: The economy of the Frankenmuth community provides full employment with sufficient wages to support families.

Objectives:

- Attract and retain a work force able to secure and maintain employment, work productively and earn a living wage.
- Establish technical and educational support programs that match residents with industry needs.
- Create new jobs through retention and expansion of existing employers and the attraction of new companies.
- Target job opportunities that allow children to stay in the community after high school or return after a college education.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Local businesses and the Chamber of Commerce should be encouraged to work with area schools and regional colleges and technical schools to develop training and continuing education programs and placement programs for potential and existing workers.
- The Frankenmuth Economic Development Corporation will balance its efforts to include both business retention and new business attraction.
- Local businesses will develop mentoring programs to cultivate long-term commitments between employers and employees that include educational opportunities.

<u>Goal 3</u>: Agricultural businesses remain healthy in the Frankenmuth community.

Objectives:

- Encourage the retention of agricultural lands as active farms.
- Encourage the retention and development of needed agricultural support businesses.
- Farms do not fail due to high property taxes.
- Large blocks of agricultural lands are protected through enrollment in PA 116, agriculture security zones and purchase or transfer of development rights programs.
- Zoning Ordinances do not promote premature conversion of land from agriculture to other uses.
- Productive agriculture lands are zoned to protect agriculture from potential problems created by non-farm uses.
- New, non-farm home buyers near agricultural properties are provided with educational materials regarding typical farm practices and right-to-farm laws.
- Public sewer is not extended into agricultural areas where there are productive soils except within the urban limit line or unless an approved PA 425 agreement is in place.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The city and township support applications of agricultural land owners to participate in agricultural land preservation programs.
- The city and township jointly coordinate sewer and water extensions within the urban limit line.
- The city and township actively support legislation to adequately fund an agriculture preservation trust fund and authorize local transfer of development rights programs.
- The Frankenmuth Township Planning Commission, Township Board, the Frankenmuth City Planning Commission and City Council support transportation and other improvements that facilitate the safe and efficient movement of agricultural goods within the County and the region.

<u>Goal 4</u>: Tourism is the healthy heart of the Frankenmuth economy.

Objectives:

- Diversify tourist opportunities within Frankenmuth.
- Retain or enhance scenic qualities along road corridors and downtown.
- Establish a convention center in Frankenmuth.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

• The city and township will work with the Downtown Development Authority, the EDC and Chamber of Commerce to attract new tourism businesses that are compatible with existing businesses and diversify the current mix of tourism businesses.

- The City and Township Planning Commissions will develop scenic corridor guidelines for M-83, East Curtis Road, Junction Road, Tuscola Road, and Dehmel Road. These guidelines will illustrate steps landowners can take to protect rural scenic quality.
- The City Planning Commission, Chamber of Commerce, Economic Development Corporation, and DDA will work with business owners to develop a model sign ordinance for the Frankenmuth community that promotes both the viability of individual businesses and high quality scenic character.
- The city, DDA and EDC will work with the Chamber of Commerce to create a public/private partnership that systematically examines the feasibility of a convention/conference center in Frankenmuth that can be financially self-sufficient and if feasible, will pursue its creation.

PHYSICAL DEVELOPMENT GOALS, OBJECTIVES & POLICIES

<u>OVERALL PHYSICAL DEVELOPMENT GOAL</u>: To grow as a carefully planned center of urban development, surrounded by a greenbelt of farmland, woods, and sparsely spaced non-farm residences located on land less suited for agriculture; except for land inside the urban limit line.

Overall Geographic Expansion Objective:

 Urban growth will consist of well organized physical development expanding out from the existing urbanized area focused on the City of Frankenmuth.

SUSTAINABLE GROWTH PATTERNS

<u>Goal 1</u>: The city and township continue to cooperate in the development of coordinated planning and implementation of a coordinated zoning program targeted at guiding growth in a sustainable pattern.

Objectives:

- The city and township coordinate goals of the Joint Growth Management Plan.
- The Zoning Ordinances of both jurisdictions serve to implement local goals in a manner consistent with the goals of the Joint Growth Management Plan and provide, at a minimum, clear and unambiguous standards for public health, safety, welfare and sustainable growth.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

• Each Planning Commission and governing body commits to educating the public and providing leadership on planning and zoning to achieve sustainable growth consistent with the elements of this Joint Growth Management Plan.

<u>Goal 2</u>: New development continues to occur in a compact settlement pattern within the urban limit line where public services can be cost effectively provided and public facilities and infrastructure are built and/or extended in a way that promotes compact growth.

Objectives:

- The city and township continue to jointly review and approve new development within the urban limit line via identical PUD requirements.
- The Zoning Ordinance of the city and township permit mixed-use (such as commercial and residential in the same building) in appropriate zones and clustering to reduce sprawl and promote the cost-effective provision of public services.
- The Zoning Ordinance of the city permits two, three, and possibly four story structures downtown that combine retail, office and residential uses to better utilize existing public services and facilities and to discourage leap frog development elsewhere.
- The city and township provide modest density incentives for high quality development that meets certain standards.
- Develop a system of pedestrian and auto-free paths or lanes that connects residential areas with public facilities and commercial areas.

• All publicly financed buildings are consistent with Joint Growth Management Plan and applicable zoning requirements.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- New land uses are only permitted consistent with this Plan and applicable zoning regulations of both the city and township.
- Joint PUD review of development within the urban limit line be continued and projects will be approved only where all ordinance standards are met.
- The city adopts ordinances that permit mixed uses in appropriate areas within the city.
- The City and Township Planning Commissions continue to discourage sprawl and strip commercial development.
- The city and township and other agencies, including the school district, agree to locate future public facilities within walking distance of residents where ever possible.
- Wherever feasible, the city, township and other public agencies utilize existing, available sites or buildings instead of building on "greenfields" outside of town.
- The city and township and other jurisdictions or agencies locate public facilities according to adopted zoning, and design the facilities to be good neighbors, visually and functionally.
- The city and township help provide an integrated path/sidewalk system to link public facilities, commercial development and new residential development to existing residential areas.
- The township continues its residential development permit allocation system as a way to protect agricultural land.

<u>Goal 3</u>: Land is not divided into parcels of such size and shape that they negatively affect farming, transportation, the environment, provision of services by governments and rural character.

Objectives:

- All land divisions are reviewed and approved by the city or township prior to recording (unless they are greater than 40 acres in size).
- Appropriate land division standards prevent the creation of unbuildable lots or those that create traffic hazards, harm the environment, limit agricultural activities, create premature public service burdens or contribute to the destruction of rural character.
- Where appropriate, the township encourages cluster development on a portion of the parcel and leave the rest in agriculture or permanent open space.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The city and the township lobby the legislature to revise the Land Division Act to provide greater local control of land division and permit platting on a faster basis with adequate protection of public interests than is presently permitted.
- The city and the township coordinate creation of land division standards and make these standards available to land owners, realtors and persons interested in buying or dividing land in the Frankenmuth community.
- The city and township zoning boards of appeals restrict variances on land splits to only exceptional cases of extreme hardship.

<u>Goal 4</u>: Residential development fits the scenic, rural and small town character of the Frankenmuth community.

Objectives:

- Important farmland and scenic resources are protected.
- New residential subdivisions, site condominium projects and individual land divisions provide open space where there are sensitive environments, greenway, trail and wildlife corridor opportunities and vegetative buffers along roadsides and water bodies.
- Preservation of farmland and the natural environment is encouraged through coordination of city and township planning and zoning efforts that discourage land fragmentation.
- New residential development respects the natural conditions and characteristics existing in the Frankenmuth

community.

• Provide for a broad range of housing opportunities that respond to the varying economic, family and lifestyle needs of residents and tourists while maintaining consistency with the character of existing residential areas.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The Township Planning Commission adopts development regulations that include buffer standards between
 residential land uses and agricultural or forest, commercial or industrial land uses to minimize the nuisance
 impacts of one use upon the other. However, existing agriculture or forest land uses will have priority over
 new residential uses, and farming operations will be encouraged to continue in areas zoned for agriculture
 or forest as the principal permitted use. Such areas will not be rezoned to residential as long as agriculture
 or forest remains a viable use of the land, unless such land is within the urban limit line and a viable project
 that meets ordinance requirements comes along.
- The city and township will adopt, implement and maintain common zoning, site condominium, subdivision, private road and lot split regulations to prevent premature conversion of large parcels and to ensure safe and adequate access to all properties.
- The city and township should contain an adequate distribution and mix of housing to enable each resident to secure safe, adequate housing at an affordable price in locations with adequate public services.
- The city and township will employ capital improvements planning to assist in the provision of new infrastructure and improvements within the community.

<u>Goal 5</u>: New residential development enhances existing city neighborhoods and is compatible with the historic district.

Objectives:

- Maintain the historic district to help preserve existing historic housing through reasonable regulations, design guidelines and educational assistance.
- Encourage redevelopment and expansion of existing neighborhoods, reinforcing and strengthening the small town, Bavarian character in the city, providing design guidelines to assist property owners.
- Encourage new residential development that creates a sense of place and achieves harmony with existing development.
- Create new neighborhoods that are pedestrian oriented and interconnected with the larger community by trails and/or sidewalks.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The City Planning Commission helps develop design guidelines for historic preservation of older neighborhoods as they approach historic age.
- The City and Township Planning Commissions help develop design guidelines for residential development that identifies and promotes continuation of local architectural character.
- The city and township require new subdivisions and site condominium projects to include provision for links to a bicycle and pedestrian circulation system between residential areas, the city and important natural features.
- The City and Township Planning Commissions ensure new residential development is of the same quality as existing neighborhoods.

Goal 6: The Frankenmuth community has high scenic quality based on its farmland.

Objectives

- Farm fields remain the primary views from roads outside of the city.
- Retain the natural character of existing transportation corridors and the scenic views from these corridors by the preservation of farms, roadside trees, other natural vegetation and woodlots.
- Identify and preserve the historic features of the township, with a special focus on historic farm residences and barns.
- Development is consistent with and responsive to natural landforms.
- The density/intensity of new development compliments and is consistent with the established character of the township.

- In township rural areas, new development is very low density or clustered.
- Open space, especially scenic vistas and corridors, is not lost through land fragmentation and/or uncoordinated, poorly planned or designed development.
- Utility lines are placed underground where feasible or relocated in separate corridors away from roads.
- Sign ordinances eliminate the construction of new billboards, but provide for business identification and communication of other essential messages through alternate means, including small and cluster signs.
- Design guidelines illustrate for property owners how to manage roadside areas of their properties to enhance scenic quality. This would include guidelines on vegetation, access control and signs.
- A dark, night sky will be preserved.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- New residential, commercial and industrial development in the township is:
 - In locations with services adequate to meet its needs.
 - Respectful of environmental resources.
 - Consistent with the character of development in the area.
 - Consistent with the policies of this Plan and applicable local regulations.
 - Built with consideration of adequate buffering and transition features between conflicting land uses.
- The city and township governments work together to protect open space, especially scenic vistas and corridors, from loss through land fragmentation and/or uncoordinated, poorly planned or designed development.
- The Frankenmuth Township Planning Commission develops design guidelines that illustrate for property owners how to manage roadside areas of their properties to enhance scenic quality. This would include guidelines on vegetation, access control and signs.
- The Frankenmuth City and Township Planning Commissions adopt sign ordinances that prohibit new billboards, but provide for business identification and communication of other essential messages through alternate means, including small and cluster signs.
- The City and Township Planning Commissions work with local developers and utility companies to place utility lines underground where feasible or relocate in separate corridors away from roads.
- The City and Township Planning Commissions adopt design guidelines for lighting that encourage shaded, down directed lights and limit upward shining lights.
- Ensure that as road improvements are made, rural roads remain rural in character.
- Limit the frequency of driveways along all roads except those exclusively serving residential neighborhoods.

<u>Goal 7</u>: Alternative modes of transportation reduce the use of roads by automobiles.

Objectives:

- Promote the use of recreational trails for use by non-motorized "commuters".
- Support transit systems to meet the needs of senior citizens, low and moderate income workers and businesses dependent on mobility of the workforce.
- Identify and, where necessary, implement traffic calming strategies to minimize the negative effects of traffic on the city.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Citizens should be educated about the characteristics and benefits of multi-modal transportation systems.
- Frankenmuth City and developers are encouraged to maintain existing sidewalks and build new sidewalk and trail systems that connect residential areas to commercial and other activity areas.
- A demand responsive transit service and downtown fixed route transit service should be studied with strong encouragement for the private sector to provide such service.

<u>Goal 8</u>: Ensure basic mobility for all Frankenmuth community citizens that work in Frankenmuth, Saginaw, Flint and other areas in the region by ensuring safe, efficient and economical access to employment, education opportunities and essential services through well-maintained and upgraded roads and non-motorized routes in a manner that does not negatively impact the rural and small town character of the area.

Objectives:

- Maintain an up-to-date capital improvement budget and program to ensure that transportation maintenance and improvement needs can be satisfied over the long run. Improve roads based on current use and projected future use levels, except where improvements would promote growth inside the urban limit line.
- Coordinate planning efforts with the Michigan Department of Transportation and County Road Commission as accessibility is improved both to and within the community along existing and proposed highway corridors.
- Provide a wide variety of transportation opportunities, such as biking and walking, to meet the diverse needs of present and future residents.
- New land development occurs in areas that have adequate road capacity to meet the demands of that new development.
- Traffic congestion and hazards are minimized by coordinating land use development and highway improvements.
- Develop an access management program to control access along existing M-83, Junction Road, East Curtis Road and Dehmel Road.
- Improve the safety and efficiency of the city's and township's existing and future road system.
- Provide needed repairs to the road system in a timely manner.
- Develop community support for funding levels adequate to provide for road and bridge repairs and improvements.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The two communities will work together and agree on the design elements that are desired to be part of any
 road improvements or new road or bridge construction (i.e., road design, accessibility, physical barriers,
 safety issues, maintenance of tree canopy, bicycle or pedestrian paths, etc.) prior to major road
 improvements.
- The Saginaw County Road Commission, Frankenmuth City and Township will develop and implement a long term road improvement and multi-modal transportation plan consistent with this Joint Growth Management Plan.
- City and township zoning and subdivision regulations will include access management and private road standards to ensure safe and convenient turning movements and access by emergency vehicles.
- Expansion or improvement of the road system should be consistent with this Plan and the adopted Capital Improvement Plan.
- Citizens be informed of major road improvement needs and asked for feedback prior to preparation of final improvement plans.

Goal 8.5: Consider natural features maps and maps of existing natural resources when planning areas for future land uses or public infrastructure, when considering proposed amendments to the Master Plan or Zoning Ordinance, and when considering any new public or private uses of land or public buildings.

Objectives:

The Planning Commission will:

- Use natural features maps prepared by the University of Michigan Flint, and consider them a part of an environmental inventory.
- Use natural features maps, and maps of existing natural resources to plan for future land use, infrastructure and economic development.
- Update the Zening Ordinance to include further consideration of natural features and natural resources on amendments and site plan review decisions.

NATURAL RESOURCES

<u>Goal 9</u>: Habitat adequate to sustain a diverse wildlife population is protected in the Frankenmuth community.

Objectives

- A greenspace system throughout the Frankenmuth community protects ecological corridors with a special focus on land adjacent to the Cass River and connecting waterways and woodlots.
- <u>Natural features maps (such as prepared by University of Michigan Flint) will be considered when planning areas for future land uses or public infrastructure, when considering proposed amendments to the Master Plan or Zoning Ordinance, and when considering any new public or private uses of land. (See Map 5-1)</u>
- Guidelines illustrate how to preserve ecological corridors and discourage barriers such as fencing, where it is not necessary.
- Promote compact residential and commercial development inside the urban limit line.
- The city and township employ site plan review to insure that property owners and developers locate structures, utilities, roads and sidewalks in the less sensitive portions of the property, conserve wildlife habitat and leave open space/habitat where it connects to open space/habitat on adjoining properties.
- Develop public education materials, <u>including a natural features inventory map</u>, and programs on how to live in harmony with wildlife.
- Woodlands will be managed on a sustainable basis for their natural beauty and habitat for native flora and fauna.
- The Planning Commissions will work with local land conservancy and conservation organizations, as well as private landowners to protect significant natural features and certain natural resources through donation of land, conservation easements, deed restrictions or targeted land purchases.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- A greenspace system of interconnected, undeveloped land, buffers, ecological corridors, forests, floodplains, wetlands and other open space in private and public ownership is identified and protected in the Frankenmuth community.
- The Frankenmuth City and Township Planning Commissions develop guidelines for property owners, developers and business owners on how to preserve or sensitively develop near wildlife corridors.
- The Frankenmuth Township Planning Commission will maintain conservation subdivision and PUD ordinances and promote the use of these techniques for new development.

<u>Goal 10</u>: The clarity and quality of the water and the condition of the banks and shores of the Cass River are the same as or close as is feasible to pre-settlement conditions.

Objectives

Frankenmuth City and Township will support and build on the plans and actions of the Cass River Greenway Committee and continue to work with other organizations to:

- Monitor the quality of the water and other ecological factors.
- Educate citizens, property owners and local government officials on the status of water quality and the values and benefits of water quality protection. Provide pamphlets and links to web sites with information of Low Impact Development and other best management practices for water quality. Periodically host education sessions pertaining to land use planning and zoning, water quality assessments and water quality protection techniques. Encourage local schools to host experts in water quality protection and involve K-12 students in analysis of water quality and implementation of BMP's to protect water quality.
- Educate citizens regarding river ecology issues such as fertilizer runoff, <u>storm water control</u>, bank and shoreline protection, <u>and</u> the need for safe septic systems. <u>These are areas where all residents can have an impact on local water quality</u>.
- Work with Soil Erosion & Sedimentation Control Officer, the County Drain Commissioner/Road Commission to promote education about, and the coordination of, drain maintenance activities with public and private landowners for implantation of BMP's to reduce soil erosion and sedimentation of drains and other water bodies. Work with local conservation organizations to educate landowners about drainage methods that clear fields without causing sediment loads that close and dam drains.
- Initiate efforts in cooperation with the Drain Commissioner and conservation organizations to educate landowners about the potential benefits of various Low Impact Development techniques and other storm water management best management practices including, but not limited to: rain gardens, retention basins, alternatives to impervious surfaces, vegetative cover, steep slope protections and two stage ditches/channels or naturalized ditches.

- Work with the soil conservation and other stakeholder organizations to support and encourage best
 management practices for agriculture which respect the environment and protect water quality. Agriculture
 BMP information is available from various sources such as the Michigan Dept. of Agriculture, Michigan
 Agriculture Environmental Assurance Program and local Conservation District offices.
- Develop a watershed management plan to recommend solutions to water quality problems.
- <u>Support the implementation of the Cass River Watershed Management Plan, developed and approved in</u> 2014, which identifies and recommends solutions to the key environmental challenges within the watershed.
- Monitor the destructive, disruptive and illegal activities of riverbank residents and visitors, and work with local officials to identify and correct problems.
- Waterfront property owners on the Cass River will enjoy privacy while public access to the water is retained or improved.
- Provide greenbelt setbacks on all rivers, streams and lakes.
- Establish a coordinated permit system among local, county and state government, including Site Plan Review, to ensure water quality protection standards are met and development activities proceed without unnecessary burden on private interests. Zoning ordinances provide that no zoning permit, special use permit, or any other permit will be issued for a project until all other required agency approvals have been granted, or that any zoning or other permit under the Zoning Ordinance shall only be issued conditioned on the receipt of valid permits from certain specified agencies within a specified time.
- Provide education and increased enforcement for the proper installation of eresion control techniques.
- Limit impervious surfaces (parking lots, driveways, roofs, etc.) within watersheds, especially headwater areas.
- Road and trail crossings of streams and large drains should be via bridges instead of culverts where feasible. <u>Promote education regarding road and bridge repair using BMP's to reduce soil erosion and</u> sedimentation of drains and other water bodies.

The Master Plan already includes conservation easements as a potential tool for a variety of purposes including trail development. The fellowing objective could be added to the above to apply the use of this tool for protection of significant natural features as well.

 <u>The Planning Commission will work with local land conservancy and conservation organizations, as well as</u> private landowners to protect significant natural features and certain natural resources through donation of land, conservation easements, deed restrictions or targeted land purchases of land.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- The City and Township Planning Commissions work with sports and recreation groups, the Chamber of Commerce, state officials, the Saginaw Conservation District, the Saginaw Bay Watershed Initiative Network, the Cass River Greenway Committee and other local units of government to continue monitoring, education and enforcement efforts for management of the health of the Cass River.
- The Frankenmuth City and Township Planning Commissions adopt setback and vegetative buffer requirements for the Cass River and tributaries not already subject to more restrictive standards and block livestock access to streams and rivers.
- The Frankenmuth City and Township Planning Commission adopt changes in site plan review standards that promote bridged crossings of streams and large drains instead of culverts.
- The Frankenmuth Township Planning Commission adopt changes in the Zoning Ordinance to limit impervious surfaces in headwater areas and close to water bodies.
- <u>City and Township zoning regulations ensure new development and redevelopment protects water</u> <u>bodies and water quality by proceeding according to an approved Soil Erosion and Sedimentation</u> <u>Control Permit and that new development projects are required to provide for on-site storm water</u> <u>retention and use Low Impact Development techniques where reasonable and feasible.</u>

See Appendix A – Cass River Greenway Plan

<u>Goal 11</u>: Groundwater in the Frankenmuth community is not contaminated nor threatened.

Objectives

• Sites of contaminated groundwater, as discovered, will be de-contaminated.

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- Sites where groundwater is threatened with potential contamination will be closely monitored and threats removed.
- Property and business owners will be provided educational opportunities to learn how to protect groundwater from contamination.
- Existing and future abandoned wells will be identified and properly capped.
- Groundwater contamination violators will be required to restore contaminated sites and remove plumes of contaminated groundwater.

This goal on groundwater protection could be beefed up with inclusion of the following additional objectives:

- <u>Site Plan Review standards are included in the Zoning Ordinance to protect groundwater from pollution by</u> addressing secondary containment, drain discharge location, and setback from wells.
- <u>The Planning Commission and Zoning Administrator will provide educational materials to citizens and</u> <u>stakeholders on protecting groundwater and on the outcome of groundwater monitoring.</u>

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Frankenmuth City and Township will promote action by the Department of Environmental Quality to cap abandoned wells.
- The city and township will work with the Department of Environmental Quality to ensure the clean up of sites of environmental contamination.

PUBLIC FACILITIES AND SERVICES

<u>Goal 12</u>: Provide a range of public facilities and services consistent with the rural character of the community, which meets present and future needs and supports the public health, safety and welfare of residents and visitors.

Objectives:

- Police, fire and emergency services are consistent with public need and the ability to finance improvements in the most cost-effective manner.
- Solid waste, recyclable and hazardous materials are disposed of safely, effectively and efficiently.
- Sewer and water service to land within the urban limit line is provided consistent with the goals, objectives and policies of this Plan.
- Police, fire and emergency services respond as rapidly and effectively as possible in a largely rural community.
- Residential development without public sewer service is limited to locations within the township where construction of on-site septic systems meets all public health requirements.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Expansion of sewer and water to land within the urban limit line is permitted only when consistent with the planned intensity of land use and with all applicable regulations.
- The city and township continues participation in county management of solid waste and recycling.
- A Capital Improvement Plan is annually prepared and updated listing proposed public improvements by location, cost and means of financing for the next six years. Proposed public facilities should be consistent with this Joint Growth Management Plan.

EARTH CHANGE ACTIVITY PER THE SOIL EROSION & SEDIMENTATION CONTROL ACT

Geal 13: The Planning Commission will help establish a coordinated permit system among local, county and state government, including Site Plan Review, to ensure water quality protection standards are met and development activities proceed without unnecessary burden on private interests.

Objectives:

 <u>Amend the Zoning Ordinance to provide that no zoning permit, special use permit, or any other permit</u> authorized under the Zoning Ordinance will be issued by the Zoning Administrator for a project until all other required agency approvals have been granted, or that any zoning or other permit under the Zoning Ordinance shall only be issued conditioned on the receipt of valid permits from certain specified agencies within a specified time.

It is the Policy of Frankenmuth City and Frankenmuth Township that:

- Zoning regulations should ensure new development and redevelopment protects water bodies and water <u>quality by proceeding according to an approved Soil Erosion and Sedimentation Control Permit.</u>
- Zoning regulations should ensure all new development projects are required to provide for on-site storm water retention and use Low Impact Development techniques where reasonable and feasible.
- <u>Zoning regulations should reflect that existing vegetation that is healthy and suitable for landscaping</u> objectives and which reduces soil erosion and sedimentation, should remain undisturbed as new development occurs.
- Zoning regulations should reflect existing topography be respected and utilized to the advantage of proposed development, without resorting to massive excavation and drastic alteration. Zoning regulations should restrict uses permitted in steeply-sloped areas to these which can be accommedated to the existing terrain without unreasonable present or future threats of soil erosion, or unnecessary risk of new buildings cracking or slumping.

IMPERVIOUS SURFACE REDUCTION

[Goal 10 on page 5-15 already adequately addresses this issue. If the City and Township want to be a leader in this area, the following language could be added here.]

Geal ##: Keep the amount of new impervious surfaces low and reduce impervious surface area or impact where the opportunity presents itself. Impervious surfaces, include parking lots, reads, building reaftops, and walkways.

Objectives:

- Zoning Ordinance standards will be used over time to keep the amount of impervious surface inside the city below 20% and outside the boundaries below 10%. Limited residential lets in the Township and clustering of buildings in PUDs and Condominium Developments, would all help to keep the amount of impervious surface down.
- <u>The Planning Commission will encourage that public facilities consider the installation of pervious pavement</u> on walks, drives and parking lots when designing new or replacement facilities. Private parties shall be oncouraged to consider these options as well.
- <u>The Planning Commission will encourage the construction of new public buildings with green roofs.</u>

PUBLIC EDUCATION

Evelowing are five areas where public education by the Planning Commission and Zening Administrator in cooperation with other agencies and stakeholder organizations (like conservation groups) can help encourage landowner use of best management practices (BMPs) to protect water quality. The Michigan Planning Enabling Act specifically authorizes the Planning Commission to expend public funds for the purpose of educating the public on the values and benefits of good planning and best practices. All of these are proposed to be addressed in a new category of PUBLIC EDUCATION beginning with Goal 14.

Agricultural BMPs

Geal 14: The Planning Commission and Zoning Administrator will work with soil conservation and other stakeholder organizations to support and encourage best management practices for agriculture which respect the environment and protect water quality.

Objectives:

- Provide information on the Right-to-Farm Act and the following agricultural best management practices (BMPs) to farmers and other rural residents:
- Generally Accepted Best Management Practices (GAAMPS) from the Michigan Dept. of Agriculture,
- Michigan Agriculture Environmental Assurance Program,
- Conservation Tillage (no-till/strip till, mulch till, ridge till),
- <u>Nutrient Management,</u>
- <u>Pest Management,</u>
- <u>Conservation Buffers (field borders, filter strips, wind barriers and breaks, contour strips, grassed</u> waterways, riparian woodlands, etc.).
- <u>Irrigation Management,</u>
- Grazing Management,
- Animal Feeding Operation Management (placement and land application potential),
- Erosion and Sodiment Control (roducing exposure of soil, roducing velocity of soil transport, trapping sodiment, filtering sodiment).
- Conservation Reserve land,
- Contour Plowing, and
- Other related techniques.
- Encourage soil conservation organizations to work aggressively with farmers on education and implementation of these practices.
- Work with local conservation organizations to publicly recognize and thank farmers who are aggressively and consistently applying the above agricultural BMPs.

Open Lands Vegetation Management

Goal 15: The preservation or provision of open space and native vegetation helps retain the natural character of the land and reduces negative impacts of development on water quality. Open space should be encouraged on every site.

Objectives:

- <u>The Planning Commission and Zoning Administrator should provide published information on the water</u> <u>quality benefits of different open space vegetation type and management regimes to all applicants for</u> <u>zoning approval.</u>
- <u>The Planning Commission and Zoning Administrator should work collaboratively with agricultural and</u> <u>conservation organizations to protect local water quality.</u>

Water Quality Monitoring

Goal 16: The Planning Commission and Zoning Administrator will take advantage of opportunities to educate citizens, property ewners and other local government officials on the status of water quality and the values and benefits of water quality protection.

Objectives:

- <u>The Planning Commission will provide pamphlets and links to websites with information on Low Impact</u> Development and other best management practices for water quality.
- <u>The Planning Commission will periodically host public education sessions pertaining to land use planning</u> and zoning, as well as water assets in the community, water quality assessments, and water quality protection techniques.
- <u>The Planning Commission will encourage local schools to host experts in water quality protection and</u> involve K-12 students in analysis of water quality and implementation of BMPs to protect water quality."
- Initiate efforts and support efforts of others to education citizens and stakeholders about water quality trends, threats from peerly managed storm water runoff and other threats to water quality, and actions that can be taken by individuals and businesses to protect water quality.

- Initiate efforts in cooperation with the Drain Commissioner and conservation organizations to educate landowners and stakeholders about the potential benefits of various Low Impact Development techniques and other storm water management best management practices including but not limited to:
 - e Rain gardens
 - Bioretention
 - Constructed surface or subsurface filters
 - Wet ponds, retention basins
 - <u>Dry retention basins</u>
 - e Two-stage ditches/channels or naturalized ditches
 - Infiltration basins
 - Level spreaders
 - e Pervious pavement
 - Storm water planters
 - Vegetated buffer strips
 - Water quality devices (hydrodynamic separators and baffle boxes)
 - e Wind barriers and shelters

 - Stoop slope protections
 - <u>Natural feature setbacks.</u>

Drain Clearing

Geal 17: The Planning Commission and Zoning Administrator shall assist with the education of landowners about storm water runoff and its negative impact on water quality, along with measures that can be taken to minimize runoff and lengthen time between drain cleanings.

Objectives:

The Planning Commission and Zoning Administrator will:

- Work with the Soil Erosion & Sodimentation Control Officer, the County Drain Commissioner/Read Commission to promote education about, and the coordination of, drain maintenance activities with public and private landowners for the implementation of BMPs to reduce soil erosion and sedimentation of drains and other water bodies.
- Work with local conservation organizations to educate landowners about drainage methods that clear fields without causing sediment leads that close and dam.
- <u>Encourage local schools to host experts in water quality protection and involve K-12 students in</u> dissemination of information on ways to reduce seil runoff and benefits of proper drain maintenance on water quality.

Road & Bridge Repair & Stream Crossings

7

Geal 18: The Planning Commission and Zoning Administrator will inform landowners of the need for soil erosion and sediment control permits prior to disturbing any soil within 500' of a lake or stream, exposing more than an acre of soil, installing or reconstructing any bridge or culvert, or attempting to clean any drain.

Objectives:

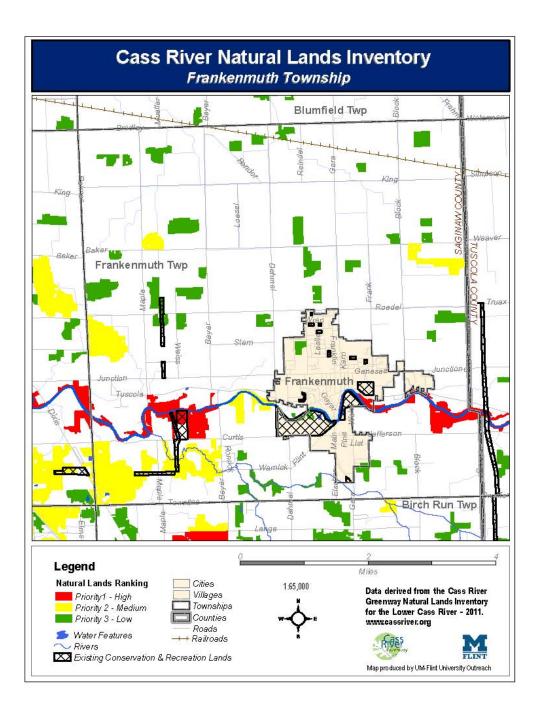
The Planning Commission and Zoning Administrator will:

- Work with the Soil Erosion & Sodimentation Control Officer, the County Drain Commissioner/Read <u>Commission to promote education about, and the coordination of read and bridge repair and stream</u> <u>crossing construction activities with public and private landowners for the implementation of BMPs to reduce</u> <u>soil erosion and sodimentation of drains and other water bodies.</u>
- Work with local conservation organizations to educate landowners about road and bridge repair and stream <u>Grossing</u>.
- Encourage local schools to host experts in water quality protection and involve K-12 students in dissemination of information on benefits of proper road and bridge repair and stream crossings that minimize negative impacts on water quality.

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NOTE: See Chapter 6 for a detailed description and map of proposed future land uses consistent with the policies in this Chapter. Chapter 9 describes the detailed elements of the growth management strategy necessary to implement the policies of this Chapter. The zoning plan in Chapter 10 lists changes necessary to each zoning ordinance to implement this Plan.



Map 5-1 Cass River Natural Lands Inventory

Chapter 6 – Map Changes Five Year Update - 2015

The below legend provides information on the modifications made to the Proposed 2015 Master Plan Map based on the Adopted 2010 Master Plan Map. There are three map designations defined below.

Changes = New designations as approved during the 2015 joint Master Plan Meetings.

Corrections = Based on this process, this category addresses a few corrections in the 2010 Master Plan Map.

Miscellaneous = Miscellaneous items that are not related to Master Plan uses.

I. CITY OF FRANKENMUTH UPDATES

A. Changes

1. Changes made in the Northwest quadrant of Section 23 (Main-Genesee-Block-Roedel square mile) based on the North Sub Area Plan approved by the joint Planning Commissions.

2. Residential classified parcels on the east side of the former Hubinger Street and on the west side of S. Haas Street, south of W. School Street to E. Tuscola Street, be changed from "Residential" (Yellow) to Light Industrial (Purple).

3. Residential classified parcels on the west side of S. Main Street, south of the Holiday Inn Express property be changed from "Residential" (Yellow) to Commercial (Red) at a uniform depth.

4. Three Residential parcels immediately west of the MI's Own Military & Space Museum be changed from Residential" (Yellow) to Mixed Use (Gray).

5. One Industrial parcel immediately west of Jellystone Park's two Commercial parcels be changed from Industrial (Light Purple) to Commercial (Red).

6. Change the future land use designation of 119, 121, 131 and 205 W. Jefferson Street (on the south side of W. Jefferson, between Covenant Drive and Main Street) and 209 List Street (southeast corner of List and Pine Streets) from "Residential" (Yellow) to "Mixed Use" (Gray).

7. Change the future land use designation of all Markt Strasse Site Condo Units (lots) with frontage on Heinlein Strasse from "Commercial" (Red) to "Light Industrial" (Purple). Note: Those lots that have Weiss Street frontage will remain "Commercial" (Red).

B. Corrections

1. On Park Drive, the area inside the horseshoe ball diamond should be changed to Institutional.

2. Residential classified parcel on the south side of Zehnder Park, east of the Scout Building and west of Kern's Sausage, be changed to Parks and Open Space (Green).

C. Miscellaneous

1. Updated City/Township limit boundaries and streets that were abandoned, etc.

II. TOWNSHIP OF FRANKENMUTH UPDATES

A. Changes

1. See note I(A)(1) above.

B. Corrections

None.

C. Miscellaneous

1. See note I(C)(1) above.

Discussions/Recommendations on the following:

1–Review the Industrial use of the former TSD Universal parcel and discuss whether it should stay that way or be changed to Institutional. Leave as is.

2 – Review the 36 acre Meyer parcel on the NE corner for Jefferson & Weiss Streets. Leave as is.

3 – The parcel at 250 W. Jefferson owned by Koesters, they have requested that it be designated Mixed Use. See I(A)(6) above.

4-The Mixed Use PUD parcels located on the west side of and fronting S. Main Street, south of Jefferson and owned by the Koesters, they have requested that they be designated Commercial. Leave as is.

5-All Markt Strasse Site Condo Units (lots) with frontage only on Heinlein Strasse be changed from Commercial to Light Industrial. See I(A)(7) above.

Chapter 6 EXISTING AND FUTURE LAND USE

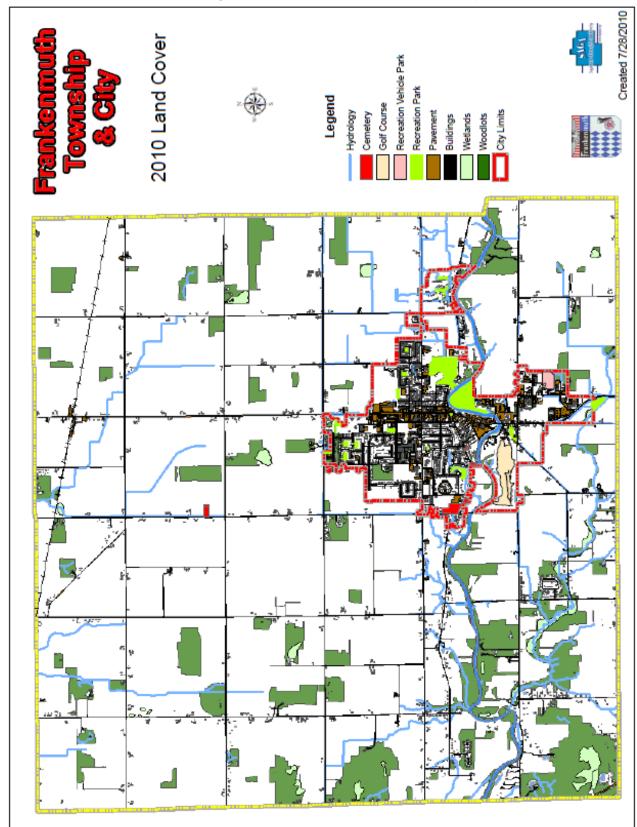
INTRODUCTION

This chapter describes how land is presently used within the Frankenmuth community and discusses how land is proposed to be used in the future by land use type, density and intensity of use, and subarea. The discussion of future land use includes the general distribution, location, and extent of the uses of land for agricultural, residential, commercial, industrial, institutional, recreational, and other land uses. Generalized existing land use is shown on Map 6-1. Future land use is illustrated on the Future Land Use Map, Map 6-2.



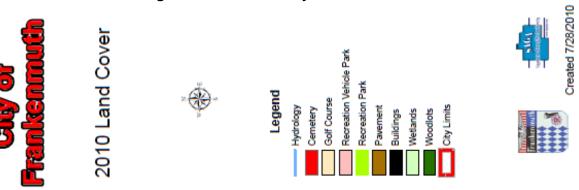
Photo 6-1 Land Uses in Frankenmuth

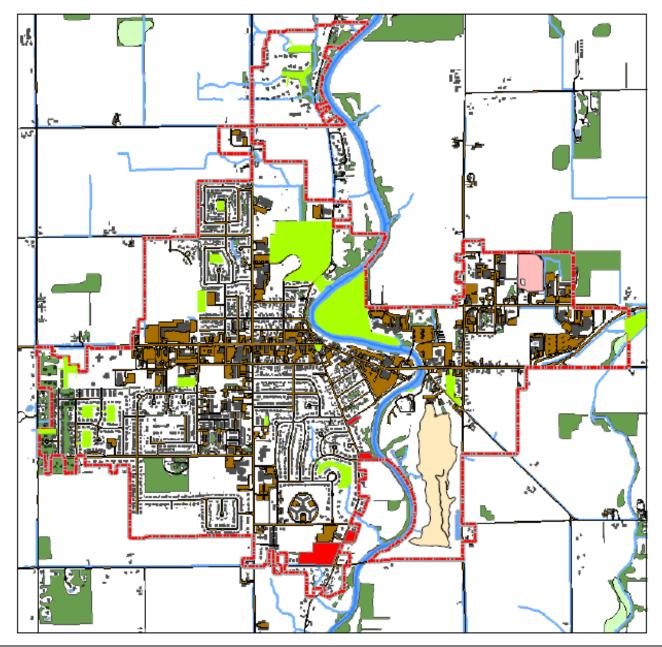
Map 6-1a Existing Land Use in Frankenmuth Township



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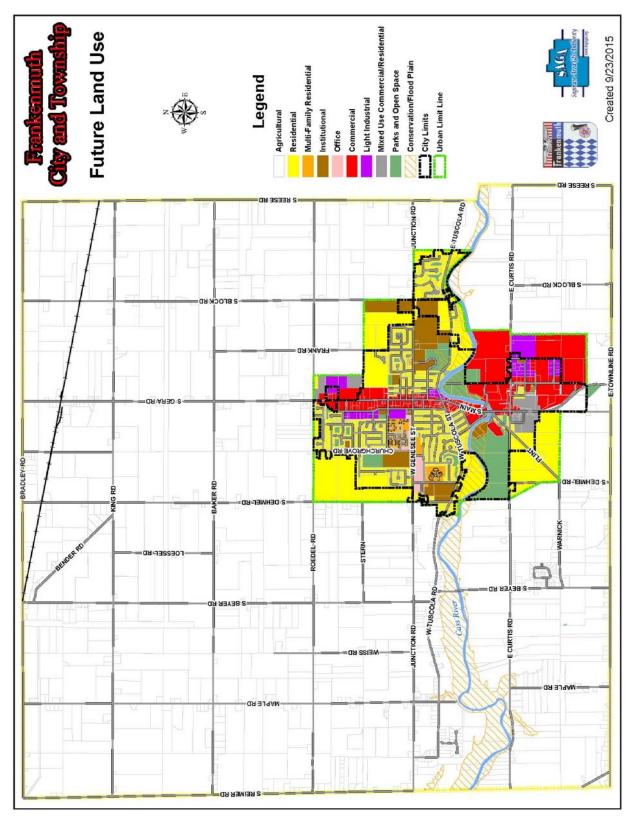
Map 6-1b Existing Land Use in the City of Frankenmuth





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Map 6-2a Future Land Use Map for Frankenmuth Township



45.5 MEA OUNTRY; LN= 3 HAAS VATES NICKLESS 800 GENESEE HAAS LEIN NKLEIN CMERF Legend City Limits Urban Limit Line Conservation/Flood Plain Agricultural Residential Multi-Family Residential Institutional IN ENSTRAS Office Commercial Light Industrial Mixed Use Commercial/Residential Parks and Open Space City of Frankenmuth **Future Land Use** Created 9/23/2015

Map 6-2b Future Land Use Map for City of Frankenmuth

LAND USE PATTERN

The current overall pattern of land use and activities represents one of the most efficient and aesthetic that any small community could hope for. Urban development is concentrated in an urban core. Commercial activity is concentrated on one major artery, and limited industrial development does not adversely impact surrounding land uses. Large institutional land uses and offices provide an open appearance and do not create major burdens.

A concentrated urban core and a distinct contrast between what is urban and what is rural is a community characteristic which has become rare in the U.S. urban landscape. This "green belt" characteristic provides the following advantages:

- 1. It reduces the cost of government by concentrating urban services and minimizing the degree to which rural residents are burdened with urban service costs;
- 2. It creates a uniquely aesthetic appearance which promotes the village character of the community and supports its Bavarian tourist commercial theme;
- 3. It provides closeness of open space for all residents;
- 4. It provides uncongested access to the community; and
- 5. It minimizes the interference of urban activities on efficient farming.

COMMUNITY CHARACTER

The Frankenmuth community has three distinct elements of its character. First is an extensive agricultural area that surrounds the City of Frankenmuth on all sides. Second is a compact small town with single family homes on tree lined streets surrounding a commercial core. Third, the commercial core has three major sub-areas. The first is a major tourist commercial area on Main Street south of Genesee Street that makes Frankenmuth a destination location and one of the largest tourist attractions in Michigan. It is largely built around a Bavarian architectural theme. The second is a local commercial area providing a mix of tourist and general commercial services. The community has strived to maintain quality residential areas adjacent to the commercial districts. The harmonious relationship between residential and commercial uses has helped to prevent sprawl and to promote pedestrian activity. The few institutional uses, office buildings, and industrial uses are designed so as to not adversely affect other land uses. The city and township jointly created an urban limit line in 1985 to confine and guide urban growth in order to retain the character of the Frankenmuth community. This line is described in detail in Chapter 9.

The Frankenmuth community sits upon very flat terrain, which has been beneficial to farming activities in the area. The Cass River enhances the aesthetics of the primary tourism center and the community as a whole where it is not blocked from view from the road. The river represents an underutilized point of visual attraction and recreation.

Serving as the center of local commerce for an area much larger than the township, the North Main Street local shopping area is also the gateway to the South Main tourist business district in Frankenmuth. Main Street is multifunctional and services a combination of pedestrian and automobile traffic. Main Street is also state trunkline M-83 and serves as the main point of ingress from the Birch Run exit at I-75. Genesee Street is the other major street within the city, and it runs east-west. Genesee Street is part of the Junction/Genesee corridor that serves as the main point of ingress from I-75 to the west and is mainly comprised of private office buildings, public buildings of the city and township, a parochial elementary school, and residences. Tuscola Street is another significant eastwest transportation route through the community. Land use along Tuscola continues to be residential, institutional, and rural in character. Jefferson Street/Curtis Road also provides an important east-west route for local traffic. Dehmel Road is a north-south road on the west side of the city that provides an alternate route from Junction/Genesee all the way to M-54/83 just east of Birch Run.

AGRICULTURAL LAND USES

With 17,388 acres of agricultural land, agriculture is the most prevalent land use in the Frankenmuth community. Almost all of the agricultural land is located in the township. There is approximately 4.5 times as much agricultural land as residential, which accounts for 3,848 acres. Soils in Frankenmuth Township are highly productive for agriculture and are especially good north of the Cass River due to a good system of drains and a higher water table. Land south of the Cass River is comprised of sandier soils and a lower water table. Moreover, the existence of woodland and swampy areas south of the river, hinder agricultural activities to an extent. Some small suburban subdivisions have also been developed south of the river in the southwestern quarter of the township.

Agricultural land in the township that is within the urban limit line will gradually make the transition to residential, commercial and industrial uses as necessary. Prime agricultural land to the north of the city should be preserved due to its good drainage and fertile soils.



Photo 6-2 Agricultural Land in Frankenmuth Township

RESIDENTIAL LAND USES

<u>Frankenmuth Township</u>. In most of the township, residential development is in the form of singlefamily homes on up to 2-acre lots and farmsteads. These areas have very low densities and are outside of the urban limit line; thus, there is no need for public sewers.

Currently, there is a residential cap in place in the A-1 and A-2 Agriculture Districts. According to the Frankenmuth Township Rural Zoning Ordinance, Section 802 (B) limited residential dwelling growth factor of one percent (1%) in A-1 District as existing in any year, and Section 902 (B) limited residential dwelling growth factor of two percent (2%) in A-2 District as existing in any year. (In 2004, this amounts to four new dwellings in A-1 and six new dwellings in A-2).

For many years, these quotas were not met. However, in recent past years there have been a few more requests than the quota. In these situations, a Frankenmuth Township Resolution adopted on June 12, 1990 and revised on December 17, 2001 states that "a random non-discriminatory selection" process conducted by the Supervisor be held to establish an order for their consideration...".

Land zoned A-1 within the township is found predominantly in the northern half of the township, north of the Cass River. There are some smaller pockets of A-1 land to the south and southeast of the city. Land zoned A-2 is located mostly south of the Cass River to the south and southwest of the city.

Most of the township land within the urban limit line (ULL) is planned to be developed as R-PUD, Residential Planned Unit Development. The desired minimum average density for residential development within the ULL is not less than three 3.5 dwelling units per acre. This is measured across the whole property and parts could be higher or lower than the average density as long as the overall density is at least three 3.5 dwelling units/acre. Each zoning ordinance would need to be amended to offer an incentive to increase density by 1-2 dwelling units/acre (to four or five dwelling units/acre on average), if there is a high quality design, per standards to be established in the zoning ordinance. The use of this incentive is especially desired on the east side near the schools in projects marketed to families with children.

Land within the urban limit line that is currently being used for agricultural purposes will be developed as the demand evidences itself and the land becomes available for development.



Photo 6-3 Rural Residential in Frankenmuth Township

City of Frankenmuth. In the urban core, residential neighborhoods are typically quiet and attractive, with adequate open space and minimal traffic. There is a healthy mixture of dwellings in a variety of ages and styles. Some housing for the elderly also exists. Residential uses in the city include singlefamily residential homes, duplex and two-family homes, attached and detached condominiums, and other medium-density multiple family dwellings. Most single-family homes are of medium density (3-4 dwellings per acre), are in well-organized subdivisions, and are predominantly owner occupied. In some areas within the city, older single family residential uses are integrated with multi-family and non-residential uses. Residential development in the city has been compact, keeping homes close to public facilities and keeping infrastructure costs low. The combination of compact development and mixing housing types contributes to the European character of the community.

Low density, single-family housing is primarily located east of Main Street both north and south of Genesee Street near the high school south past Tuscola Street toward the Cass River. There are some smaller pockets of low density residential west of Dehmel Road, in the northern section of the city along Churchgrove Road and in the southeast guarter of the city. Medium density, single-family homes are mainly found west of Main Street, between Genesee Street and Tuscola Street; along Genesee Street east of Main Street; and near the St. Lorenz Church and School at Churchgrove Road.



Photo 6-4 **Residential Neighborhood in Frankenmuth**

Multiple family housing, such as duplexes, condominiums, and apartments, is located north of the tourist center and on the west side of the city. Multiple family housing can be designed to buffer single-family residences from commercial areas.

All new residential districts that are annexed into the city will be zoned Residential Planned Unit Development. A PUD offers developers flexibility in design—projects may contain a mixture of housing structures and open space. It also provides the community the opportunity to review each project via the site plan review process. PUDs can enhance the Frankenmuth community by offering more open space and more variety in neighborhoods and housing.

COMMERCIAL LAND USES

Frankenmuth has two major commercial centers: 1) the pedestrian-oriented tourist-based commercial center is primarily located in the center of the city along South Main Street. This area has two distinct sub-areas somewhat separated from the rest: a) the Bronner's area near the southern border of the city at the junction of Main and Weiss Streets, and b) the Weiss Street/E. Jefferson Street elbow along Old M-83. 2) A local service commercial area on North Main Street north of Genesee Street, which includes the Bavarian Mall Shopping Center. These commercial districts stretch from the southern boundary of the city to the northern boundary, primarily along Main Street, and are minimally interrupted by noncommercial uses.

The aforementioned commercial areas are generally one of two types of commercial use: touristbased commercial and local commercial. In addition, Frankenmuth has office buildings primarily located along the West Junction/Genesee corridor.

Tourist-Based Commercial Existing Conditions

<u>City of Frankenmuth</u>. Much of the land used for commercial purposes in Frankenmuth is oriented toward service to tourists rather than local residents. The community's Bavarian motif and unique character have long been a tourist draw. The tourist-based commercial center includes major restaurants, hotels, specialty shops and retail establishments. Lodging is provided close to shopping areas and the restaurants. This area is characterized by pedestrian mobility and comfort, yet also supports traffic on a state trunkline. During festivals and peak use periods it is congested. Nearly all tourist-based commercial land uses are located on either M-83 or Weiss Street within the city limits.

The primary tourist-based commercial center in the City of Frankenmuth begins at the Cass River and extends north along Main Street across Tuscola Street and south to Jefferson Street. It is here that one will find the Bavarian Inn, Zehnder's Restaurant, the Chamber of Commerce and Visitor Center, the Frankenmuth Brewery gift shop, the Mill, the covered bridge and River Place. This area is the primary tourist center for several reasons. The hill on the north side of the river discourages pedestrian movement to the north. Moreover, it is the historical location of major hotels and restaurants. Just south of the river is Frankenmuth River Place, which has over 30 specialty shops and attractions targeted at tourists.

The rest of the tourist-based commercial land uses can be found from Bronner's at the southern border of the city along Main and Weiss Streets up to Jefferson Street. Bronner's is a major retail outlet and draws tourists on a year round basis.



Photo 6-5 Zehnder's and the Bavarian Inn

The adverse impact of tourist oriented activities is one of the most difficult kinds of externalities to control. This is, in small part, because tourism brings in non-residents who may not exhibit the same pride in the beauty of the local community as do local residents. These individuals may not cause as many spillover effects however, as do the vehicles they bring with them. Maximizing the beneficial effects of the tourism industry while minimizing the adverse impacts on local quality of life is essentially a function of attracting the right tourist market and properly controlling traffic and parking. Both are easier, however, if land use patterns are well organized. Frankenmuth currently experiences the advantage of a fairly concentrated tourist district. Keeping the tourist center as concentrated as possible has several advantages. They are: 1) it better serves pedestrian-oriented tourist businesses;

2) it makes the task of controlling traffic and other adverse spillover effects easier; 3) it facilitates better organized parking; and 4) it contributes to the Bavarian motif.

Future Tourist-Based Commercial Uses

Additional tourist-based commercial uses are proposed to be developed in the southeast corner of the city, near Bronner's and north to Heritage Park along Weiss Street. The commercial tourist planned unit development (CT-PUD) is the zoning classification for these uses. CT-PUDs are those which provide for the sale of goods and services to meet the general needs of out-of-town visitors, such as food, lodging, recreation, entertainment and travel aides. The purpose of the CT-PUD district is to permit flexibility in the regulation of land development and encourage innovation in land use and variety in design, layout, and type of structures constructed. Future tourist-based commercial uses are also planned in Section 26, near Jefferson Street and Weiss Street. This land is currently located outside of the city limits, but is located within the urban limit line.

There is a large undeveloped area south of Jefferson and east of M-83 and north of Bronner's. This area is well suited for a mix of tourist-oriented commercial uses and residential. The residential dwelling types should be selected to blend with existing residences. Across the street on the west side of M-83 should be similarly developed. If compatible designs were used, classic European style row houses may be appropriate, or first floor commercial with a residential on upper floors if there is a sufficient market. The Planning Commission will need to define appropriate standards and include them in the Zoning Ordinance before this area could be properly developed.

Local Commercial

Existing Conditions

<u>Frankenmuth Township</u>. In general, commercial uses are located within the city limits. However, some commercial uses exist in the township along west Junction Road, the main entry point into the city from the west via Interstate 75, including Bernthal Meat Market and <u>Grasel Graphics</u> Bavarian Builders. There is also a little commercial development and Star of the West has a grain elevator in Gera, on M-83 near the northern township border.

<u>City of Frankenmuth</u>. Local commercial uses are currently designated as highway commercial in the city's zoning code, but the actual uses are far more characteristic of local general commercial. Local commercial uses include grocery stores, pharmacies, banks, credit unions, automobile dealerships, drive-through restaurants and gasoline stations, and are currently located at the north end of the city along Main Street and, to a lesser degree, in the south end along Weiss Street. Such establishments serve both the local population and visiting tourists.

The Bavarian Mall contains a Kroger grocery store, Kroger fuel station, medical supply store, martial arts center, Hallmark store, Quality Dry Cleaners, Star Nails, Frankenmuth Travel, Hungry Howie's Pizza, Quest Diagnostics, and other retail establishments. Another pocket of local businesses is located south of Genesee Street but up the hill and north of the primary tourist area. Some of the businesses in this area, such as <u>Fenton Home Furnishings</u> the Oscar Rau Furniture Company are located on the fringe of the tourist area and benefit by attracting both local residents and tourists as customers.

Photo 6-6 Kroger at the Bavarian Mall



A separation of the tourist area from the local commercial area is natural, not only because of the difference in products and services, but also because of the competition for parking. Local residents desire to avoid traffic congestion during peak tourist periods and strongly prefer to have one shopping area which is not frequented by tourists.

Disadvantages result from a total separation, however, and advantages can result from integration of the local commercial and tourist based commercial in some parts of the business district. One advantage of better integration is the ability to tap a larger, more diverse market. This can increase the financial feasibility of more sophisticated specialty shops which then become a major attraction in themselves. Whereas a zone oriented primarily to tourists will have an overabundance of generalized gift shops, an integrated approach could support specialty furniture and clothing stores. These stores could add quality and diversity to the items available to local residents at the same time that they draw tourists. The potential of such an approach is greater in Frankenmuth than in other Michigan tourist centers because of its location within a major multi-metropolitan urban complex.

Future Local Commercial

As demand for additional local commercial <u>and light industrial</u> businesses becomes evident, additional local commercial <u>and light industrial</u> establishments should be located in the northern end of the city, north of the Bavarian Mall area along Main Street in Section 23. This area, on the eastern side of Main Street, is within the urban limit line which does not completely extend to Frank Road in Section 23. While there is a 15-acre tract along this section of Main Street owned by the city of Frankenmuth for job producing businesses, the front portion of the property could be used for commercial purposes under the current industrial zoning. The land located behind the commercial frontage, north of Schleier Street and behind the city-owned property on North Main, should be residentially developed and commercial development should not be allowed to extend into this area.

After months of study, the joint planning commissions utilized the final draft of the North Sub-Area Plan, dated December 9, 2014, and incorporated that plan into the City of Frankenmuth Future Land Use Plan located in Map 6-2b herein. It was agreed that commercial and/or light industrial areas which abut the current farmland located on the eastern half of the northwestern quadrant of Section 23, which may be residentially developed or planned for such future residential development, will be appropriately buffered and/or bermed from such commercial and/or light industrial development.

Across the street <u>West, in Section 22</u>, and behind existing commercial and office establishments is an area designated on the Future Land Use Map for <u>mixed blended</u> residential <u>and</u> commercial uses. This area should not mix commercial and residential in the same building, but instead should locate the commercial next to existing commercial/office and the residential next to existing residential with proper buffering and landscaping. The Planning Commission will need to work out the parameters for such a mix and incorporate into the zoning ordinance before such a mix could be authorized.

OFFICE LAND USES

<u>City of Frankenmuth</u>. Office activity in Frankenmuth is substantial and successful and is generally of three types: financial services, professional, and individual offices associated with commercial and industrial businesses. Office activity in Frankenmuth is primarily located along Genesee Street between Churchgrove Road and Mayer Road. The Frankenmuth Insurance Company is currently located at Mutual Avenue and Genesee Street and is one of the city's major employers. Other professional offices include medical and dental offices and legal offices. Many offices serving commercial and industrial establishments are typically found attached to those establishments rather than located in separate office buildings.

Because office buildings have been attractively built and well-buffered from surrounding residential areas, and because larger office buildings are located on major streets, the dispersal of office uses in Frankenmuth has not been a problem. Two advantages of this pattern have been to reduce parking shortages in the commercial center and to provide a greater ease of access. These benefits should guide future decisions to site office facilities.

<u>Frankenmuth Township</u>. Currently, no large office buildings exist in the township. However, Frankenmuth Insurance is considering relocating from Genesee Street to land it purchased on East Curtis Road just south of the Cass River and west of Dehmel Road. While relocation may not occur for several years, the property in question would be outside of the urban limit line. Development of this property would likely be considered as part of a 425 agreement between the city and township. Public Act 425, the Conditional Land Transfer Act, permits two or more local units to enter into a written agreement to "conditionally transfer" property for a period not to exceed 50 years for the purpose of an economic development project. The area transferred is subject to complete control by the receiving unit and the property is afforded access to the full scope of municipal services if an agreement is reached. Property taxes are usually shared between the city and township on such projects.



Photo 6-7 Frankenmuth Insurance

INSTITUTIONAL LAND USES

Institutional land uses serve a public purpose and include both public and private organizations. All buildings that are owned and operated by the city, the township, the school district, or other public organizations are part of institutional activities. The urban area of the Frankenmuth community has a large percentage of its total land area consumed in institutional uses. This includes large school grounds for public and private schools, churches, cemeteries and municipal facilities.

Public school buildings within the Frankenmuth School District are all located on Genesee Street, <u>east</u> of <u>Main Street</u> near the eastern border of the city boundary. These include List Elementary School, Rittmueller Middle School, and Frankenmuth High School. The district also operates the Wallace and Irene Bronner Performing Arts Center on East Genesee Street. A detailed description of Frankenmuth schools can be found in Chapter 7.

Religion has been a major influence in Frankenmuth throughout its history. <u>Many of Tthe five</u> churches in the community have deep histories. Churches and church schools are an important institutional use in the urban core in that they are connected to the community's heritage and character. St. Lorenz Church is located on West Tuscola Street, south of Genesee Street. Frankenmuth Bible Church is located on Churchgrove Road, north of Genesee Street. St. John's Lutheran Church is located on Genesee Street, at Block Road. Frankenmuth United Methodist Church is located on East Vates Street. Blessed Trinity Catholic Church is located on East Tuscola Street. The new Hope Community Church is located in a portion of the former Zehnder Chevrolet dealership on North Main Street and the newly established King of Kings Lutheran Church recently broke ground for a new church building on Covenant Drive. Located on West Tuscola is the Frankenmuth Township Cemetery and located on the Dixie Highway, north of Townline Road is Mt. Olive Cemetery. Both cemeteries are is jointly operated by the city and the township.



Photo 6-8 Bronner Performing Arts Center

The James E. Wickson Memorial District Library is located on Franklin Street at West Tuscola. It is easily accessible by the population and serves as a buffer between residential areas and busier tourist-based commercial areas. The Department of Public Works is located on Schleier Street and the wastewater treatment plant is located on Plant Street, south of the Cass River and west of Main

Street. There is one police station and one fire station within the City of Frankenmuth, located in the Public Safety Building on Genesee Street, west of Franklin Street, adjacent to the City & Township Government Center (formerly known as City Hall). Further information about existing and potential public uses in Frankenmuth can be found in Chapter 7.

INDUSTRIAL LAND USES

Existing Conditions

A small number of industrial land uses exist in the Frankenmuth community. Geographically, industrial activities are not concentrated in one particular area, but rather are dispersed throughout both the city and the township. Historically, within the urban core, industrial uses were mixed with commercial and residential uses. One such location is in the southeast guadrant of the city, near Weiss Street and Jefferson Street. This has not been problematic due to the high level of cooperation between merchants, industrialists, and residents and more industrial use would be welcome in this area. Some small manufacturing uses, such as the Frankenmuth Brewery, have incorporated these uses into the predominant use which is restaurant, tavern and gift shop to capitalize on their proximity to other commercial activities. Star of the West Milling Co., the largest industrial use, has operations on East Tuscola Street near Main Street and also operates the Grain Elevator at the northern boundary of the township in Gera. The City of Frankenmuth has purchased property on North Main Street south of Roedel Road for the future development of a business/office/high tech park. Esterline (Memtron Components) Technologies, a manufacturer of innovative user interfaces for original equipment manufacturers (OEM) products, is located in the northern section of the city along North Franklin Street. Additionally, Kremin, a new manufacturing facility, is now located in the Frankenmuth Business Park.



Photo 6-9 Memtron Technologies on N. Franklin Street

Future Industrial Uses

The city owned property on North Main Street is intended to be quality development used for new job producing businesses. High tech research, office, health care and, with proper design and buffering, light industrial businesses are desired here. This property will be developed according to restrictive covenants that have been prepared by the city and approved by the township. In addition, it will be important to require appropriate landscaping and screening to properly buffer this development from adjoining land to the east which is planned for residential use.

The portion of the former TSD property near the corner of Genesee St. and Main St. is being developed for commercial purposes. The balance of the former TSD property on Franklin St. has been acquired by the City for the City's future needs.

Other areas planned for new light industrial uses include portions of Section 35 and 26 on the southeastern part of the city. Any new industrial activities would be developed as an I-PUD, Industrial Planned Unit Development. This Growth Management Plan calls for no new heavy industrial uses. This Plan and the City and Township Zoning Ordinances would each need to be amended before a heavy industrial use could be located in either community. However, if adequate public facilities could be provided, Gera is a suitable location for additional agricultural-related industry, especially if railroad service is a part of the business.

PARKS AND OPEN SPACE LAND USES

Existing Conditions

There are currently 18 properties encompassing approximately 115 acres within the City dedicated as public parks. City parks are classified as mini-parks, neighborhood parks, or community parks. Classification is based on a park's size, service area, facilities, and user groups. More detailed information on parks and recreation can be found in Chapter 7.

Wooded Open Spaces

Open spaces allow residents to preserve environmentally sensitive areas, connect people to nature, and control urban growth. Additionally, open spaces provide an abundance of recreational opportunities for children and adults alike. The community has an abundance of privately owned woodland areas along the Cass River and trees are widely dispersed throughout the rest of the city. There are also scattered woodlands throughout Frankenmuth Township. These should be protected as land is developed in the future.

Future Parks and Open Space

The 2008 Frankenmuth Area Recreation Plan identifies a variety of opportunities for future park development. Through community surveys and meetings in the development of that plan, the most frequently mentioned types of future recreation facilities were a community recreation center, permanent soccer fields, pedestrian/bicycle trails, and access to the Cass River.

Dedicating bike paths along city streets, and along the river, will benefit both city and township residents. The new layout of Genesee Street with three traffic lanes and two bike lanes has worked well. Similar provisions for cyclists should be considered on other city streets throughout town. A pedestrian/bicycle bridge from the northern part of Heritage Park should be considered either northwest toward the Frankenmuth Brewery or due north across the Cass River. Eventually, another bridge crossing at Block Road would complete bike, pedestrian and vehicular access to all parts of the City for all citizens.

The Frankenmuth community has long held recreational opportunity as an important aspect of quality of life. Additional parks or open space along the Cass River would be beneficial to all residents. Non-motorized recreational trails along the river could connect with trail corridors on adjacent properties and enhance the regional system of trails. Enhanced pedestrian access to the river through greenways with trails will afford both citizens and visitors increased opportunities to enjoy fishing, canoeing, and kayaking. For more detailed information pertaining to parks, open space and trails, see Chapter 7.

The property on the west side of the M-83 curve, as one enters Frankenmuth from the south, has severe limitations for safe ingress and egress and provides a beautiful entry into the city. It should be

encouraged to be farmed for as long as possible. At the point in time the landowner chooses to stop farming, the city should consider acquiring the land or a conservation easement on the land if possible to ensure it remains permanent open space.

RELATIONSHIP TO LAND USES IN ADJOINING JURISDICTIONS

Following is a brief analysis of the existing character and proposed land uses in adjoining jurisdictions. See Figure 1-2. This analysis focuses on ensuring compatibility between land uses, particularly along jurisdictional borders. Typical examples of types of compatible land uses include:

- Similar density residential.
- Open space and residential.
- Agriculture and low density rural residential.
- Office park and residential or open space.
- Neighborhood commercial and residential with proper buffering.

Blumfield Township Existing Land Use

Blumfield Township is Frankenmuth Township's northern neighbor. It is rural in character and agriculture is the predominant land use. Limited commercial establishments are scattered throughout the Township. The Township has three unincorporated hamlets: Arthur, Blumfield Corners, and Frankentrost. Post World War II development has occurred linearly along Township roadways. Frankentrost, which shares a border with Frankenmuth Township, is presently zoned A-1 Primary Agricultural and A-2 General Agricultural/Woodlot. The A-2 district seeks to preserve the rural character of the area while permitting a gradual transition from agricultural preservation to more intensive uses without giving way to urban sprawl. These districts parallel those in Frankenmuth Township and limit the number of residential building permits that may be issued each year. There are no significant existing land use conflicts between land uses in Blumfield Township and Frankenmuth Township.

Future Land Use in Blumfield Township

The Township proposes that the most appropriate template for future development is the "hamlet." Concentric rings of development, arranged around the center of each hamlet will be used to guide future development. Outer rings will be developed only when 90% of the preceding ring is developed. Target dates of 2005, 2010, and 2020 are utilized for anticipated development. Four hamlets are proposed: Reese, Blumfield Corners, Arthur, and Frankentrost. Single family residential and neighborhood commercial is planned for the western outskirts of the Village of Reese and Blumfield Corners. Arthur is composed of two satellite hamlets, one for regional commercial businesses and the other for new industrial enterprises. Both satellites also plan for a mix of single family and two-family homes and will eventually merge together to form one hamlet. Single family residential development is planned for Frankentrost, but not until the first ring of the other hamlets is developed. There are no significant future land use conflicts between planned future land uses in Blumfield Township and Frankenmuth Township if land develops as planned.

Birch Run Township Existing Land Use

Frankenmuth Township's neighbor to the south is Birch Run Township. The existing land use in Birch Run Township is dominated by agriculture, with 62% of the land classified as farmland. While there is farmland in every section of the Township, the biggest concentrations are in the northeast quarter, from Dehmel Road to Reese Road, and the southern third of the Township. Single family residential covers 23% of the Township. There are a few small subdivisions with lots on internal streets off the county roads and state highways. Commercial development is concentrated around the Dixie Highway/Birch Run Road intersection and the Birch Run Road/Gera Road intersection. Along the

Frankenmuth Township border, land use is mostly agricultural, with a small number of single-family homes spread along Townline Road. There are no significant existing land use conflicts between borderland uses in Frankenmuth Township and Birch Run Township.

Future Land Use in Birch Run Township

Future land uses in Birch Run Township will be compatible with existing and future land uses in Frankenmuth Township if built as planned. The entire northeast quadrant of Birch Run Township is planned as open space/agricultural. A small pocket of low-density single family residential is planned just south of the Frankenmuth Township border, from Busch Road to Townline Road along Gera Road. Since this Plan calls for a permanent greenbelt around Frankenmuth, the less development along the border the better the transition and the greater the likelihood for successful implementation of the greenbelt. Limiting additional nonresidential development along M-83 from Birch Run Road north would also help preserve the rural character associated with the trip to Frankenmuth.

Bridgeport Charter Township Existing Land Use

Bridgeport Township, due west of Frankenmuth Township, has a diverse character. Near the Dixie Highway corridor, the Township is urban in nature. However, it also has many pastoral landscapes due to its abundant open spaces. Approximately 30% of the Township is devoted to agricultural operations. The northeast corner of the Township, which abuts Frankenmuth Township, is the most concentrated agricultural area and accounts for almost half of all farming acreage in the Township. The majority of residential development is strip development along the Section line roads, generally between 1/3 and 1 acre in size. Commercial development is mainly located along Dixie Highway, particularly west of the I-75 interchange area. Industrial uses are also generally located along Dixie Highway, with some smaller facilities located east of I-75. There are no significant existing land use conflicts between border land uses.

Future Land Use in Bridgeport Township

The foundation of the Future Land Use Strategy in the Bridgeport Township Plan is based on rural character preservation and encouraging the preservation of agricultural resources, while at the same time providing opportunities for a variety of new land uses in a purposeful and carefully managed manner. Land along the Cass River is planned to be a conservation area. A mixed use urban area is planned for the interior of the Township spanning from the northwest corner, which borders the City of Saginaw, to the southeast corner at Junction Road. Along the Frankenmuth Township border at Reimer Road, agricultural and low-density residential uses are planned in Bridgeport Township, which will be compatible with existing and future land uses in Frankenmuth Township provided there is no significant increase in the density of low-density residential uses. The most compatible residential development would be clustered with the open space on the Frankenmuth Township side.

Tuscola Township Existing Land Use

Tuscola Township shares the eastern Frankenmuth Township border. Agriculture is the principal land use in the Township. Cropland, pasture land, open space and woodlots represent 91.9% of the Township's total area, or 18,812.9 acres. According to the Tuscola Township Land Use Plan adopted in 1995, there were 14,383 acres of farmland enrolled in PA 116 in the Township. Existing commercial property is concentrated along M-15 heading northwest out of the City of Vassar. The predominant businesses are oriented to highway service uses. There are very few industrial sites in Tuscola Township. As of the 1995 plan, there were four industrial sites, none with access to municipal sewer or water. Rural residential development in the Township is a major land use and is expected to be the principal focus of new development in the future. Along the Frankenmuth/Tuscola border of Reese

Road are farm sites and scattered single family homes on large woodlots. There are no current incompatibility issues along the border.

Future Land Use in Tuscola Township

The future land use alternative selected in the Tuscola Township Plan provides for an area reserved for agricultural production, an agricultural/rural residential mix in certain areas, a mixed-use district around the community of Tuscola, low-density single family residential along the Cass River, medium-density residential development around the City of Vassar and for commercial development along M-15. Along the Frankenmuth Township border, planned land use is predominantly agricultural, except at the southwest corner of Tuscola Township, where land use is planned for an agricultural/rural residential mix. There are no significant border issues between Frankenmuth Township and Tuscola Township if land is developed as planned.

SUMMARY

There are no significant existing land use or planned future land use conflicts between land uses on the borders of the four townships which share significant borders with Frankenmuth Township. Since long term agriculture and very limited residential development is the only planned future land use in Frankenmuth Township on all borders with adjoining townships, the only way new conflicts would emerge would be if much higher density or intensity of development along the borders were to be permitted. Frankenmuth Township welcomes the opportunity to coordinate future land planning and development decisions so as to prevent conflicts with adjoining jurisdictions.

Chapter 7 INFRASTRUCTURE

INTRODUCTION

This Chapter discusses the community facilities, schools, utilities and transportation system of the Frankenmuth City and Township. It looks at present conditions and future needs.

The spirit of cooperation is a recurring theme in Frankenmuth government. From the early days, when church and government worked together, the Frankenmuth leaders have been able to form consensus governments. When the village was formed in 1904, the tax rolls remained in township possession. The village incorporated as a city in 1959, and operated by sharing some facilities with the township.

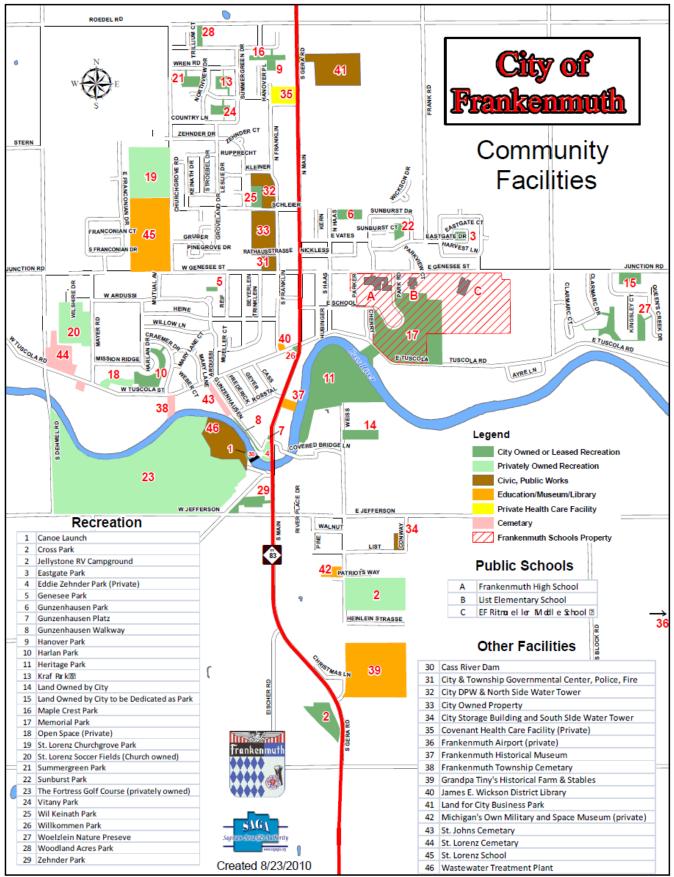
The township and city formed the City-Township Commission to oversee some of the services provided jointly. The Commission presently controls the Fire Department, the Frankenmuth Township Cemetery and the Public Safety Building. The two jurisdictions also cooperate in the provision of police services. The Frankenmuth City Police Department provides services to the entire township on a contractual basis. The township has a board member liaison on several city commissions.

This cooperative relationship is mutually beneficial. By pooling resources, the township can increase its service level, and the city, through joint funding or user fees, achieves an economy of scale which makes possible the provision of services at a lower cost.

The City & Township Government Center, the Public Works buildings, and the Library were all built during the 1970s. Their condition, like that of older facilities in the community, is excellent.

Map 7-1 on page 2 shows the location of various community facilities.

Map 7-1 Frankenmuth Community Facilities



City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan May 2015

MUNICIPAL FACILITIES AND COMMUNITY SERVICES

City & Township Government Center

The Frankenmuth City & Township Government Center (formerly known as City Hall) was built by the City in 1979, at an original cost of \$700,000. It is conveniently located at 240 W. Genesee, next to the Public Safety Building which was formerly known as the Frankenmuth Township Hall and Fire Station. See Photo 7-1. With its Bavarian motif, the City & Township Government Center fits in well with the community and nearby business district.

The building houses the city and township government offices, meeting chambers, a community room, Recreation Department and Downtown Development Authority. Personnel include: five full-time in the main office; two in the Recreation office; one in the Downtown Development Authority office.

In 2006 the police department moved into the former Township office and part of the rental hall area. The new office space is more than double the amount of space previously available to the police department. Personnel include seven full-time, <u>five</u> four part-time and 20 reserve police officers and one part-time administrative assistant. The remaining portion of the rental hall area was converted into a joint police and fire training room. The building at 218 W. Genesee Street is now designated as the Frankenmuth Public Safety Building.

The Township office was relocated to the second floor of <u>the City & Township</u> <u>Government Center in 2006</u> City Hall. The Township Supervisor (who serves part time) moved into the former parks & recreation office which is adjacent. The building at 240 W. Genesee Street was renamed as the Frankenmuth City & Township Government Center. A County Commission on Aging part-time employee provides noon meals to seniors on weekdays in the lower level of the building.



Photo 7-1 Frankenmuth City & Township Government Center

Public Safety Building

The Public Safety Building, a one-story brick building, is owned jointly by the city and township. It is located at 210 & 218 W. Genesee. See Photo 7-2. The Public Safety Building houses the Frankenmuth Police and Fire Departments, with space for fire fighting equipment. The Fire Department section of the building has been expanded twice three times in the past 25 30 years. The department currently utilizes seven six pieces of firefighting equipment. The fire station also includes a joint training classroom, a small equipment storage room, and restroom facilities.

The possibility of moving the Township Hall to a location outside the city has been discussed and the township has purchased property on Junction Road west of the city for possible construction of a new Township Hall.



Photo 7-2 Frankenmuth Public Safety Building

<u>Library</u>

The Frankenmuth James E. Wickson District Library was named after the city's first mayor, and built in 1974 with a gift from the Wickson estate, along with proceeds from a bond issue and private donations. It was designed in the Bavarian motif, and is located at 359 S. Franklin. See Photo 7-3. The library collection contains over 50,000 items. The library participates in a statewide catalog system, providing access to millions of items from hundreds of libraries throughout the state. A full-time librarian and several part-time library assistants manage the 14,400 square foot facility. The Library also provides computers for public use with access to the internet, professional and scholarly databases, and a full range of desktop applications.

In 2008 the City of Frankenmuth and Frankenmuth School District entered into an agreement to establish a District Library. The Library's service area includes all of Frankenmuth School District. In November 2008 the voters in the district approved a new .85 millage to cover the Library's operating cost.

The Library's Long Range Plan calls for an increase in the number of volumes available, improved computer services plus acquiring additional land in order to expand the building along with other programmatic and community service goals.



Photo 7-3 James E. Wickson District Library

Public Works

Despite the city's size, it performs many of the public works functions normally associated with larger urban governments. These include:

- Ice and snow removal.
- Sidewalk maintenance and repair.
- Monthly brush pick-up.
- Street repairs and resurfacing.
- Leaf pick-up.
- City tree program.
- City parks maintenance.
- Flower planting and maintenance.
- Minor building repair.
- Sanitary sewer maintenance.
- Stormwater management.
- Municipal water system maintenance.

The variety of vehicles and equipment under city ownership were stored in the open until 1975, when the city built a new Department of Public Works building. Its location at 216 W. Schleier puts it away from residences, next to an industrial district.

Today the DPW is housed in two enclosed buildings (12,800 sq. ft. heated and 4,400 sq. ft. unheated) and a pavilion storage building (5,000 sq. ft.) There is an additional storage building of 3,200 sq. ft. on List Street. There is outdoor storage at both of those sites as well as at the Waste Water Treatment Plant on Plant Street.

Water Works

The city purchases all of its treated water supply, from the City of Saginaw. The raw water source is Lake Huron from an intake at White Stone Point near Tawas. The city has two elevated water tanks. One is a 300 thousand gallon water tank at 416 List Street. The other has a 400 thousand gallon capacity and was built at the Department of Public Works complex on West Schleier Street in 1982. See Photo 7-4. Water use ranges from just over 20 million gallons per month in the winter to nearly 50 million gallons per month in the summer. Frankenmuth has a contracted capacity of 3.25 million gallons per day, compared with an average usage of 1.2 million gallons per day.

The water system supplies water to nearly 5,300 persons in the city and township. See Map 7-2. The system includes about 65 <u>73.41</u> miles of water main, ranging from 4" to 20" in diameter, 567 <u>669</u> fire hydrants and about 2,500 <u>2,757</u> water service accounts. <u>After studying other Community water supply sources for several years, in 2013 the City signed a 25 year water supply extension agreement with the City of Saginaw after <u>concluding that this source provided the best quality and most reliable product available.</u> Due to increased water rates and proposed changes associated with extending water service into new areas using water purchased from the City of Saginaw, the city is exploring alternative sources of water for the future. Alternatives under study include: a) troating water mains to connect into the Genesee County water system; and d) joining with Blumfield Township and constructing water mains to connect into the Bay County water system. Study results are not expected before late 2010.</u>

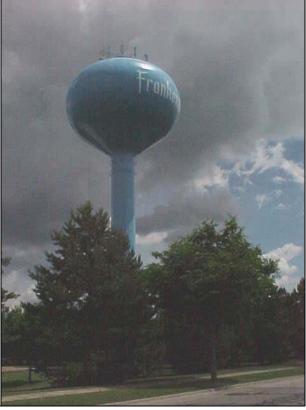


Photo 7-4 Frankenmuth Water Tower

Waste Water Treatment Plant

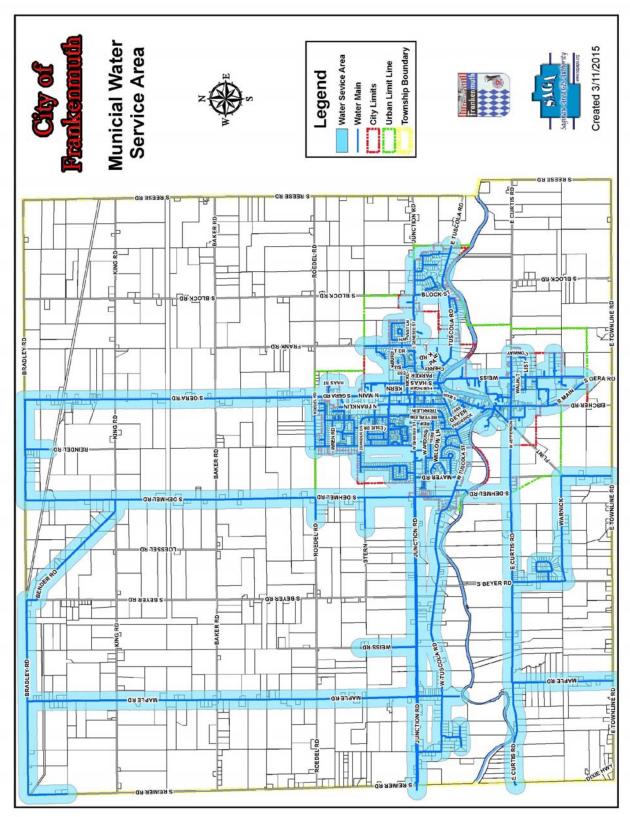
Located at 190 Plant Street, the City of Frankenmuth Wastewater Treatment Plant is tucked away near the Cass River dam, just across the river from the thriving Central Business District. It was built in 1954, and is operated by four full-time and two part-time city employees.

The facility treats wastewater using the activated sludge process. The combined storm and sanitary sewers that once fed into the plant have since been separated, alleviating a chronic flooding problem, and boosting the facility's capacity. A further increase in the plant's capacity resulted from a 1973 addition and expansions in 1987 and 1998. Larger raw sewage pumps, increased treatment capacity, new grit removal system, and redundant disinfection systems were added to increase hydraulic capacity. It currently provides secondary treatment to an annual average of 1.0 million gallons of wastewater per day, about 25% of its capacity of 4 million gallons per day.

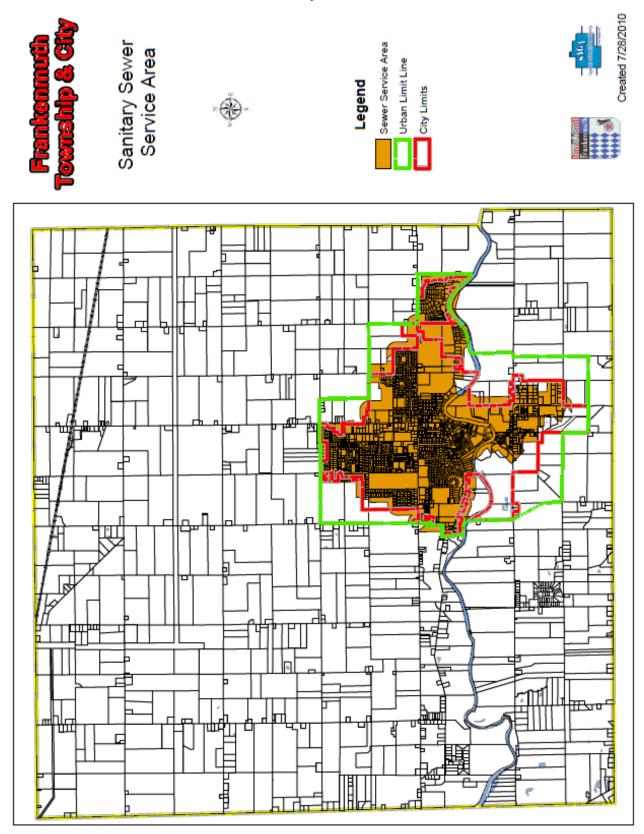
Presently, sludge byproducts from the treatment plant are spread on area farms as fertilizer, under a permit from the Michigan Department of Environmental Quality. All city residents have access to the sanitary sewer system (see Map 7-3). Expansions are not planned outside the urban limit line.

Stormwater is collected in much of the city by separate storm sewer pipes (see Map 7-4). This collection system is separate from the sanitary sewer waste collection system.

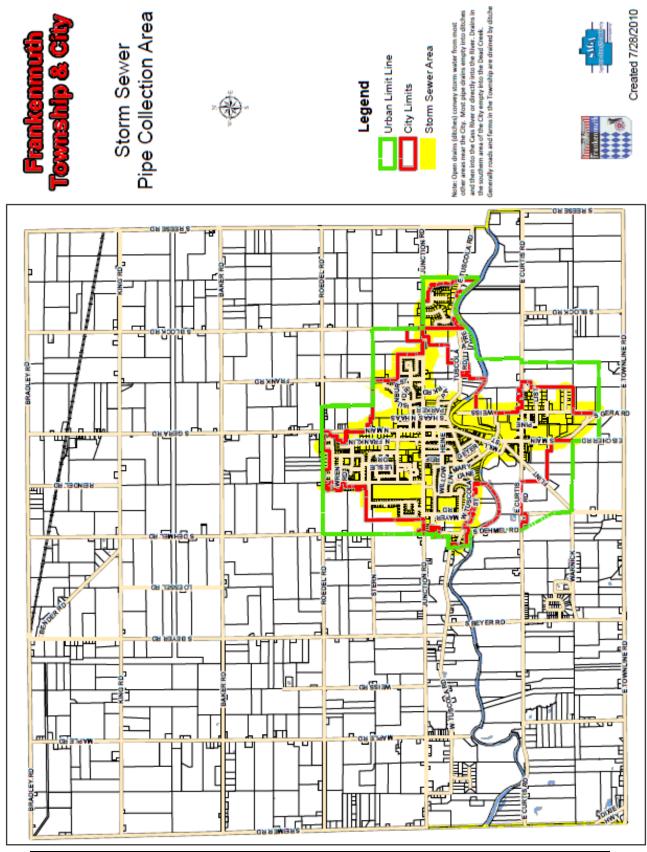
Map 7-2 Frankenmuth Water Service Area



Map 7-3 Frankenmuth Sanitary Sewer Service Area



Map 7-4 Frankenmuth Storm Sewer Pipe Collection Area



The Cass River Dam

The Cass River Dam was built in 1847, just two years after the arrival of the first settlers. It was made of timbers by the Hubinger brothers, who harnessed the waters of the Cass to power a sawmill. A year later, a grist mill was added, and the river provided the life-blood to two growing industries.

The Star of the West Milling Company later acquired the dam, and sold it to the city in the early 1950s. Beneath layers of concrete, the original timbers remain. In 2010, the dam is was not in good condition. See Photo 7-5.



Photo 7-5 Cass River Dam

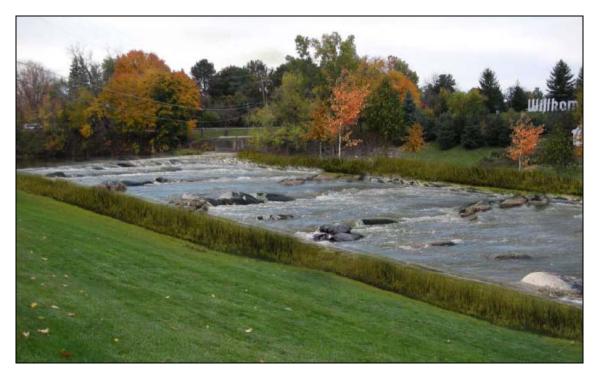
Rather than investing money in additional repairs, the City is investigating investigated options to redirect and redirected funding into a more sustainable project that retains the pastoral riverside scenery while meeting the needs of the commercial boating companies and enabling residents and visitors to enjoy water sports including kayaking and fishing.

Following a study in 2004 of dams in the Saginaw Bay Watershed, the <u>U.S. Army Corps of Engineers</u> <u>City looks to build is in the process of constructing</u> a fish passage project: with a constructed rapids also known as a rock ramp. Frankenmuth's Fish <u>Passage</u> Wish will open up 73 miles of historically significant fish habitat to migratory fish including walleye and lake sturgeon. (See Photo 7-6)

Regionally, the project has significant impact to the Saginaw Bay Watershed by providing spawning areas for natural fish reproduction and by supporting federal initiatives to de-list the Saginaw River/Bay Area of Concern of better use impairments related to loss of wildlife and fish habitat.

Locally, Frankenmuth's Fish <u>Passage</u> Wish not only improves the structural integrity of the dam, the project provides for an emerging eco-tourism industry through recreation. Eco-tourism is also called responsible tourism: protecting the environment, creating opportunities to educate the traveler, and directly benefiting the economic development of the local community.

Photo 7-5a Frankenmuth Fish <u>Passage</u> Wish Conceptual Drawing



As a key component of the Cass River Greenways initiative, the project opens up new markets for Frankenmuth's base industry: tourism. With the opportunity to sustain the existing economy, the project can seed opportunities for new entrepreneurial investments to support this new attraction. Construction for Frankenmuth Fish Wish is tentatively scheduled for summer 2011 underway and expected to be completed by the fall of 2015.

Museums

Frankenmuth Historical Museum

The Frankenmuth Historical Association has owned and operated this museum and gift shop since 1974. It contains original artifacts from the Frankenmuth area dating back to the Chippewa Indian occupation. A major renovation of exhibits occurred in 1995. The building itself dates back to the Frankenmuth's thriving hotel beginnings. It was built near the turn of the century, and was originally the Commerce Hotel. It is a red brick building, with a pillared porch and balcony, and is located at 613 S. Main. See Photo 7-6.

In addition, the Frankenmuth Historical Association operates the Lager Mill in the Nickless-Hubinger Mill. The Lager Mill store features craft beers from around the world, with a special emphasis on Michigan made brews. In addition, the store features Meads & Wines, locally produced Cigars and snacks, and authentic German clothing & imports, In addition, the Lager Mill Brewing Museum celebrates Frankenmuth's brewing tradition since the city's founding in 1845. The museum has rich history through photos, artifacts, video, and text. It also features a second floor gallery with over 2500 pieces of authentic German brewery glassware.

Photo 7-6 Frankenmuth Historical Museum



Michigan's Own, Inc. Military & Space Museum

Located at 1250 Weiss Street is another community asset unique to Frankenmuth: a military and space museum. It contains military relics, documents, and artifacts of U.S. military and space history, with a strong emphasis on the role of Michigan personnel. It also hosts traveling exhibits. The museum is open March through December. It is privately owned and operated.

Chamber of Commerce and Convention and Visitors Bureau

The Frankenmuth Chamber of Commerce and Convention and Visitors Bureau are housed in a Bavarian style building that was completed in 1978. The property is leased from the City of Frankenmuth. See Photo 7-7. The building, which sits at 635 S. Main has been combined with the original Water Works Building. It welcomes visitors with a tourist information center and public drinking fountain and restroom facilities.

The Frankenmuth Chamber of Commerce, and Convention and Visitors Bureau which began as the Merchants and Manufacturers Association, offers tourist information to visitors, and industrial and commercial location information to interested businesses.



Photo 7-7 Chamber of Commerce and Convention and Visitors Bureau

<u>Police</u>

The Frankenmuth Police Department provides police service to the public 24 hours a day, 365 days a year. The department provides uniformed patrol to deter crime by random and directed patrol of all areas of the City and Township—a total of 36 square miles. The department consists of a Chief, six full time officers, 4 <u>5</u> part time officers and 20 reserve officers.

The officers are trained in many concentrations featuring a detective bureau, evidence technician, crime prevention, surveillance, mountain bike patrol, and youth services. Specially trained officers are assigned to the County's Accident Reconstruction Team and <u>Tactical Emergency Medical Services</u> <u>Support Unit of</u> Saginaw's Emergency Services Team.

The patrol division is supported by a reserve unit staffed with volunteer police officers that patrol with full time officers, take calls for service, follow up on investigations and testify in court. Reserve Police Officers also provide police services at many of the City's major events some with over 120,000 people in attendance. The reserve officers ride as a second officer on a voluntary basis. This is usually at night on the weekends when both the volume and aggressiveness of calls increase. The Reserve Officers also work with the regular officers during the many festivals throughout the year.

The Frankenmuth Police Department is one of two departments in Saginaw County to have a Medical First Responder (MFR) Program. The officers are trained to render advanced medical aid, operate state certified patrol vehicles equipped with a complete array of medical equipment such as backboards, oxygen, jump bags with advanced first aid gear and A.E.D. units used to shock the heart back into rhythm. This program was implemented in 2009 and it has enabled several officers to be credited with life saving awards for their efforts to preserve the lives of those in need of emergency attention.

Other Police Department services provided to the Frankenmuth Community:

- Home vacation watch program: While residents are away, police officers will randomly visit homes to provide an exterior check to monitor for inappropriate activity.
- Firearm services: The department will register firearms and provide gun locks to all residents of the City and Township.
- Youth Services: The department has an officer assigned to the public and private school systems to assist in site security, mentoring and DARE/ TEAM Education programs.
- Police Cadet Program: Those students that are interested in a career in law enforcement may apply through an educational institution for the Police Cadet Program.
- Nixle System: Community Information Service designed to deliver important and timely information to Frankenmuth residents by delivering trustworthy and important public safety and community event notifications instantly by cell phone text message, email and web wire accounts.

Emergency Medical Service

Ambulance service is provided by Mobile Medical Response, Inc., (MMR) a non-profit corporation formed in 1994. MMR provides both emergency and non-emergency pre-hospital care and medical transportation. Emergency ambulance service is obtained by calling 911.

MMR provides service in eight counties in the Mid-Michigan area including Saginaw, Bay, Gratiot, Isabella, Clare, Tuscola, Arenac and Crawford. It also manages operations for losco County EMS. MMR's Medical Communications center dispatches ambulance service in six counties as well as dispatching FlightCare from St. Mary's Medical Center in Saginaw. Covenant Health Care in Saginaw also offers FlightCare services.

In addition to medical transportation MMR also provides several other services:

• MedConnection, a 24- hour Nurse Call Center

- Main Street Messenger Personal Help Alarms
- Membership Programs covering insurance deductibles
- Public & Corporate First Aid, CPR and AED Training
- EMS Training Facility offering MFR, EMT and Paramedic training
- Mercy Sales & Service for its subscription service.

MMR also sponsors and participates in numerous community events such as PRIDE, Camp 911, sporting event stand bys, Career Days, Safety Fairs and Fun Days.

The primary area hospital is Covenant HealthCare—Saginaw. It was formed in 1998 by the merger of Saginaw General Hospital and St. Luke's Hospital. It provides a variety of services and specialized care. Locally, Covenant HealthCare Frankenmuth, at 600 North Main Street, Frankenmuth, is a Med Express Urgent Care Center, and also provides imaging and diagnostics including Breast Imaging Center, mammography, x-ray, ultrasound, physical medicine and rehabilitation, laboratory services, family physician and speciality physician offices. St. Mary's Hospital in Saginaw also serves Frankenmuth.

Fire Department

The Fire Department operates on an all-volunteer basis. The department runs out of one station located at 210 W. Genesee Street in the City of Frankenmuth. See Photo 7-8. The station houses a meeting and joint training room, gear room, lounge, offices, joint kitchen, garage space for the department's <u>seven</u> six vehicles, and a hose tower. It consists of <u>approximately</u> thirty volunteer firefighters. The department receives joint funding through the City-Township Commission.

Current Fire Department equipment includes:

- Engine/Tender #1 1993 Spartan/Marion 2nd due engine 5 person cab 1,500 GPM pump 1,000 gallon tank 2014 Rosenbauer – 1st due engine – 6 person cab – 2,000 GPM pump – 2,000 gallon tank with dump chute – Hurst extrication tools – R.I.T. gear.
- Engine #2 2002 Pierce 1st 2nd due engine 6 person cab 2,000 GPM pump C.A.F.S. 1,000 gallon tank Hurst extrication tools Thermal imaging system R.I.T. gear.
- Aerial <u>Truck</u> #3 1997 Pierce 6 person cab 2,000 GPM pump 200 gallon tank 100 ft. ladder with platform – ventilation equipment.
- Squad #4 2008 Rosenbauer (GMC Chassis) Manpower squad/command center seating for 10 persons – command desk area – stabilization equipment – mobile air fill station – rehab area with refrigerator.
- Tanker Tender #5 1997 Ford/CSI 1,900 gallon tank 3 10" square dumps with extension chutes – 385 GPM pre-plumbed portable pump.
- Brush #7 <u>1997</u> <u>2005</u> Chevy 4 x 4 4 person cab Apollo 200 gallon slide–in unit with 225 GPM pump brush gear.
- Marine #9 2010 Mercury Heavy Duty 430-Hypalon boat with a 25 hp Evinrude E-TEC motor with trailer – water rescue gear and equipment.
- <u>Utility #6 2008 Polaris UTV 4 X 4 90 gallon slide-in unit with 100 GPM pump ability to haul</u> medical gear with a victim on a backboard, brush gear and fire equipment used during festivals and events.

Photo 7-8 Frankenmuth Fire Department Facility



The Department services 42 square miles which includes Frankenmuth City and Township. It also has a mutual aid agreement with every community in Saginaw County<u>, several in Tuscola County</u>, and a contract with Tuscola Township. There are 8,500 residents and over two million visitors a year who are protected by the Department. The Fire Department averages about 100 runs a year.

Cemeteries

The City-Township Commission is also in charge of maintaining the Township owned cemetery, 1.1 acres in size, on W. Tuscola Road and a 1.54 acre cemetery (Mt. Olive) on Dixie Highway, just north of Townline Road.

A cemetery owned by St. Johns Church is about 2.2 acres, and located on Tuscola at Gunzenhausen Street. St. Lorenz Church has a cemetery of 9.6 acres. See Photo 7-9. Blessed Trinity Catholic Church opened a new cemetery behind the church building on East Tuscola in 2010. Most burials in the community are in one of the church cemeteries or outside of the community. Burials in the Frankenmuth Township Cemetery cemeteries occur infrequently.



Photo 7-9 St. Lorenz Cemetery in Frankenmuth

Parks and Recreation

As with all communities, parks provide an important quality of life element for the residents of the Frankenmuth area. In contrast to many other communities, the parks in Frankenmuth also provide a key component to the tourism and business economy of the region.

Public and Semi-Public Recreation Facilities

The City features two large parks, Heritage Park and Memorial Park, two parks that honor the local heritage, Cross Park and Wilkommen Park, and more than a dozen smaller neighborhood parks. Heritage Park is the site of numerous festivals each year that draw thousands of visitors to the community. It features the multi-use Kern Pavilion and three ball diamonds which host many leagues and tournaments throughout the warm weather months. Memorial Park is home to the Palmer Schau Platz Band Shell and a disc golf course, both of which are also significant tourism draws. Both Memorial Park and Heritage Park provide access to the Cass River.

<u>The City is in the process of acquiring a 36 acre parcel of land at the northeast corner of Jefferson</u> and Weiss Street. The acquisition and future development will be done in cooperation with the <u>Frankenmuth Youth Sports Association</u>. This is being done to meet the demand for more outdoor <u>sports fields</u>, <u>particularly soccer fields</u>.

<u>The Frankenmuth School District provides limited open space and recreational facilities for the</u> <u>community. Features include gymnasiums, various sports fields, outdoor track, and playgrounds</u> <u>available for public use when the buildings are not in use for school district activities. St. Lorenz</u> <u>School provides similar facilities. Currently, St. Lorenz also provides land for the community's youth</u> <u>soccer fields north of the St. Lorenz church.</u>

Private Recreation

Several privately owned recreation facilities in Frankenmuth add open space, provide passive and active recreation for the community, and contribute to the overall tourism economy of the region. These include Frankenmuth Jellystone Park campground, the Fortress Golf Course, Churchgrove Park, Eddie Zehnder Park, and the Frankenmuth Adventure Park.

A recreation location map is included on the following page.

Parks and Residential Development

Parks have been an important element in the recent development of Frankenmuth. The master plans of 1963 and 1973 put forth the neighborhood park concept, in which each new major residential development dedicates park land to the city for the benefit of the neighborhood. This concept has been incorporated in the subdivision regulations of the planned unit development code, and the city has several neighborhood parks.

Recreation Planning

The Parks and Recreation function in Frankenmuth is overseen by an active 10-member Parks and Recreation Commission. It includes a representative from the Frankenmuth Township Board and the Frankenmuth Board of Education. Day-to-day management of the parks is handled by two full-time staffers and they are assisted by seasonal employees and volunteers.

The Parks and Recreation Commission maintains a joint five year Recreation Plan with Frankenmuth Township and the Frankenmuth School District. It includes a complete recreation inventory, goals and objectives, and a schedule of action items. It is useful for strategic planning and provides eligibility for the City and Township for State of Michigan Recreation Grants. The most recent plan outlines the following goals:

GOAL 1 – RECREATION PROGRAMS

Provide quality leisure time activities with special consideration given to activities improving health and fitness.

<u>GOAL 2 – FACILITIES</u>

Continue to improve Frankenmuth's recreational amenities to offer local residents and visitors facilities that inspire a sense of pride, are attractive, and are functional for a variety of uses.

GOAL 3 – PARTNERSHIPS & COMMUNICATION

Promote effective interaction, involvement and communication among the many entities involved in providing and using recreational facilities in the Frankenmuth community.

<u>GOAL 4 – DIVERSE OPPORTUNITIES</u> <u>Provide safe, broad, community-based recreation opportunities that improve the overall quality</u> of life for all residents of the Frankenmuth area.

GOAL 5 - CASS RIVER

Facilitate the public use of the Cass River and protect the peaceful, safe, and environmentally sustainable use of private and public property within the Cass River corridor.

<u>GOAL 6 – LAND PRESERVATION</u> <u>Retain public land for future generations.</u>

<u>GOAL 7 - TRAILS</u>

Provide trails and multi-use paths for recreational and transportation use.

In recent years the Parks and Recreation Commission has focused efforts upon planning and developing bike routes and walking paths in the community. A linked system of trails, paths, and sidewalks would provide healthful activity for residents and visitors and an amenity to boost tourism visits. This is discussed further in Chapter 8, Transportation.

Parks have been an important element in the recent development of Frankenmuth. The master plans of 1963 and 1973 put forth the neighborhood park concept, in which each new major residential development dedicates park land to the city for the benefit of the neighborhood. This concept has been incorporated in the subdivision regulations of the planned unit development code, and the city now has several neighborhood parks.

Prior to carly 1981, parks and recreation was under fragmented leadership. Memorial Park, Heritage Park, and overall recreation activities were run by three separate committees. January of 1981 brought the birth of the Parks and Recreation Commission, which consolidated the functions of the three committees under one organization. Since then, public recreation has been a priority in Frankenmuth government.

Photo 7-10 Palmer Schau Platz Bandshell



The Parks and Recreation Commission maintains a current five year Recreation Plan with the State of Michigan which is not only useful for strategic planning, but also enables the City and Township to be oligible for grant funding.

The City of Frankenmuth Parks and Recreation Department is administered by a 10 member Parks and Recreation Commission which is appointed by the Council. The Commission also contains liaisons with the township and the school district. The Parks and Recreation Department has two fulltime staff and numerous seasonal and part-time employees to assist with programs, maintenance and operations throughout the year.

The parks are well used by residents and visitors to the community. Due to the numerous festivals, ball tournaments and other large events that are held in parks, the parks are a vital asset to the business community as well as residents.

The residents of the Frankenmuth community have many parks to choose from, with recreational opportunities for all ages. Despite similarities in facilities, each park offers features unique unto itself. Table 7-1 lists the parks and recreation facilities in the community, their size and features. Most of the local park facilities are also included on Map 7-1. The following section briefly describes some of the major parks in the community.

Table 7-1 Frankenmuth Recreation Inventory

Recreation	Acreage	Ball Diamonds	Backothall	Football/ Soccor	Tonnic Courts	<u>Horseshee Pits</u>	Picnic Area	Playground Equipmont	Playfiold (opon)	Nature Hiking Trails	Waterfront Water Related	Shelter	Boat Launch	Rectroome	Peel
City Parks															
Wil Koinath Park	2.3						×	×	X						
Sunburst Park	1.4						X	X	X						
Genesee Park	0.4	X				X	X	¥	X						
Gunzenhausen	2.6						¥	¥	X						
Park															
Zehnder Park	3.0	¥	¥				¥	¥	¥			¥		¥	
Horitago Park	38.5	¥	¥	¥			X	¥	X	X	¥	X		¥	
Memorial Park	35.6			¥	¥	X	¥	¥	¥	X	¥		¥	¥	¥
Croce Park	4.1						Ì		X	X					İ
Summorgroon	2.0								¥						
Park															
Harlan Park	4.9								¥		X				
Vitany Park	1.7								X				¥		
Krafft Park	1.8								X						
Willkommon Park	0.1								X						
Woodland Acros I	1.1														
Weedland Acros	<u>2.1</u>								¥						
#	2.1								~						
Eastgate Court	1.3								¥						
Gunzenhausen	<u>2.1</u>						¥		-		¥				
Street Walkway	_						~				A				
Weelzlein Nature	2.4								¥						
Procorvo									~						
St. Lorenz	4.0								¥						
Secor Fields									~						
Commercial Recreation	11		1			<u> </u>	<u> </u>	11		1 1				I	1
River Place											¥			¥	
Frankenmuth River Beat Teurs											¥				
Frankonmuth Jollystone Park	18.9		¥				¥	¥	¥			¥		¥	×
The Fortress Golf	130.7										X				İ —
Courso											-				
Bavarian Bollo											×			X	1
Riverbeat											X			1	1
											- •			<u> </u>	
School/Somi Public	<u> </u>		<u> </u>			1	<u> </u>	11		<u> </u>		11		1	1
Recreation															
St. Loronz	24.5	¥	¥	¥				¥	¥					¥	
Elementary															
School															
Frankonmuth	56.8	X	¥	¥					X					¥	
High School															

Recreation	Acroage	Ball Diamonds	<u>Backotball</u>	Football/ Soccor	Tonnic Courte	Horeehee Pits	Picnic Area	Playground Equipmont	Playfiold (open)	Nature Hilking Trails	Waterfront Water Related	Sholter	<u>Boat Launch</u>	Rectroome	Peel
List Elementary School		×	¥	×				×	×					×	
Rittmueller Middle School		×	×	×					×					×	
Churchgrovo Park	26.0					¥	¥	¥	¥			¥		¥	
Regional/County Parks															
Bay City Riverwalk							X	¥		¥	X		¥	¥	
Bay City State							X	×		¥	¥		¥	X	
Recreation Area Crow Island State										v					
Game Area										¥					
Gratiot Saginaw										×					
State Game Area Green Point										¥				¥	
Environmental Learning Center (at Shiawassee National Wildlife										~					
Refuge)															
Haithco Recreation Complex	78.3		¥			¥	¥	¥			¥	¥	¥	¥	
Imerman Park	102.0	¥	¥		¥	¥	X	¥	¥	¥	¥	X	¥	¥	
Keit/Euclid Linear Park										¥					
Price Nature Center	186.0						¥	¥		¥		¥		¥	
Quanicassee Wildlife Area										¥	¥		¥	¥	
Ringwood Forost							¥			¥			¥		
Riverwalk and Central Parks							X	¥		X			¥		
Riverwalk/Rail Trail Loop										¥					
Saginaw Valley										×					
Trail Shiawassee River State										¥					
Game Area															
Shiawassoo National Wildlife	Over 5,000									¥					
Refuge Trelley Line Trail										X					
Votoran's Momorial Park							X	¥		*			¥		

<u>Cross Park</u>

Due to its location on Main Street just south of the city limits, Cross Park functions as a "gateway to the city". Its huge, reflective white cross, illuminated after dark, is a tribute to the historical tradition of the Frankenmuth community. The park was constructed for the national bicentennial, and the historic Welkensdoefer Log House was restored within its boundaries. Cross Park is about four acres of mostly level topography, with young pine and hardwood landscaping, and a backdrop of hardwoods and underbrush. A portion of the park is leased to the Frankenmuth Historical Association for use in its educational and historical programs.

Heritage Park

Heritage Park is Frankenmuth's most well-known heavily used park and home to many community activities, festivals and large events. Harvey E. Kern Community Pavilion is the newest addition and has become a focal point of the park. The park also features 4 picnic pavilions, 3 ball diamonds, playgrounds, sand volleyball courts, a basketball court, a Riverwalk pathway (0.9 mile), and several other facilities for festivals.

Starting in 1968, this property was acquired and developed into a community park. One of the main goals was to have a site that could be used for the largest festival at that time, the Bavarian Festival. Over the years, several more festivals and large events have come to Heritage Park and called it their home. This 35 acre park has become a major recreation area for the entire Frankenmuth community and is an integral part of the area's tourism business.

Just east of Frankenmuth's downtown business district, the park is located at the north end of Weiss St. (directions to the park) Bordered on three sides by the Cass River, Heritage Park boasts over 3,000 feet of river frontage.

Heritage Park is designed for active recreation, and as such, sometimes is the site of conflicting use patterns.



Photo 7-11 Harvey E. Kern Pavilion in Heritage Park

The ball diamonds are used 6-7 days each week throughout the summer by either league play or tournaments on the weekends. Thousands of Frankenmuth residents and visitors jam Heritage Park during the frequent festivals and special events, causing other activities to be postponed or moved to another site. Improved scheduling and/or plans for additional facilities should be considered.

The Parks and Recreation Commission recommends extension of paved walking paths, and renovation of aging facilities in the park. Another city street would be highly beneficial paralleling the

river to the east from Heritage Park and then crossing the river at Block Road is an important long term improvement for safety, access and traffic management reasons.

Memorial Park

The rolling topography, mature vegetation, and meandering brook make Memorial Park one of the most pleasant places in the park system. It is home to the Palmer Schau Platz (Band Shell) and the Rose Garden. The park also features tennis courts, horseshoe pits, picnic areas, playground equipment, a boat launch on to the Cass River, a disc golf course and a dog park. There are several picnic areas scattered throughout the park for families or small groups. During the winter, it is a popular place for sledding on the natural hills.

Photo 7-12 Memorial Park



Although Memorial Park does not attract as many out-of-town visitors as Heritage Park, its numerous passive activities and natural landscape draw a year-round flow of park users.

Memorial Park is located between Tuscola and Genesee, east of Main Street, and behind the schools. At 41.4 acres, it is the largest park in the system. It was developed after World War II to commemorate the people from the area that died in the war. Years later, an Indian Monument was erected to honor the area's indigenous Chippewa Indian population.

The Parks and Recreation Commission is discussing plans to add a pedestrian/bicycle path, parking and possibly renevate the beat launch on the Cass River in the near future.

Cass River Dike Levee

The dike <u>levee</u> affords excellent access to the riverfront for the pedestrian. It consists of an earth berm and concrete wall, and runs 2,000 feet upstream, and 1,000 feet downstream, from the Main Street Bridge. See Photo 7-5. The dike <u>levee</u> was built by the US Army Corps of Engineers but is maintained by the city. The city and US Army Corps of Engineers jointly perform an annual inspection of the dike levee.

The berm is an effective buffer between the riverbank and the busy parking lots to the west and north. It becomes a grassy ridge, sloping toward the river, with occasional trees that soften hard edges. Despite the fact that it is not formally included in the parks system, it is well maintained, popular with visitors, and in almost constant use. The future development of a trail system along the river should incorporate the dike levee as a key link.

Willkommen Park

This park is an urban plaza, less than one half an acre in size, with flagstone pavings, a small flower garden, and a grassy berm with shrubbery. See Photo 7-13. Five park benches invite pedestrians to rest awhile, and view the bustling streetscape. Willkommen Park also features a fountain and street lamp. Its location on the southwest corner of Main and Tuscola make it an ideal stopping place for pedestrians streets district. A veterans' memorial monument was constructed in Willkommen Park in the 1990s including a wall with names of area service men and women.

Photo 7-13 Willkommen Park



Eddie Zehnder Park (Privately-owned)

Eddie Zehnder Park is a pleasant open space on the west side of Main Street between River Street and the Cass River. It is an urban park of about 3/4 acre of land, with plenty of shade trees. It offers a resting place, and is the site of small-scale fairs, sales, and shows. It is privately owned.

Churchgrove Park (Privately-owned)

St. Lorenz Lutheran Church owns and operates Churchgrove Park, and it is the only large park site in the northwest quadrant of the city. It is a 26 acre community scale park, with campsites, playgrounds, pavilions, and meeting areas on flat, shady grounds. It lies on Churchgrove Road, south of Zehnder Drive.

St. Lorenz School is located immediately to the south of Churchgrove Park, and features its own indoor and outdoor facilities. It has a gymnasium with locker rooms, and a soccer field. See Photo 7-14. St. Lorenz School facilities receive less community-wide use than either Churchgrove Park or the public school recreational areas.

Photo 7-14 St. Lorenz Soccer Fields



Zehnder Park

Zehnder Park, located on the south side of town, is about 2.1 acres running from Flint Street to S. Main Street. Its facilities include a basketball backboard, playground equipment, and an open grass playfield. Zehnder Park is also home to the Scout Building which is used by local scouts for regular meetings and public groups as a facility for special events.

There are a number of smaller parks throughout Frankenmuth. These are listed in Table 7-1. Many are little known outside of the neighborhoods.



Photo 7-15 Frankenmuth Neighborhood Park (Wil Keinath Park)

Frankenmuth Jellystone R. V. Park (Privately-owned) 260 campsites are available to visitors at the Frankenmuth Jellystone R.V. Park. It is about 19 acres,

situated in the southeast area of the city. It offers visitors use of its indoor swimming pool, pavilion, shuffleboard courts, bathhouse and game room. Frankenmuth Jellystone R.V. Park is a privately owned for profit operation.

Frankenmuth School District Recreational Facilities

Through its involvement in sports, the Frankenmuth School District has constructed a variety of recreational facilities. The high school has an auditorium, a gymnasium, locker rooms, a football field, a running track, a practice field, and a baseball diamond. Bleacher seating is available for baseball, football, and gymnasium activities. See Photo 7-16.

List Elementary School has two baseball diamonds, a multi-purpose room, and a playground near Memorial Park. Behind the List Elementary School is the Kid's Kingdom Playground.



Photo 7-16 Sports Field at Frankenmuth Schools

Golf Courses (Privately-owned)

Golfers in Frankenmuth have access to a variety of courses within a short drive from home. In the southwest quadrant of the city lies The Fortress Golf Course, a privately-owned, eighteen hole course with a clubhouse on Flint Street. See Phote 7-17. Memberships are available, but it is open to the public.

Other golf courses in the vicinity include Clio Country Club, with an eighteen-hole course. Bridgeport has an eighteen-hole course named Green Acres, under private (open to the public) ownership. Vassar and Reese each have public courses as well. Vassar's is eighteen holes and Reese's is nine. The Timbers Golf Club in Tuscola has eighteen holes.



Photo 7-17 The Fortress Golf Course in Frankenmuth

Parks within the Multi-County Region

There are a number of parks, rail trails, wildlife refuge, game and recreation areas in Saginaw County owned by federal, state and county government and adjacent counties. Those listed in Table 7-1 are within a range of about 20-30 miles from Frankenmuth.

Federal Facilities

An important recreation facility in the Saginaw/Bay City region is the Shiawassee National Wildlife Refuge. It is located 25 miles south of Saginaw Bay. Known locally as the "Shiawassee Flats," the refuge manages easements on over 5,000 acres of privately owned land, plus numerous islands in Saginaw Bay and Lake Huron. It is also home to the Green Point Environmental Center.

State Parks

The lower Saginaw Bay area has few state parks located nearby. The closest one is Bay City Recreation Area in Bay County, about twenty miles north. It is a completely modern facility, with hiking trails, swimming, and good fishing on the Saginaw Bay. It is well within traveling distance to Frankonmuth.

Holly Recreation Area is located in northern Oakland County, over thirty miles south of Frankenmuth. It is a modern park situated in scenic, hilly surroundings. Hunting, fishing, horseback riding, swimming, and boating are all available on its grounds.

County Parks

Haithco Recreation Area

Located in northern Saginaw County, off I-675 near Tittabawassee Road, this park offers the only public swimming beach in the county with a 40 acre man-made lake. The park offers a lifeguard supervised beach, sand velleyball courts, beat rentals, playgrounds, fishing access, and modern restrooms. There are also five pavilions available for rent.

Imerman Memorial Park

About twenty-three miles northwest of Frankenmuth on the Tittabawassee River lies Imerman Memorial Park. It is 102 acres in size, and its facilities include tennis and basketball courts, softball diamonds, football/soccer and open play fields, playgrounds, interpretive trails, picnic area, boat launch, restrooms and cross country skiing.

Veterans Memorial Park

Veterans Park is a linear park of 35 acres running for a mile and a half along the Saginaw River seventeen miles north of Frankenmuth. It is primarily designed for sightseeing, and picnicking, and other passive recreational activities.

Price Nature Center

This is the closest and most accessible county park to Frankonmuth residents. It is located about twelve miles west of the city on Curtis Road. Since its acquisition in 1979, the 186 acre wooded park has been equipped with boardwalks, picnic facilities, and interpretive trails. Price Nature Center is within an hour or so bike ride from Frankenmuth, but a bike lane/trail would increase safety for those making the trip by bicycle.

Ringwood Forest

This 160 acre park is mainly natural woodlot, including some of Michigan's oldest forest plantations. There are three miles of trails throughout the park offering picnickers, nature lovers, hikers and cross country skiers towering pine forests, hilly terrain, and a cance launch on the Bad River. Ringwood is located 3 miles southwest of St. Charles.

Linear Parks and Rail-Trails

While there are a number of parks with nature trails and pathways, there are 10 linear parks or railtrails outside of Frankenmuth and within the region. These include:

- Clio Area Bike Path, in Clio, 5 miles paved.
- Flint River Trail, Flint, 12 miles paved.

 Frank N. Anderson Trail inside the Bay City State Recreation Area, 7.5 miles long, part paved, part crushed stone.

- Harger Line Rail Trail, 10.2 miles paved, from M-15/Richville to Buena Vista Township.
- Keit/Euclid Linear Park, 18 acros in Bay City, with a boardwalk through a wetlands.
- Riverwalk and Central Park in Saginaw.
- Riverwalk/Rail Trail Loop in Bay City, which is 9.5 miles long and paved.
- Saginaw Valley Rail Trail, which is 10 miles long.

 Shiawassee National Wildlife Refuge with woodland trail, 4.5 miles, and Ferguson Bayou Trail, 4.5 miles, west of Bridgeport.

 Trolley Line Trail, 20 miles from Flint to Saginaw, passing through Birch Run, about 6 miles developed.

Parks and Recreation Needs

While Frankonmuth residents report that recreation facilities are kept in good condition, and the area of parkland available virtually matches or exceeds national standards for the population, the following are perceived recreational needs.

Indoor Recreation Center.

- An indeer, community pool (perhaps as part of the Recreation center).
- Pormanent soccor fields.
- A pedestrian/bike trail along the river and connections to trails in other communities.

City of Frankenmuth and Frankenmuth Township Joint Growth Management Plan

May 2015 7-28 Access to the Cass River.

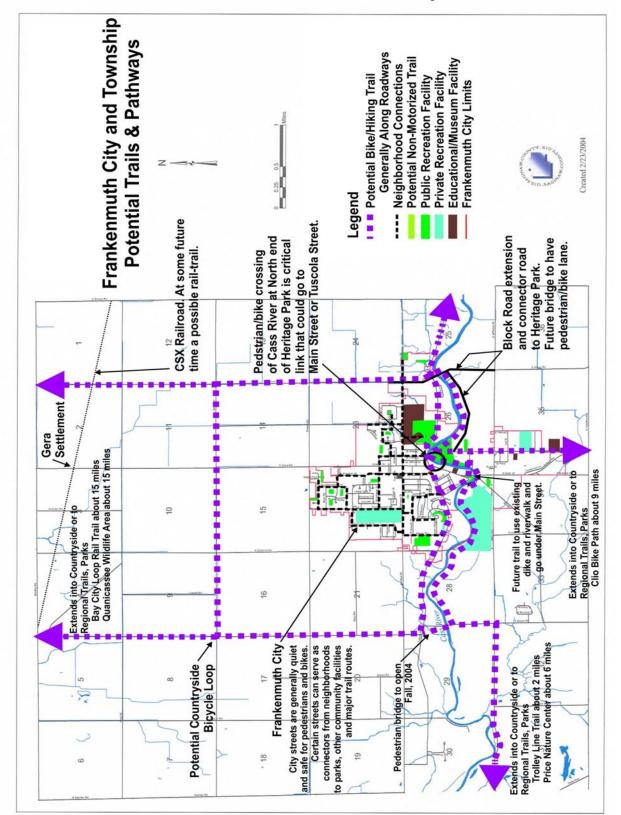
Trails

A linked system of trails, paths and sidewalks would provide healthful activity for residents and visitors and an amonity to boost tourism visits. This system could link downtown areas to residential neighborhoods, schools, Frankenmuth parks, the countryside and trails and parks within the region. Sidewalks could serve the downtown area, while residential neighborhood streets are quiet enough to use for biking.

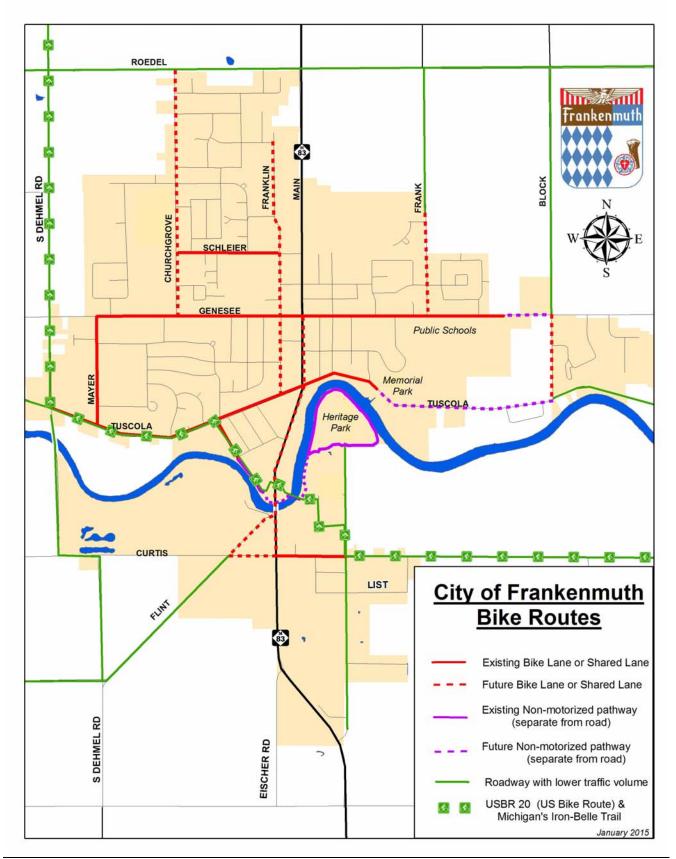
Expanded road paving to provide bike lanes on rural roads plus separated pedestrian/bike right-ofways could link Frankenmuth to the countryside and regional attractions. Some trails could be used for cross country skiing in the winter as well. The Cass River Greenway committee has developed a map of roads in the area that are best for biking. This map should be used in the planning of new routes in the area and renovating existing roads.

Germany was one of the first to develop bike paths and among the earliest to recognize that at least some separation of bikes and motorized vehicles was helpful. While the Germans construct some of their bike paths as completely separate trails, they more frequently employ the read right of ways for a bike lane along side automobile lanes. In Germany, special signs, traffic signals and in some circumstances, different pavement colors effectively route bicyclists. This latter approach could work in Frankenmuth, where read right of ways exist and separate linear rights of way could easily be identified. Bike lanes could be added to arterial and collector reads during repaving projects. Where new reads are constructed acquisition of right of way should include space for a separated bike/pedestrian trail.

Map 7-5<u>a</u> Potential Frankenmuth Trail System



Map 7-5b Potential City of Frankenmuth Bike Route Map



School System

Frankenmuth has had a long tradition of quality education. From the outset, settlers in the area were dedicated to providing an education to their children, while extending Christianity and basic education to the Indians. The schools were run jointly with the church until 1901, when the separation of church and state required an established system of public education. Parochial schools play a large role in the Frankenmuth education picture.

The public schools continued on a fragmented basis until 1946. That year, multiple school districts merged into a single, consolidated district. Today, the Frankenmuth School District covers 64 80 square miles, with a 2010 2014 enrollment of approximately 1320 preschool-12th grade students. Enrollment at St. Lorenz Elementary School in 2010 2014 was 490 approximately 510 preschool through 8th grade students.

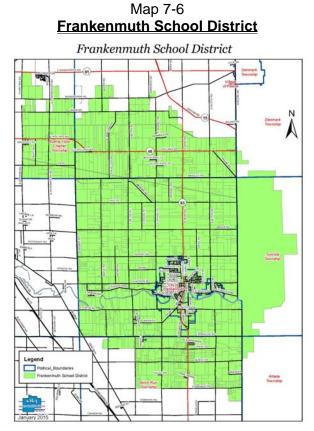
In 2013, the Buena Vista School District was dissolved by the State of Michigan and the Frankenmuth School District agreed to accept an additional 16 square miles of area in Buena Vista Township. See Map 7-6.

The performance of Frankenmuth School District students is high. Frankenmuth School District students consistently score above average on state and national tests compared to students estatewide as ovidonced by the MEAP Test, Explore Test, Michigan Merit Exam, and the ACT Test. Frankenmuth High School was recently ranked by U.S. News and World Report as the 4th best high school in the State of Michigan and 288th in the Nation. Frankenmuth School District students consistently score above average on state and national tests compared to students statewide. Frankenmuth has a higher graduation rate than about 93% of Michigan schools, with 99.2% of seniors graduating on time. The elementary, middle school, and high school are accredited by the North Central Association Commission on Accreditation and School Improvement. The Frankenmuth School district has been awarded AdvancED School System Accreditation from the AdvancED Accreditation Commission.

Frankenmuth schools receive operating revenue of $\frac{5,857}{2,086}$ per student from the state. This is close to the state average, while its local contribution of $\frac{22,086}{23,937}$ per student is comparable to the state average and higher than the peer school average.

Schools are also an important source of community recreation and culture. The high school provides 47 <u>19</u> interscholastic sports and numerous clubs and extracurricular opportunities for the benefit of both spectators and participants, for example.

The administrative offices are located in the Frankenmuth High School at 941 525 E. Genesee, and the three schools of the district are clustered nearby. Each facility is in excellent condition, and no new classroom facilities are planned for the next ten years as a building renovation and expansion project was completed on all school buildings in 2003. In November 2014, the community approved a five year, 1.5 mill sinking fund which will allow the district to make significant improvements in its infrastructure including HVAC systems, roofs, and parking lots.



Source: Saginaw County Intermediate School District

Lorenz C. List Elementary School

Built in 1961 at 805 E. Genesee, the List School has undergone two additions since. See Photo 7-18. It now has a capacity of approximately 500 students, with current enrollment at 446 in preschool through fourth grade.



Photo 7-18 Frankenmuth Lorenz C. List Elementary School

E. F. Rittmueller Middle School

The middle school is the newest of the facilities in the district. It was constructed in 1979, at 965 E. Genesee, and has had one addition since. See Photo 7-19. It houses grades 5-8, with an enrollment of about 337.





Frankenmuth High School

The high school is the oldest of the district's facilities. It was built in 1953, and has had three additions since. See Photo 7-20. It was built near the northwest entrance of Memorial Park, at 525 E. Genesee. Present enrollment totals about 539, while the design capacity is 800 students. High School enrollment is substantially higher than middle school enrollment due to the influx of students from parochial schools in Grade 9.



Photo 7-20 Frankenmuth High School

After the boom years of the 1970s, Frankenmuth's schools felt their share of the nation-wide declining enrollment problem. Typical of a state-wide trend, total enrollment is expected to decline for the next several years.

Despite decreases in enrollment, t<u>T</u>he district continues to innovate, initiating new programs which attract students of all ages. Frankenmuth School District provides educational alternatives through the Bay Arenac Skills Center, Millet Learning Center, Highland Pines School, Carrollton Post-Secondary Program and the Michigan School for the Deaf. In addition, several dozen Frankenmuth students take college classes through a Dual Enrollment Program. The Community Education program boasts large numbers of participants, hosts theater productions, and a variety of classes. Adult education opportunities in Frankenmuth are further enhanced through Delta Community College, Saginaw Valley State University, U of M Flint, Baker College, and Davenport University.

School Summary

The Frankenmuth School District offers a full complement of core academic courses, music, foreign language, arts, and AP courses.

As a small district it is also more susceptible to swings in enrollment caused by changes in population characteristics. As such the district's resources and stability are critically influenced by the type of physical development that takes place in the community in the future. A community plan which restricts the entrance of young couples into the community housing market could exacerbate the tendency toward declining enrollments.

Post-Secondary Education

Concordia University established an off-campus center in Frankenmuth for post-secondary educational courses. All coursework is offered in accelerated format. Concordia University programs are offered in partnership with Concordia University Wisconsin.

Other Quasi-Public Facilities

The city and township are served by a normal complement of telecommunications, electric, telephone, natural gas, and cable TV services. Perhaps most significant for the future however, is the fact that Charter Communications, the cable TV company, offers high speed internet service, as does Air Advantage, a wireless company with a transmitter on the top of the Star of the West flour mill. In addition, AT&T offers high speed internet access through the telephone system <u>and their new U-verse</u> Video Service Local Franchise Agreement was adopted by the City Council in 2014 and available in the western portion of the City with complete coverage for all of the City pending installation. Having multiple internet providers is important to ensuring competition and the best available internet access. Since the importance of internet access in the future will only grow, maintaining quality internet service will be essential to long term community viability.

COMMUNITY FACILITIES CHAPTER SUMMARY

Many problems that normally plague communities in the provision of services and their associated facilities revolve around high costs of maintaining rapidly deteriorating physical plants. The like-new condition of most Frankenmuth facilities gives the community an important edge in reducing costs. Most facilities are also adequate in size to facilitate future population growth.

Although total park space is adequate, conflicting demand for key park space in Heritage Park is an issue which must be resolved. Demand for recreational programs and facilities not yet provided such as an indoor pool and skating rink is also outstripping facility capacity. A community-wide trail system and improved access for pedestrians, bicycles and vehicles to Heritage Park area are also important facility improvements for the future.

Chapter 8 TRANSPORTATION

INTRODUCTION

This Chapter examines regional and local circulation patterns on major roads and city streets. Traffic counts, crashes and previous traffic studies are examined to identify needed future road improvements. Non-motorized, transit, air and rail transportation issues are also examined.

On August 1, 2010, the Governor of Michigan signed Act 134. This act amended Public Act 33 of 2008, pertaining to local land use planning. Specifically, it recommends that if a Community Master Plan contains a chapter pertaining to streets, then that section should be expanded to consider all elements of transportation that can serve the community.

This chapter evaluates how various modes of travel serve the community as one of the State's popular tourist attractions. Therefore, in accordance with PA 134, this chapter is expanded to cover the subjects of pedestrian and bicycle travel in and throughout the community. In so doing it assesses the community's effort to create what is known as "Complete Streets". However, as a base, one must first examine the existing and proposed street system and analyze how it serves the community.

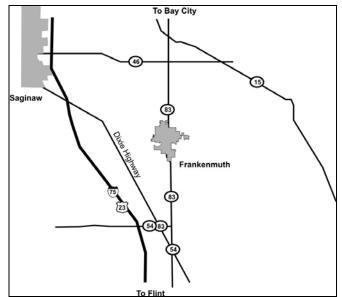
REGIONAL CIRCULATION PATTERNS

Frankenmuth is a destination for hundreds of thousands of visitors each year. <u>This fact</u> makes it necessary to establish a picture of how the network of State Highways serves the community. Because of the importance of rubber tire transportation in America, I-75 is the community's link to the rest of the country. I-75 passes six miles west of Frankenmuth and is the major north-south corridor in the state of Michigan and continues south through five states to Florida. It connects the state's major metropolitan center, Detroit, to the state's northern Lower Peninsula and Upper Peninsula. In <u>2013</u> Average Daily Traffic (ADT) recorded by the Michigan Department of Transportation (MDOT) was <u>58,720</u> vehicles on I-75 near the Frankenmuth area. This is up from <u>52,300</u> in <u>2009</u>.

I-75 <u>accesses</u> many Michigan residents to the recreational areas of Michigan which offer camping, skiing, and boating area. The importance of this route for recreational travel is reflected in the summer weekend volumes. From <u>May through October June through</u> <u>November</u>, I-75 Friday and Sunday traffic volumes at Birch Run, range from 90,000 65,000 to as high as <u>100,00-</u> 95,000 vehicles per day, or nearly double the average daily traffic. <u>History has shown that</u> over 50 percent of the weekend volumes on I-75 exceed the weekend volumes of US-127 north of St. Johns, US-131 north of Howard City, and US-31 north of Hart, combined.

Another major component of the regional traffic pattern affecting Frankenmuth is M-83. In conjunction with M-15, a four lane, divided highway, to the north, and M-54 to the south, M-83 connects Bay City and the "thumb" region of Michigan to Flint and points south. See Map 8-1. M-83 is a major part of Frankenmuth's transportation system,

connecting the north and south sides of the city. In 2002, 2013, the Average Daily Traffic (ADT) on M-83 north of Frankenmuth was $\frac{6,200}{5,960}$ vehicles. The ADT south of Frankenmuth on M-83 was $\frac{8,540}{200}$ vehicles. The link of M-83 that connects to I-75 at Birch Run had an ADT of $\frac{10,640}{200}$ vehicles



Map 8-1 Frankenmuth Area Highways

Graphic by Planning & Zoning Center, Inc.

Another major road near the City of Frankenmuth is Dixie Highway. It is a county primary road which parallels I-75 between Flint and Saginaw. Dixie Highway does not directly enter Frankenmuth, but in combination with Junction Road, provides Frankenmuth with another access to I-75. does provide local access to the two nearby cities. Because the various local jurisdictions have not effectively controlled development along the Dixie Highway, it is characteristic of strip commercial, sprawling development with a combination of high speeds and continual left-turning traffic.

Although M-46 is another route that does not pass through Frankenmuth City or Township. It is an important regional artery affecting the community because it provides access for many Frankenmuth commuters to major employers in Saginaw and adjacent Buena Vista Township, as well as access out into Michigan's Thumb area. M-46 runs east and west through Blumfield Township to the north of the Frankenmuth community. It is a two-lane highway until just east of Towerline Road in Buena Vista Township.

INTERSTATE INTERCHANGES

Frankenmuth's link to the outside world is primarily through two interchanges to I-75, neither of which is within the boundaries of either the city or township. One interchange is at the beginning of M-83 in the Village of Birch Run. The route from the interchange to the population center of the Frankenmuth community is approximately 8 miles. Although several routes are possible from the interchange to Frankenmuth, most roads connecting them are rural in nature and not designed for heavy traffic.

The only route designed to carry heavy traffic between Frankenmuth and the

interchange is M-83. The pavement along this route is two lanes of 12' widths and an adequate shoulder. The surface is in good <u>fair</u> condition.

Although a substantial amount of poorly controlled development has been built around the interchange itself causing some congestion and <u>traffic conflict</u>, the remainder of the route is not badly congested. Access management and development controls to assure that this route does not become congested do not exist however, at either the state or local level. The Dixie Highway also connects the Birch Run interchange and the extreme western edge of Frankenmuth Township. <u>Congestion has become more prevalent on weekends when west to southbound traffic backs up on M-83/Birch Run Road, often to points west of the M-83/Dixie Highway intersection. Often times it takes a minimum of 5 signal changes before a motorist can reach the entrance to the southbound entrance ramp onto I-75.</u>

Focus Issue: For the benefit to visitors to Frankenmuth and to the Prime Outlet Mall, the City of Frankenmuth and the Village of Birch Run need to meet with representatives of the Michigan Department of Transportation and the Saginaw County Road Commission to determine if additional ramp access is achievable at the existing interchange or possibly at Burt Road.

The second most important interchange to Frankenmuth is the junction of I-75 with the Dixie Highway in Bridgeport Township. Access from Frankenmuth to the interchange is via Dixie and Junction Roads. Because Junction Road lies primarily within Frankenmuth Township, development along it has been well controlled such that access remains relatively clear, safe and attractive. With 8,500 vehicles per day, many view M-83 as the primary route by tourists and commercial vehicles to enter the community. However, the Dixie Highway/Junction Road corridor accommodates nearly an equal volume at 6,900 vehicles per day. Much of the volume is comprised of commuters between the City and the Saginaw-Bay City area. Unlike M-83, Dixie Highway is in poor condition which can only be resolved with complete reconstruction. As a former state highway, Dixie Highway is now under the jurisdiction of the Saginaw County Road Commission (SCRC), and needs near term, (within 5 years) attention.

FOCUS ISSUE: The Saginaw County Road Commission has nearly 1,850 miles of road to maintain, many of which are in urban townships. The 1.7 miles of Dixie Highway, that is of concern, lies within a more suburban or rural setting and may not be viewed as serving a significant need. However residents of Bridgeport and Frankenmuth Townships along with residents of Frankenmuth are daily impacted by the condition of this segment of roadway. Therefore, as a short term goal, (within 5 years), the City and the Townships need to collaborate with the Saginaw County Road Commission on how to fund the reconstruction of Dixie Highway. This effort should also include local and state elected officials along with the Saginaw Metropolitan Transportation Study (SMATS), in researching funding sources that would advance the reconstruction of this roadway.

CIRCULATION WITHIN FRANKENMUTH

The Frankenmuth community is fortunate in that heavy traffic has been concentrated on just a few major arteries. For the most part, all other streets and rural roadways are quiet and uncongested and receive minimal wear and tear. This situation adds to the livability of residential areas, makes farming easier and reduces the cost of road maintenance to

local governments. Within the city, traffic has remained on major arteries because: 1) diagonal and curvilinear street patterns on side streets contrasted with straight traffic flow on major arteries has discouraged through traffic and out-of-town traffic from using side streets; 2) the river and the limited number of bridges (2) crossing the river have directed traffic onto major arteries; 3) signs indicate only one route to tourist destinations from I-75; 4) there is no alternative for tourists traveling within town to get to and from attractions (I.e. shuttle bus, pedestrian/bicycle trails).

Road Classifications

The City of Frankenmuth and surrounding area is serviced with a network of streets and roads. That network channels traffic to and from its origin and destination within or without of the City. The network provides various levels of land use within the community and are designed to service that land use based on driver demand or the level of activity associated with the land use.

Nationally the Federal Highway Administration has developed a functional classification of streets and roads that define the nature of the road system. The classification of the road system in an urban area like Frankenmuth is comprised of four categories; Principal Arterials, Minor Arterials, Collector Streets and Local Streets.

Principal Arterials:

Principal Arterials are those routes which interconnect a community with surrounding communities, carry higher volumes of traffic and are designed for higher speeds. Frankenmuth is serviced with two Principal Arterials; M-83/Main Street and Genesee Street/Junction Road.

Minor Arterials:

Minor Arterials are those routes which generally connect with Principal Arterials or with other Minor Arterials and penetrate the community. Minor Arterials generally service more localized traffic and are likely to be of a lower design and travel speed. Minor Arterials within the City of Frankenmuth include; Dehmel Road, Roedel Road, Block Road, Tuscola Street/Road and Curtis Road/Jefferson Street.

Collector Streets:

Collector Streets usually facilitates the movement of traffic from local or subdivision streets onto Minor Arterials and then to Principal Arterials. However, land use along collector streets may be of such a nature that a collector provides a similar function as a minor arterial. One of the differences, however, is the length of the street within the community as the collector street does not completely penetrate the community. This means that many motorists traveling within the community must follow the hierarchy of the system in order to reach a specified land activity on a collector street. Collectors within the City of Frankenmuth are; Franklin Street, Churchgrove Road, Mayer Road, Gunzenhausen, Weiss Street, Schleier Street.

The remaining street system within the city is classified as City Local Streets.

General Street Design:

As the city's classified streets ascend from the Local Street to the Principal Arterial there is an increase in volume which requires consideration of street width, number of lanes, parking and provisions for non-motorized use.

Local Streets:

Local Streets need to provide for two way traffic and direct access to abutting land use which in most instances is residential. The minimum desirable width should be 22 feet, or two- eleven foot travel lanes with curb and gutter. At this width, on street parking should not be allowed as parking will restrict the street to one travel lane and could, on occasion impede use by emergency vehicles or large commercial vehicles needing access for residential deliveries. If on-street parking is deemed as necessary due to lot size, limited building setback or a special use, then street width should be wide enough to allow parking on one side of the street plus two lanes of travel. The street width under this scenario should at minimum be 28feet. This provides 8 feet for a parked vehicle and two – 10 foot lanes to travel. Non-motorized use under either circumstance is allowed on the street and generally does not require special markings or signing as vehicle volume is low.

Collectors:

As collectors of traffic from Local Streets, the design of these corridors not only must accommodate the volume of traffic, but also be responsive to the change in land activity along the route. While Collectors may primarily remain residential in nature, more commercial activity is likely, especially where the Collector intersects with a Minor Arterial.

As a result the minimum width of an urban Collector should be 30 feet so that parking is allowed on one side which allows for two-11 foot travel lanes. However, land activity may create the need for parking on both sides of the street. If this is a needed provision, then the street width should be 38 feet to accommodate parking and still maintain the two-11 foot travel lanes. If a Collector is also part of a non-motorize plan or route, then several options should be considered. The simplest of these is signing the street as a "shared street". A second option would mark the street as a "Sharro" street where there is visible markings indicating non-motorized vehicles will be traveling in the motorized lanes. A third option would be to design the street an additional eight feet to provide for two-4 foot bike lanes. The option chosen should be based on a city non-motorized plan and implemented accordingly.

Minor Arterials:

Minor Arterials are generally "cross town" routes that are intersected by both Collector and Local Streets. They are generally more commercialized routes that carry volumes in excess of 5,000 vehicles per day in smaller communities like Frankenmuth. Motorist expectations are for higher speed limits along these routes so a 30 miles per hour speed is not unusual.

Minor Arterials generally service a higher level of land activity with commercial, industrial and service land use generally located along the route. However, some communities have Minor Arterials that are lined predominately by residential structures of which many of the communities multiple family structures may be found. In any case, there are much more ingress/egress movements along a Minor Arterial, which may require provisions for exclusive left turn lanes.

If a Minor Arterial requires a continuous left turn lane then the minimum width should be 32 feet. That width will accommodate a 10 foot turn lane and two-11 foot travel lanes. Depending on the land activity and use by commercial vehicles, a 36 foot width might best service the corridor by providing three-12 foot lanes. If parking is also needed, then

eight feet of pavement should be added to the above widths for each lane of parking provided. Depending on the intensity of land use along the route, parking may not be desirable as turning movements from/to a street with parking may cause safety issues. Driveway spacing and traffic generation are key factors in deciding parking provisions.

Non-motorized use may also be a factor in the parking issue. Ideally additional pavement would be provided for non-motorized travel. However, there may be instances where parking is removed in order to serve non-motorized movement. There are no clear answers without a traffic/parking analysis along the route.

Principal Arterials:

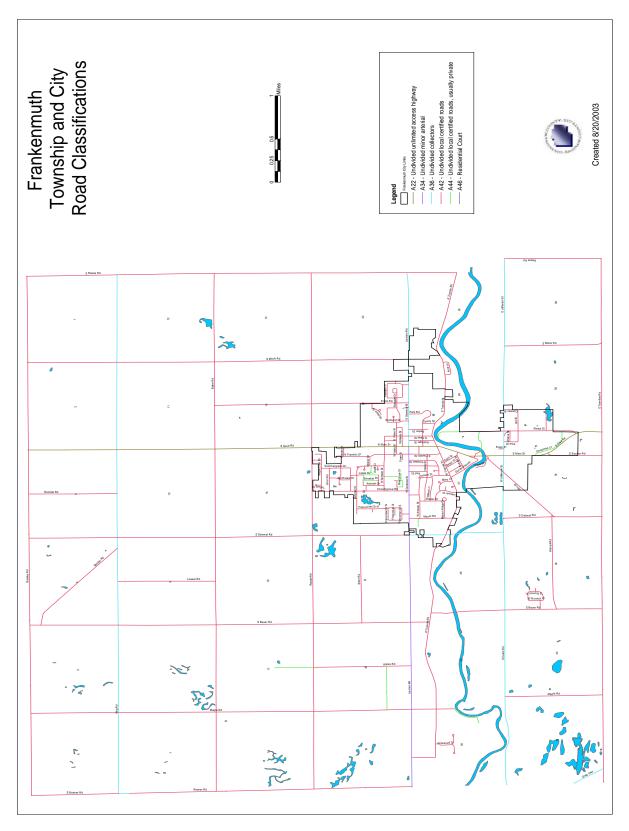
Principal Arterials are the primary or most important streets within a community. They carry the highest volume of traffic, provide the primary access in and out of the community and generally provide higher speed limits that will range from 30 to 45 mph. Street widths can vary from 36 to 60 feet in width. Some provide continuous left turn lanes while others can be designed as boulevards.

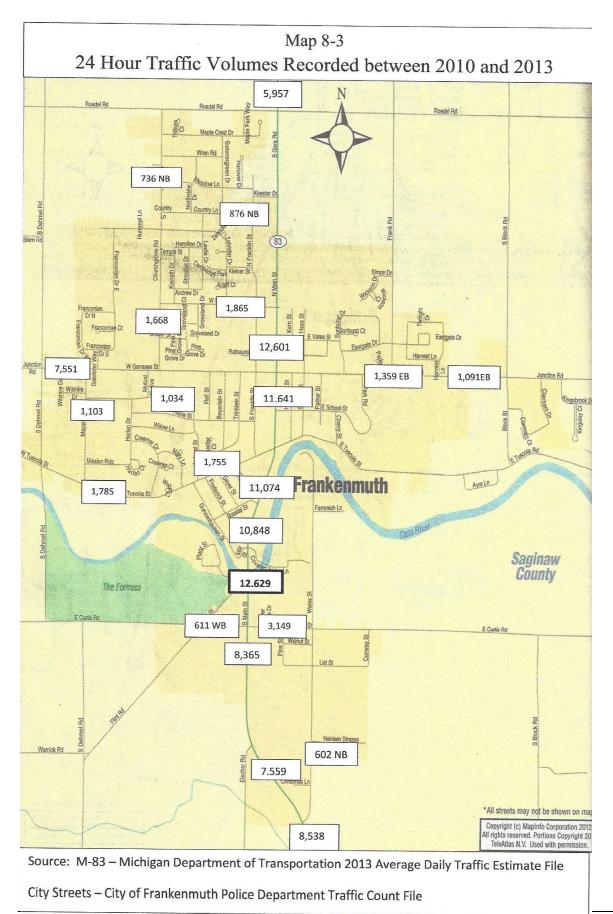
Traffic volume is one factor that needs to be considered in determining street width and the number of lanes. However, signalization along the route is just as important. If signals are spaced a mile or more apart, then three lanes could accommodate a volume equal to a four lane that has signals which are spaced one-half mile apart or closer. In either situation, the maximum volume of a three lane or four lane street, as noted above, has a volume limitation of about 20,000 vehicles per day. Higher volumes are usually the result of intense land activity along the route and may require provisions for turn lanes at intersections or at major land development.

The decision regarding street width, turn lanes and other features should be determined based on a traffic study that considers the street volume, turning movements along the route, signal spacing, pedestrian and non-motorized traffic along or crossing the street.

Focus Issue: After the 2020 Census, if the City population exceeds 5,000 the City should contact the Michigan Department of Transportation to inquire about and becoming a participant in the Federal-aid Small Urban Program. This will establish which streets within the City will be eligible for federal-aid funding for reconstruction and/or repair.

Map 8-2 Road Classifications





Traffic Volumes

For a city with the population of Frankenmuth, <u>and being the only city along M-83</u>, the traffic volumes are high. Table 8-1 shows 5 years of traffic volumes on M-83. The traffic counts indicate a large amount of traffic generated within the City of Frankenmuth. Internal Frankenmuth trips are likely largely locals, that have few alternatives to utilizing Main Street. There is also no alternative to circulate visitors such as a trolley bus. The table indicates volumes from 2002, which is the apex of volume recorded in the last 15 years and more recent volumes from 2009 through 2013.

Year	Townline Road	South City Limit	Cass River	Genesee Street	Koester Drive	King Road
2002	7,384	7,580	13,318	15,217	14,580	6,241
2009	6,764	8.037	12,385	13,195	12,468	5,126
2010	7,021	8,342	12,856	13,696	12,942	5,321
2011	6,838	8,125	13,522	13,340	12,608	5,183
2012	7,477	8,274	12,492	11,514	12,464	5,250
2013	7,559	8,365	12,629	11,641	12,601	5,957

Table 8-1 M-83 Traffic Volumes in the Frankenmuth Area

Source: MDOT, Bay Region Office

Estimates in bold italic are based from actual counts

According to the MDOT average daily traffic estimate; there was a decline in Main Street traffic from 2002 to 2011. That decline approached 15 percent. From 2011 through 2013 there is an increase in traffic south of Covered Bridge Lane whereas volumes north of that location are still about 7 percent below the 2002 level.

Many local streets also experienced decline in daily volume, but not as dramatically. The one exception, Junction Road, declined 7.6% down to 7,551 entering/leaving the City in 2014. The Curtis/Jefferson corridor did show a modest increase during that same time period.

Local street counts on Genesee Street in June of 2000 indicated traffic volumes of 8,173 vehicles west of Dehmel Road and 3,205 vehicles east of Block Road. Tuscola Street traffic counts in the spring of 1999 indicated 1,800 vehicles on Tuscola west of Main and 2,000 vehicles east of Main, The counts along this street have remained constant (See Map 8-3).

Focus Issue: With new development locating adjacent to M-83, both north and south ends of the City, it is important for the City to maintain open communications with the Michigan Department of Transportation regarding possible future improvements. The southern entrance to the City is especially important as the existing right-of-way is limited by adjacent development. As that area develops and as turning movements increase, revised street geometry may be required. Options other than widening may be required. In October, 2013, the City did request a study of M-83 from Jefferson to Townline Road for future design and access management. Funding was not available at that time.

CRASH PATTERNS

Crash patterns were studied for 2001-2002 for the City of Frankenmuth. Overall, the city had 311 reported crashes within the <u>two year study period</u>. A review of crash data for the years of 2010 through 2013 indicate that the citywide total for the most recent four years totaled 324 incidents. When averaged out between the studies, there was a 48 percent decline in incidents, some of which can relate to the decline in recorded volume, but most likely relates to improvements to M-83/Main

Street signal improvements.

M-83/Main Street is the corridor where the majority of crash incidents occur. There were 204 crashes recorded from 2010 through 2013 along Main Street. The 204 crashes represented 63 percent of the 324 crashes that were recorded in the City. Of the 204 crashes, 111 were recorded at intersections along Main Street (54.5 %) while the remaining 93 crashes occurred in mid-block outside of the influence of intersection movements.

Table 8-2 compares intersection crashes from the 2001-02 study with 2010-13 crash data provided through the Michigan State Police, Michigan Traffic Crash Facts report. It is important to note that the average daily traffic along Main Street, north of Jefferson Street was nearly 2,000 fewer vehicles per day during the 2010-2013 time period. Lower traffic volumes usually result in lower crash incidents, but in the case of M-83, traffic signal improvements made in 2009 were also a major factor.

Intersecting Street:	2001-02 incidents	2010 – 2013 incidents	2013 ADT
Schleier			
(Bavarian Mall			
entrance)*	15*	6	12,601
Vates	6	6	12,601
Genesee	37	24	12,601
School	8	3	11,641
Tuscola	8	19	11,074
Cass	15	3	10,848
Covered Bridge	19	15	12,629
Flint St.	7	6	12,629
Jefferson	23	13	8,365
Eischer	2	3	7,559
Weiss	6	11	8,538
Total	146	111	

Table 8-2 Main Street Crashes

Source: MDOT, 2001-2002

Michigan Traffic Crash Facts 2010-13, Michigan State Police

Specific improvements included the creation of an "all red" phase for Main Street signals. This means that vehicles, in all directions, receive a red phase of at least 2 seconds. The most notable improvement is evidenced at the intersection of Main and Genesee Streets where the two year recorded crash incident (2001-02) of 37 declined to 24 over a four year time frame (2010-13). Similarly the Jefferson and Cass Street Intersections also experienced a dramatic reduction in crashes. In addition to the "all red" phase, pedestrian count-down signals were placed at most of the signalized intersections. The count-down pedestrian signal informs the pedestrian the number of seconds they have to exit the cross-walk.

Two intersections still remain a concern; Main/Tuscola and M-83/Weiss. The Main/Tuscola intersection actually experienced an increase in crashes when averaged over time. This does not seem logical until several factors are introduced. Crash data includes incidents that occur within 150 feet of the intersection. The Tuscola intersection has experienced increased activity with the expansion of the Star of the West grain facilities and the reopening of the Frankenmuth Brewery. These two facilities have generated more left turn movements on Main Street without the introduction

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of a left turn lane or left turn signal phase. It is speculated that the turning movements may have resulted in increased rear-end crashes and sideswipe crashes as motorists try to change lanes. A detailed analysis of the individual incidents, the time of day and weather conditions, before a conclusive determination can be made.

The Covered Bridge Lane crash history was an improvement, but since it is a high volume vehicle and pedestrian crossing, it will likely remain one of the higher crash intersections along with the Main/Genesee intersection.

The M-83/Weiss Road intersection is one that appears may be increasing. The number of incidents is not abnormal, but the speed of M-83 vehicles combined with the likely angle of crashes does present of element of concern. If the City Parks and Recreation Department develops a recreation complex off Weiss Street, south of Heritage Park, there is likely to be an increase in movements at that intersection from visitors who will participate in summer tournaments. If and when that occurs, then this intersection may need a traffic study.

The Police Department has monitored traffic crashes at local street intersections. Between 2010 and 2012, there were two intersections that averaged more than one crash per year during the three year period. The two intersections are W. Genesee Street/Franklin Street and E. Genesee Street/Hass Street. At both of these locations there were six incidents recorded over the three year history that were examined. The proximity of the intersections to the Genesee/Main Street intersection, the volume of traffic on Genesee Street, in combination with weather and time of day might be factors that would result in these incidents and cannot be rectified.

Focus Issue: The City should work with the Michigan Department of Transportation in the examination and evaluation of the Main/Tuscola Street intersection to determine if there might be a reasonable and feasible solution to reduce the traffic crashes that occur at this intersection. In addition, the City should also monitor the M-83/Weiss Road intersection and whether crash incidents begin to increase when land activity increases along South Main Street and also Weiss Street. If crashes do increase, then intersection operational options should be discussed between MDOT and the City.

PREVIOUS STUDIES OF FRANKENMUTH TRAFFIC

A large number of studies have been conducted of the traffic situation in Frankenmuth over the past four decades. This section lists some of them and outlines their results.

State Highway Plan

In 1963, the state Highway Department created a plan for circulation in Frankenmuth. Traffic volume on Main Street in the heart of the city at that time was approximately 5000 vehicles per day. The primary concern of the plan was the curve at the intersection of Jefferson and Weiss, which was then a part of M-83. The plan presented three alternative future routes for M-83 and analyzed their advantages and disadvantages. Alternative #3 which was favored by the study is the current alignment of M-83 using what was then called Eischer Road south of Jefferson.

Major Thoroughfare Plan

In 1963, a major thoroughfare plan was formulated by Vilican-Lehman & Associates as a part of the Frankenmuth Master Plan. This plan proposed the realignment of M-83 in conjunction with the state study mentioned above. The only other major change in the street system was one proposal which was not adopted. It called for cutting a new street through from the southern end of Franklin Street to Main Street. According to the proposal this new street would be an extension of Franklin Street to the south. Franklin would then be redesigned as a four-lane secondary thoroughfare from Genesee to Main.

City of Frankenmuth Traffic Circulation Study as a Part of Saginaw Metropolitan Area Transportation Study

This study was initiated by the City of Frankenmuth in order to find ways to alleviate traffic congestion problems and safety conflicts along Main Street, and was carried out in 1976. A major concern of the study was to try to segregate tourist traffic from through and local traffic. This is a theme that has been on the minds of local residents, businessmen and professional planners for forty years. Findings of the study were as follows:

1) 15,000 vehicles entered or left the city on an average day in 1976.

2) Of these, 75 per cent were originating in or destined for Frankenmuth. The report said, "This is considered quite high for a community of its size and suggests that solutions will have to deal with internal problems;

3) The purposes of trips were:

a) 43 per cent work related

b) 18 per cent social and recreational;

c) 12 per cent shopping;

- d) 8 per cent personal;
- e) 6 per cent vacation;
- f) 12 per cent miscellaneous.

4) The central business district accounted for 42 per cent of all trips

Some of the solutions suggested by the study in order of priority are:

- 1) Eliminate Main Street parking;
- 2) Add traffic signals;
- 3) Control left turns;
- 4) Establish a dial-a-ride system;
- 5) Provide more off-street parking;

6) Provide pedestrian access across the Cass River at the Bavarian Inn.

All of these recommendations except the dial-a-ride have been carried out.

Traffic Engineering Review by Reid, Cool and Michalski, Inc.

In June of 1977, a traffic engineering study was done for the community. The primary problems it identified were: 1) through traffic in the downtown area;

2) unsafe pedestrian crossings; 3) turning movements; 4) disorganization of visitor parking; and 5) a high accident rate along M-83. Short-range solutions suggested were: 1) establish three lane roadway on M-83; 2) erect traffic signals; 3) improve intersection of River and Main; 4) consolidate parking; and 5) establish a shuttle bus system. Long range solutions were: 1) establish a people mover exclusive right-of-way; 2) close Main Street from Tuscola to the Cass River and route traffic along the backs of buildings thus establishing a set of one-way pairs. North of Tuscola, Franklin Street would act as the south bound route and Main Street would act as the north bound route.

A three-lane road conversion on Main Street was a traffic calming technique put in temporarily by the city and MDOT in 1999 for a period of about one year. However, there was dissatisfaction with the three-lane road implementation. While it improved walkability, many residents and business owners were concerned about reduced travel time due to increased traffic congestion from the three-lane road conversion. This is likely because of no other nearby river crossing which would permit local residents another north-south travel option. If traffic calming were to become a future consideration more important than most efficient traffic flow, then a three-lane road option would be worth reconsidering. The other traffic calming option would be to convert the two outside lanes to parking.

MDOT Commercial Origin and Destination Study

In March of 1999, MDOT conducted an origin and destination study of commercial vehicles within the city and township. Observance stations were located at M-83 and Townline Road, M-83 and Roedel, West Genesee and Dehmel Road and E. Genesee and Reese Road. The methodology recorded license plate numbers of commercial vehicles as they entered and exited the city.

The results of the survey indicated that the greatest number of trucks was found on M-83. There were 222 trucks recorded entering the city on southbound M-83 (from the north), which was the highest in the study area. The second highest entry point for trucks was northbound M-83 into the city from the south with 198 trucks recorded. The highest exit point for trucks was located on northbound M-83, from the south with 276 trucks recorded. There were 267 trucks recorded exiting the city on southbound M-83, from the north.

Truck traffic numbers were much lower on Genesee than M-83, but because of lower traffic volumes, Genesee had a higher percentage of trucks. Westbound traffic on East Genesee Street on the east side of the city consisted of 40% trucks.

MDOT's most recent classified counts on M-83 were taken in 2009. On Tuesday, May 5th a count was taken on M-83 north of Townline Road. The 24 hour volume was 7,773 with a commercial volume of 340 trucks. Of the 340 trucks, 229 were semi- trucks with either single or double trailers. The 340 trucks comprise 4.4% of the daily volume. Although this a small percentage of the total volume, trucks do create a noise issue for pedestrians. On the other hand, many of the trucks entering/leaving Frankenmuth are making deliveries to various establishments within the community. Therefore trucks become a necessity to the everyday events within the community.

FUTURE TRAFFIC CIRCULATION

It is expected that traffic on all streets in the community will continue to grow based largely on:

- Increases in tourist traffic, <u>especially on festival weekends</u>
- Increases in residential development in and around the city and in nearby townships.

Volume during peak periods hours will not increase significantly as if volume taxes the capacity of the existing street at peak period and people are discouraged from travel. This situation is not likely to happen as a daily occurrence, but could occur when festivals bring large crowds to the community.

The most significant alteration in the pattern of travel in the last two decades resulted from the <u>replacement completion</u> of the Dehmel Road Bridge <u>over the Cass River</u>. As traffic on Dehmel grows, and it becomes the "alternate road" into town, there may be a need for some intersection design improvements at Dehmel Road and Curtiss Road. Volume increases and hazardous movements will indicate when redesign is needed. the irregular intersections of Dehmel with West Jefferson and Flint Streets will become increasingly hazardous. The community must make a decision now as to whether it wants Dehmel to be a through street or whether through traffic should be discouraged. Either way, some street design improvements at the above mentioned intersections will be necessary.

It will is also be important to ensure that access management regulations guidance are- is used to separate future commercial driveways at proper distances depending on the speed of the roadway. The MDOT Access Management Guidebook has standards and model ordinance language to guide these decisions.

Of equal importance will be the need to ensure that as new developments are approved, that new streets connect with existing streets in the traditional block style. Cul-de-sac designs should not be approved are not desirable as they force all traffic to the perimeter roads and make it difficult to visit

homes on the backside of a property without going a long way around. They are also problematic for emergency vehicles if the only way in is blocked (such as from a snow or ice storm).

ROADS IN NEED OF IMPROVEMENT AND NEW ROADS

Most of the bridges and roads within the City of Frankenmuth are presently in good condition. The city utilizes its own funds to maintain the roads each year that are under its jurisdiction. Future road improvements and resurfacing projects should be guided by priorities set as a part of the city's capital improvement programming process. MDOT maintains M-83 and the bridge located on M-83. The Saginaw County Road Commission maintains the bridge over Dehmel Road and several of the outlying roads. The wooden covered bridge is privately owned by the owners of the Bavarian Inn and Zehnders.

Since at least the 1963 Vilican-Leman Plan, a bridge and eventually a road extension over the Cass River connecting Block Road on the north to Block Road on the south has been planned. While traffic volumes and congestion do not yet require such a bridge, it is essential that it be constructed at an appropriate time (probably about 10-15 years from now) in order to permit alternate routes for local traffic, much the way Dehmel Road functions now. This investment will significantly improve convenience and hence quality of life for a large number of Frankenmuth citizens, at a comparatively small impact to residents along Block Road. However, this will be a relatively large cost capital improvement that will require careful planning and budgeting to achieve.

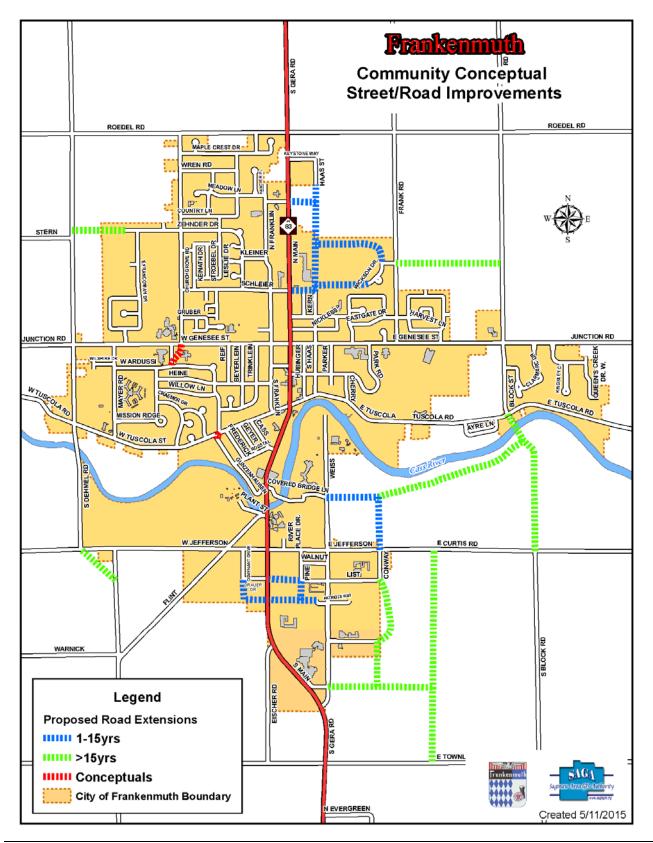
It is likely the Block Road bridge would be built prior to, and perhaps long before Block Road would be extended to E. Jefferson/Curtis Road. Initially, the bridge would serve traffic from Heritage Park along a new parkway on the south river ridge between Weiss and Block Bridge. This would greatly relieve congestion during festivals, while improving fire, police and rescue service access to the park. It would also serve local traffic without creating an eastern bypass to the city for longer distance travelers. It would also permit the farmland south of the river to be farmed as one large unit for several decades before some of it is acquired for right-of-way on an extended Block Road. However, because of its impact on existing farmland, any new road in this area needs to be carefully conceived and skillfully constructed to minimize negative and/or growth inducing impacts as long as adjoining land is actively farmed.

While there has at various times been significant opposition to a Block Road river crossing, no future traffic improvement in the city would have more congestion relief, traffic safety, convenience or improved access benefits than this one.

In addition to the new bridge across the Cass River, several new roads should be constructed as new development occurs (see Map 8-5). These are all collector roads which will complete the interconnected network of streets and roads that currently serve the city and this part of the township. The proposed locations are conceptual. The actual locations will depend on site specific conditions and opportunities. The key is continuing the grid of interconnected streets and preventing the creation of new dead end or cul-de-sac streets wherever feasible.

The most pressing of these is the river ridge road south of the River described above. All the other segments should be planned and constructed as part of new development in those areas. Some may take 30-40 years before construction and would not likely be needed before farming activities on those lands were terminated. Any farmland preservation efforts in these areas should exclude land that may be needed for future right-of-way.

Map 8-5 Transportation Improvements



PEDESTRIANS AND NON-MOTORIZED TRANSPORTATION

COMPLETE STREETS

PEDSTRIANS & WALKWAYS

As indicated at the beginning of this chapter, Public Act 134 of 2010 recommends all municipalities that develop a Master Plan should consider a Complete Streets program. In the case of the City of Frankenmuth, much work has already taken place. With the recent addition of Keystone Way, Covenant Drive and Grauer Drive there is nearly 29 miles of streets within the city. Of that amount about 69% are considered City Local streets while 31 percent are City Major streets.

Sidewalks line about 50 miles of these streets, most of them on both sides of the street system. Exceptions do exist. Those exceptions are within some condominium developments that are accessed by stub or cul-de-sac streets, in subdivisions where vacant lot frontage exists, and only on one side of segments of Churchgrove Road, Tuscola Street and Block Street.

There are many residents in the area who actively walk throughout the community, at least on days that the weather permits. The city maintains the walks and annually reviews their condition to determine if there is elevation separation at sidewalk joints. When this condition exists, the concrete joints are ground down to reduce the potential of pedestrian injury. In addition, the sidewalk system has been made 100 percent ADA compliant at street intersections.

<u>The largest volume of pedestrian travel occurs in the</u> downtown. Pedestrian accessibility in <u>the</u> <u>downtown</u> has been discussed and debated for many years. <u>Because Since</u> Main Street is also a state trunkline, MDOT has been involved in the effort to calm traffic on M-83 and reduce vehicle and pedestrian conflicts. Some of the efforts that the city has proposed, MDOT has rejected, such as on-street parking. However, MDOT has stated that they recognize with the Frankenmuth economy is so heavily invested in tourism, pedestrians need to have increased comfort and safety on Main Street .and the remainder of the city.

In 2009, MDOT installed new traffic signals on Main Street at the intersection with Covered Bridge Lane, the Zehnder's – Bavarian Inn cross walk and at the intersection with Cass Street. These new signals added to pedestrian safety by including new pedestrian countdown guidance that indicates the amount of time (in seconds) that a pedestrian has to clear the crosswalk and access the sidewalk across the street. Prior to installing these signals, MDOT also did a pedestrian survey to determine the volume of pedestrians using each crossing during the warmer months. One date chosen in May was on a weekend when the World Expo of Beer was being held in Heritage Park while the other weekend was on a non-festival weekend in July. Table 8-6 indicates the volumes recorded on those dates during a time period of 10:00 am to 8:00 pm. It also indicates a pedestrian problem that exists along Main Street, south of Genesee Street, which is jaywalking.

Table 8-6

Main Street Pedestrian Counts – 2008 Main Street Survey at primary Main Street Crossing Points May 16 &17 during World Expo of Beer and July 18 & 19, 2008 Time Recorded: 10:00 am. To 8:00 pm.

Location	Friday – May	Friday – July	Saturday – May	Saturday - July
Main & Cass St.	2,839	2,701	7,849	4,335
Restaurant Xing	2,045	1,492	3,426	2,987
Main & C. Bridge	1,593	2,677	5,865	4,831
Travel Info Center Jaywalking	No data gathered	No data gathered	404	346

Jaywalking is also a concern. As part of the MDOT survey, recordings were made of pedestrians crossing in mid-block from the northern driveways of the restaurants to the driveway south of the Historical Museum. Those pedestrian counts were taken on Saturdays when vehicle traffic was heaviest. There were 404 pedestrians counted in May and 346 in July. The numbers represent 11.8% and 11.6% of the pedestrians using the designated pedestrian crossing between the restaurants.

However there have been measures to restrict this activity through the City's Beautification program. Plantings that have been located behind the street curb create a sense of separation for the pedestrian from passing vehicular traffic. In turn, those plantings also restrict the opportunities for pedestrians to make mid-block crossings.

MDOT offers Transportation Enhancement Grants on a competitive basis to a limited number of communities each year along state trunklines. Grants have covered approximately 50-80% of the costs of pedestrian and bike trails in communities that were selected. Frankenmuth recently received a \$250,000 MDOT Enhancement Grant for <u>its</u> streetscaping.

FOCUS ISSUE: Study options to create a pedestrian access from Downtown to Heritage Park so that festival and recreation event participants can walk from the park to downtown leaving their vehicles at the park and not bringing them Downtown thereby reducing Main Street traffic.

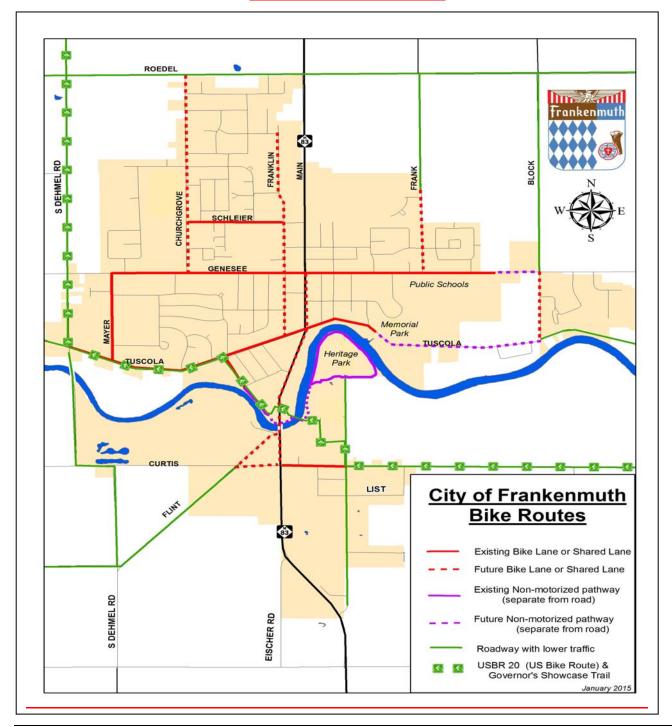
NON- MOTORIZED FACILITIES

Creating pedestrian/biking trails linking downtown areas with the destinations such as Heritage Park, Bronner's, and other commercial areas would reduce the number of automobiles on Main Street. Creation of a pedestrian/bike trail may also attract more tourists that are interested in physical fitness oriented activities and the trails would be a benefit to citizens as well.

Currently the only recreation trail within the City of Frankenmuth is a mile-long segment along the Cass River which also traverses Heritage Park. Given Frankenmuth's high tourist population, and the desire for reducing the amount of auto travel, pedestrian/biking trails would be a welcome addition to link downtown areas with additional shopping areas, parks and other tourist attractions. The most

immediate need is a pedestrian/bike bridge across the Cass River at the north end of Heritage Park across to East Tuscola or Main Street.

Since the 2010 Master Plan, the Frankenmuth Parks and Recreation Department has been busy developing a Bicycle Master Plan for the City of Frankenmuth. The Plan has been adopted and elements have been put into place. Map 8-6 identifies the primary non-motorized network that is to be established that will have marked bike lanes and signage.



Map 8-6a Frankenmuth Bike Route Plan

The map illustrates the routes that are or will be marked as part of the non-motorized system within the city, but the plan also suggests which city routes should extend out into the Township and possibly beyond.

Genesee Street was the first street marked with 4 foot bike lanes prior to the completion of the plan. The bike lane extended from Mayer Road to just west of the public school campus. Since that time it has been extended further east and then transitions into a signed "share the road" facility out to Block <u>Street.</u>

The most notable route that has been established is U.S. Bike Route 20. US Bike Route 20 is a national bike route that crosses the United States and a segment of the Michigan portion of this route passes through the City of Frankenmuth and Frankenmuth Township. In Michigan it is a 300 mile route that extends from Marine City (via ferry from Canada) and extends to Ludington where cyclists must travel on the Badger Ferry Line across Lake Michigan. The Michigan leg of the route was proposed by the Michigan Trails and Greenways Alliance in collaboration with the City of Frankenmuth.

The route within the City follows Dehmel Road, Tuscola, Gunzenhausen, Covered Bridge Lane, Weiss Street and Jefferson/Curtis/Ormes Road. Signs like the one below are used to mark the trail for those who desire to ride portion or all of this route within Michigan.



Coincidently, the Michigan Department of Natural Resources is also proposing a statewide bike trail being labeled the "Iron-Belle Trail". This bike trail is to extend from the City of Ironwood in the Upper Peninsula down to Belle Isle. The preliminary alignment of that trail would also pass through the City of Frankenmuth and would follow the identical path as U.S. Bike Route 20.

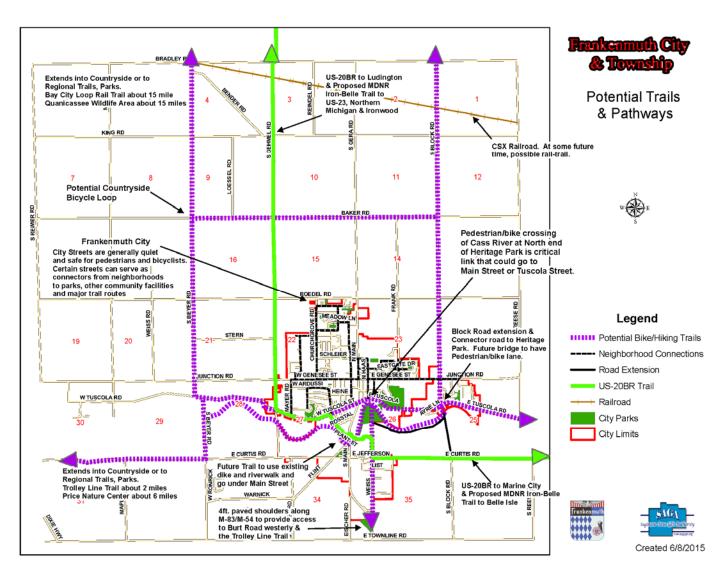
FOCUS ISSUE: The City of Frankenmuth should collaborate with the Michigan Department of Natural Resources in the development of this trail and share ideas on how this trail is promoted to the populace of Michigan and surrounding states.

More recently other bike lanes have been established. Tuscola Road from Dehmel to Main Street has been marked with a bike/parking lane, Mayer Road from Tuscola north to Genesee Street, East Jefferson from Main to Weiss Street and Schleier Street from Churchgrove to Main Street.

The bike route system is being created to promote cycling within the City to help reduce the local need or use of vehicles, but in turn, create a marked and signed system that improves cyclist safety. According to Michigan State Police Crash Files, there were five vehicle/bicycle crashes in the City of Frankenmuth between 2009 and 2013. In all five instances the cyclist was riding on the sidewalk and ran into a vehicle at an intersection or a driveway. Four of the five incidents occurred along Main Street and the fifth incident occurred along E. Genesee Street. The rider's age ranged from 10 to 21, while the motorist's age ranged from 17 to 47.

FOCUS ISSUE: To pursue funding for completion of the bike route system, as planned, seeking

MDNR or MDOT enhancement funding. Also institute a bike safety program, possibly utilizing a time period during the spring school session and concurrently create a "Motorist Awareness" effort.



Map 8-6b Potential Frankenmuth Trail System

PARKING

The city conducted a parking inventory during 1995 and 1996. The study concentrated on off-street parking in the downtown between Genesee Street and Jefferson Street. The study also inventoried business square footage to determine code requirements for parking. The study was updated in 2000. As of December 2000, there were 2,960 parking spaces in existence, and code requirements are for 2,915, an excess of 45. Since the study was completed, two new parking lots were constructed just west of the Fairfield Inn and another on the north side of the Library. Both were completed in order to serve new development in that area, including like the Frankenmuth Brewery. While the relationship between parking and code requirements has not been studied since 2000, it appears that the excess of off-street parking in the downtown is now greater than in 2000. This situation should continue to be periodically monitored and if it worsens, attention should first be given to the provision of transit services, at least for tourists.

PUBLIC TRANSPORTATION

Saginaw Transit Authority (STARS) discontinued services to Frankenmuth in early 2004 and tried a similar program again in 2012 because of a failed millage campaign. The \$1.75 full fare on the STARS system may have made it unattractive for those who only wished to travel a short distance within Frankenmuth and few sought trips into Saginaw due to time and transfer requirements.

Frankenmuth may be better served by setting up a free tourist circulation bus, which would allow tourists to park their cars and circulate within Frankenmuth instead of utilizing their automobile. Frankenmuth would might also benefit from a shuttle bus between Birch Run's Outlet Mall and Frankenmuth to accommodate citizen and tourist trips between these two destinations. Teens who work at the Mall, who are without transportation might would be also benefited, and it would reduce auto traffic between the two destinations. The cost of the operation of a bus could be considered by the city or Chamber of Commerce as a customer service for tourists. Downtown tourist circulation buses are not generally profitable businesses, and therefore it is unlikely a private entrepreneur would start the service. The goal of the circulator would be to reduce congestion and improve the visitor experience.

Trolley buses, which look like a trolley but operate as a bus, can provide a more historic, unique appeal. If Frankenmuth was interested in starting a public transit service, as an area under 100,000 population it would receive up to 60 percent of eligible expenses from the State of Michigan (MDOT). The Federal Transit Administration provides assistance for capital costs to public transit providers, up to 90 percent, such as the cost of buses and passenger shelters. In order to take advantage of the state and federal funding, the bus would have to be run by a public entity, private entities are not eligible for funding.

Frankenmuth is one of the few areas in the state with no "demand response" service for the elderly and disabled populations. "Demand response" offers rides by scheduling one day in advance. Many of the more rural communities in Michigan operate demand response systems.

In the community opinion survey undertaken by Michigan State University in 1985 a strong desire for some form of public transportation was expressed. Although distances are small for those with access to private auto transportation, the concentration of shopping and public facilities in the heart of the city make them inaccessible to those who may not drive for a variety of reasons. Particularly affected are the elderly. This difficulty is exacerbated by the poor availability and high cost of taxi service. With the large proportion of elderly residents, some demand responsive transit service seems essential.

For tourists, horse drawn carriages circle the downtown area. This service is seasonal and is not seen as a replacement for public transit. Because of the way the commercial district has developed and because of its length, the lack of public transportation has become a problem for tourists. They cannot just park once, they must park and walk, then return to the car and drive, park and walk again. This is especially significant for the elderly. A typical trip might be to stop a Bronner's at the south end of town, proceed to Zehnder's for a meal and to visit small shops in the vicinity, and then drive to the Brewery or hotels in the area. These extra trips add traffic volume and turning movements to Main Street. During peak tourist periods when parking is difficult to find, each extra auto trip involves a search for parking. Such a search typically produces extra turning movements in and out of parking lots and may also produce considerable frustration which makes Frankenmuth less attractive as a tourist center. A tourist oriented shuttle bus would alleviate much of the traffic and confusion. It is particularly needed on weekends and during the summer.

Inter-city public transportation is also not available in Frankenmuth and the city has no passenger terminal. The closest access to inter-city busses, such as Greyhound, is in the City of Saginaw and the City of Flint.

FOCUS ISSUE: The Planning Commission, in concert with the City Council, should consider a study of the cost and feasibility of a public shuttle bus program that would serve Main Street and possibility of the entire community. Conduct this study prior to the 2020 Master Plan Update.

AIR TRANSPORTATION

The Saginaw Metropolitan area is served by MBS International Airport located on the northwest side of Saginaw about 32 miles from Frankenmuth. <u>MBS International is served by two carriers, Delta and United, with flights to Detroit, Chicago-O'Hare and Minneapolis.</u>

Frankenmuth <u>area residents also can obtain</u> air passenger <u>service at</u> Bishop International Airport in Flint which is about 25 miles away. Direct access via I-75 makes it closer than the MBS International Airport for the air traveler. <u>Bishop offers four air carriers; United, Delta, American and Southwest, that combine to twenty flights per day.</u>

Detroit Metropolitan Airport is currently Northwest Airlines' transportation hub. In addition to Northwest there are several other air carriers that offer service at the airport with over 500 flights per day and direct service to cities around the world. The Detroit Metro Airport serviced over 35 million passengers in 2000, and is the largest airport within Michigan. It is about 95 miles from Frankenmuth and at currently no buses or shuttle service exists between Frankenmuth and any of these major airports.

Frankenmuth also has its own landing strip on South Block Road just two miles from the community's population center. This facility, <u>known as the Tiny Zehnder Airport</u>, is a privately owned, public use facility, and is used as a general aviation facility only. <u>This facility has a grass runway and visual</u> <u>landing limitations</u>.

Similarly, Another airport close to Frankenmuth is the Harry Browne Airport on the east side of Saginaw is located at Airport Road in Buena Vista Township about 13 miles from the center of Frankenmuth. Harry Browne has a hard surface runway and is equipped with instrument control landing capabilities.

In regards to Harry Browne Airport, this facility is included in the, "Tri-City Area Joint Airport Zoning Ordinance. The ordinance is intended to limit structure heights in proximity of each airport. The ordinance for Harry Browne stipulates that any community within 10 mile radius of the facility must limit any structural height; i.e., cell towers, wind turbines or buildings, to 500 feet or less. At this time no such structures exist with the city or the township.

RAIL TRANSPORTATION

There are no rail lines through the City of Frankenmuth. There is one active rail line running in the northern portion of Frankenmuth Township, through the settlement of Gera. Rail traffic has decreased on this line, which is now only locally utilized by the Star of the West Milling Company. <u>Passenger</u> service is available via Amtrak, but residents need to travel to Flint to access that mode of travel.

Chapter 9

GROWTH MANAGEMENT STRATEGY

INTRODUCTION

The <u>Frankenmuth Community Master Plan</u> was adopted in 1985. It was the result of several years of effort and was the first joint plan guiding future land use and infrastructure in the City of Frankenmuth and Frankenmuth Township. That Plan was prepared based on extensive public input through a long opinion survey conducted with significant assistance from Michigan State University that resulted in a 93% return rate (unprecedented). The key goals of that Plan are presented in Chapter 5 and remain the same today:

- <u>Social Goal</u> To assimilate modest population increase while maintaining the community's attitudes, values and traditions.
- <u>Economic Goal</u> To grow modestly as an employment center for tourism, research, financial, light industrial and agriculturally-based activity, approaching self-sufficiency in commerce and services, but continuing to rely on other urban centers for employment. Also to manage costs and revenues so as to maintain financial self-sufficiency in the public sector.
- <u>Physical Goal</u> To grow as a carefully planned center of urban development, surrounded by a greenbelt of farmland, woods, and sparsely spaced non-farm residences located on land less suited for agriculture; except for land inside the urban limit line. In the long run, limited growth of the Gera settlement might also be accommodated.

The key elements of the growth management strategy in the 1985 Plan remain intact today and are continued by this Plan. These include:

- Establishment of an urban limit line (ULL) in the township and surrounding the city within which all new urban development would be located. Land proposed for development within the ULL that otherwise meets the PUD requirements (identical provisions of the zoning ordinance in the township and city) is jointly reviewed and approved for development, whereas, land outside the boundary is not permitted to be developed for dwelling units in greater numbers or on larger acreage than the agricultural districts in the Township Zoning Ordinance permit. Once approved, a project on land within the ULL is annexed into the city.
- Preservation of farmland outside the ULL, and inside the boundary until it is needed for development.
- Limiting new residences in the A-1 and A-2 agricultural districts in the township according to a formula that resulted in not more than four and six dwelling units, respectively, in 2004.
- The joint review mechanism, the location of the ULL, and an annexation agreement were formally incorporated into an intergovernmental agreement and adopted by each jurisdiction in 1996. This is a legally binding agreement. The current agreement is up for renewal or cancellation in 2016.

This chapter explains the growth management strategy of this Plan in more detail than the above summary. The strategy is comprised of a series of interrelated policies which include:

- The joint urban limit line policy;
- The joint PUD review and approval policy;
- The township's annual building permit policy;
- A joint PA 425 policy; and
- A PDR and TDR policy.

The first two policies of this growth management strategy have been in place since the first joint plan was prepared in 1985. The Township adopted its annual building permit policy in 1989. The last two policies have changed very little over this period. The other two policies are newly incorporated in this Plan, and have been under discussion in different forms for several years. All of these policies are implemented through a variety of means including joint intergovernmental agreements, through separate provisions in each zoning ordinance, through capital improvement decisions by the respective governing bodies of the city and township, and by individual property owner decisions.

In addition, this chapter proposes two new strategies which eventually may result in new policies when additional work is completed:

- A greenways strategy; and
- A joint tourism strategy.

JOINT URBAN LIMIT LINE POLICY Background

When the urban limit line was established in 1985, there were 1,429 acres of land inside that line which were outside the city limits and within the township. Since then, about $\frac{595 614}{595 614}$ acres have been developed or are unavailable $\frac{(41.6\%)}{(43.0\%)}$. In 1985, there were already two PUD areas designated but only partially developed within the City which, if counted, bring the total number of acres designated for development to 1,574 acres. Of that total, $\frac{614 633}{614}$ acres have been developed or are unavailable $\frac{(39.9\%)}{(40.2\%)}$. In 1990, the land area of the City was $\frac{2.5}{2.7}$ square miles $(\frac{1,600}{1,735} \text{ acres})$; in 2000 it was $\frac{2.73}{2.94} \text{ square miles}$ ($\frac{1,747}{1,882} \text{ acres}$); in 2010 it was 3.07 square miles (1,962 acres); currently it is $\frac{2.85}{2.94} \text{ square miles}$ ($\frac{1,827}{1,981} \text{ acres}$). At an average of 3.5 dwelling units per acre (base zoning density) and $\frac{2.16 2.14}{2.14}$ persons/dwelling unit (the City population/household from the $\frac{2000}{2010}$ Census), the $\frac{624}{611}$ acres of residentially zoned undeveloped land area within the ULL is enough to accommodate $\frac{2,184}{2,138}$ dwellings and $\frac{4,747}{4,575}$ persons. The current estimated population of the City is about $\frac{4,970}{4,970}$ persons; The Township is about $\frac{2,000}{1,980}$ persons (see Chapter 2). <u>Please note that the preceding estimated population numbers are based on information provided by the Saginaw Area GIS Authority.</u>

The ULL benefits the City by providing a planned area for future growth and development that is accessible as the need for new development emerges, and without the unpredictability associated with State Boundary Commission disputes or lawsuits. It permits economical expansion of public utilities and services and results in a compact settlement pattern.

The ULL benefits the Township by providing a planned area for intensive development that surrounds the City and greatly reduces the negative impact of development on farmland if that same amount of development were to be scattered across the countryside. It has also protected landowners from property tax increases that accompany new development.

The ULL also provides predictability and certainty to the land development process for property within the line that otherwise is unlikely to be predictable or certain.

Value and Benefit of a Greenbelt

Development within the ULL ensures a greenbelt around the City of Frankenmuth. Greenbelts go back in history to the planning of cities following the industrial revolution. Industrial cities were inhospitable places to live so bands of farmland, parks or other open spaces were provided at intervals from the city center to make urban life more livable as open space was always near at hand. The tradition of planning for greenbelts has continued and is alive and well in Frankenmuth. Research has shown that natural areas and fields of crops have an important role in the well-being of people. In addition to humans having an instinctive attraction to natural areas, they serve many functions:

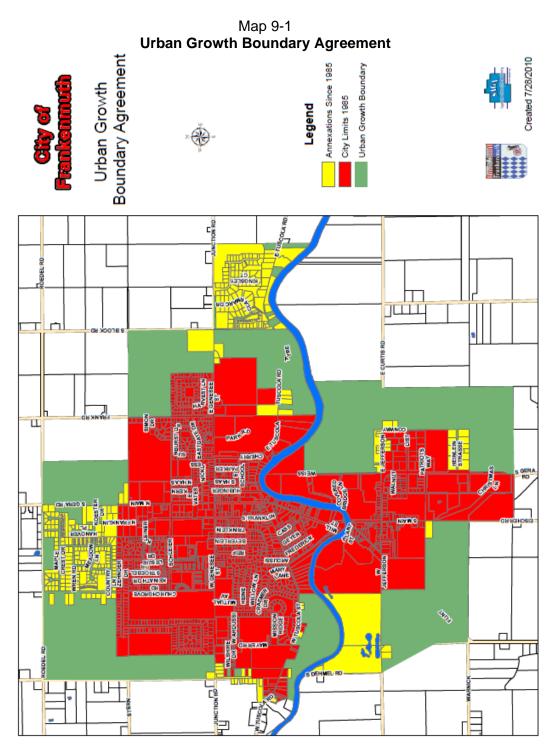
- Relieves stress;
- Provides for recreational experiences not otherwise available to city residents;
- Helps make a community more walkable and thus healthier, reducing obesity;
- Cleanses stormwater runoff;
- Cleanses the air we breathe;
- Provides educational experiences not available in city parks or backyards;
- Increases property values (can be measured according to distance from a greenbelt or natural areas);
- Provides higher quality or lower cost food;
- Contributes to the positive identity of a community.

In Frankenmuth the agricultural greenbelt provides two additional benefits:

- 1. It protects the economic value of agricultural production. This is money that circulates in the local economy.
- 2. It protects the image of a small Bavarian community surrounded by agricultural land. This is a very important dimension of *"the Frankenmuth tourist experience."* If Frankenmuth were surrounded with suburban sprawl, the tourist experience would be much different and much less rewarding.

Urban Limit Line Policy

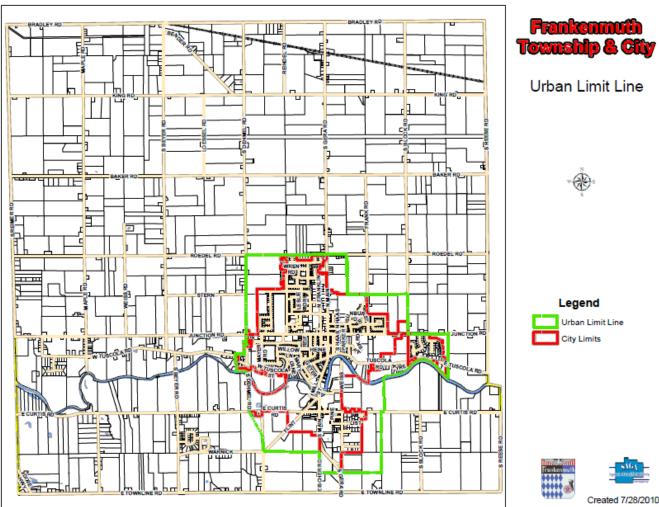
This ULL policy embraces all the elements in the existing formal Urban Growth Boundary Agreement between the City of Frankenmuth and Frankenmuth Township. It includes text describing the area affected and the terms of the agreement. A map showing the boundaries of the agreement as well as the city limit line in 1985, annexations pursuant to the agreement since 1985 and the urban growth boundaries of the current agreement (as of July 2010) are illustrated on Map 9-1. The urban growth boundary (land in green on Map 9-1) outlines all the land jointly planned for future urban development that would be added to the city and provided with city services if it met the joint PUD requirements of the city and township zoning ordinances (described in more detail in the next section).



From January 1, 1986 to January 1, 2014 2015, there were 103 112 separate parcels within the yellow area (former green area) annexed into the city without contest since this policy was adopted. In the three years prior to the development of the urban growth boundary line, two of seven parcel annexations were challenged before the State Boundary Commission.

Map 9-2 shows just the boundaries of the ULL surrounding the city and within the township. There are no changes to the 1985 boundaries proposed at this time. These are the same boundaries as on Maps 6-2a, 6-2b, 7-2, 7-3 and 7-4 in Chapters 6 and 7.

Map 9-2 Urban Limit Line



By far the most significant issue thoroughly discussed as a part of the 2005 update of this Plan was whether or not to change the ULL boundaries and, if so, what criteria should be used to make a change. This discussion was precipitated by the fact that about 39% of the land within the ULL was developed between 1985 and 2005 and because some developers and landowners have actively lobbied to have the ULL expanded further into the township. Developers' concerns were primarily motivated by several factors:

- <u>Supply of available land</u>: many farmers owning undeveloped land within the ULL have no immediate intentions of stopping farming, thus their land is not available for sale at the current time, at least at prices developers have been willing to pay.
- <u>Developers own land outside the boundary</u>: developers have chosen to speculate on land outside the ULL and wish to see this land developed before other land within the boundary because they already own it.

Also note that the major developers in the community already own undeveloped land inside the ULL boundary.

After examining all known proposals for possible future development outside the boundary of the ULL, and following considerable discussion by both the city and township planning commissions and governing bodies, as well as considerable public input at an all-day public participation meeting in January 2004 and a follow-up Town Meeting in June 2004, a joint decision was made that there is no need to change the boundaries of the ULL now. However, there was a need to develop criteria to guide future requests to consider changing the boundaries of the line. The 2005 supply of undeveloped land within the ULL (61%) was equivalent to about a thirty-five year supply of land if remaining land is developed at a density of 3-5 dwelling units per acre. An Urban Limit Line Committee was formed which offered the following suggested criteria that were ultimately accepted with minor refinements by the public at a Town Meeting in June 2004 and by an overwhelming majority of the members of both planning commissions and governing bodies.

It is the intent of this Plan that future changes to the boundaries of the urban limit line not be made unless all of the following criteria are met.

- 1. Moving the ULL would only be considered for residential development. (See Map 6-2b for future land uses outside the current city limits and within the ULL).
- 2. At least 50% of the residentially zoned area inside the current ULL should be developed before consideration is given to expanding the ULL. The goal is that the undeveloped, residentially zoned land within the ULL should not fall below 45% before the boundary is expanded. Percentages are based on the original 1985 city limits and 1985 ULL. [NOTE: THE WORDS "RESIDENTIALLY ZONED" AND THE MEASUREMENT TIME FRAME MAY BE CHANGED BASED ON FURTHER DISCUSSION BETWEEN THE CITY AND TOWNSHIP.]
- 3. Future locations of the ULL should be drawn along roads or other natural boundaries where possible.
- 4. Quality of farm land should be taken into consideration when changes of the ULL are proposed.
- 5. The natural terrain of the proposed property should be a factor.
- 6. Areas touching the existing ULL on two sides should be given priority over areas that only touch on one side.
- 7. The opinion of the current owner of the property being proposed may be taken into consideration.
- 8. At the time a change to the ULL is proposed, is suitable land available for development as residential development? If yes, that argues against changing the line, except as provided in #2 above.
- 9. At the time a change to the ULL is proposed, is supply and demand for the remaining property inside the ULL causing a problem? If it is, that argues in favor of expanding the line.
- 10. Some type of funding for farmland preservation for PDR's and TDR's should be considered as an additional tool so that the ULL does not have to carry so much of the farmland preservation burden. If a developer were to propose additional permanent farmland preservation outside the ULL as part of a proposal to expand the line, that should be given favorable consideration.

While not formally adopted as part of the criteria for ULL changes, another issue that comes up periodically should be given serious consideration. This is the practical challenges posed to landowners whose property is split by the ULL, or which have separately described property both within and outside the ULL, but contiguous with it. Careful thought needs to be given to possibly excepting such properties from the decision criteria above when it is all in the same ownership and the farmer is ready to retire and wishes to cash out all assets at once.

A second situation that may warrant serious consideration occurs when a landowner wishes to swap land within the ULL for land contiguous to, but outside the ULL. Depending upon where the land is, it's suitability for farming and practical issues associated with its potential use, it may be beneficial to consider such changes to the ULL. These two issues should be addressed in future refinements to the ULL boundary change policy.

Some new developments within the ULL have built at lower than 3.5 dwelling units per acre and this increases the risk that the land within the ULL will be used up more quickly than intended and that the current ambiance of the city will be lost with a lower density. For example, if land were developed at two dwelling units/acre, that would use up available land in the ULL twice as fast as if developed at four dwelling units/acre. However, there is also concern that simply increasing density will result in poor site design or incompatibility between new and existing residences. As a result, this Plan recommends changes to the Zoning Ordinances of the city and township that first require a base density of at least 3.5 dwelling units per acre and second a maximum density of not more than 4-5 dwelling units per acre, based on designs that:

- 1. Are aesthetically pleasing,
- 2. Blend with the character of existing homes in the area,
- 3. Preserve usable, well landscaped open space,
- 4. Connect well with sidewalks and trails in the area.
- 5. Provide for a variety of different housing designs within the development; and in some instances
- 6. Involve the transfer of development rights from farms within the township but outside the ULL (sending area).

Conformance with criteria 1-5 would make a project eligible for up to one additional dwelling unit per acre (i.e. increase the base 3.5 dwelling units per acre to 4.5) and criteria 6 would make the project eligible for an additional one dwelling unit per acre on a single family residential project or a multiple family project on land zoned for multiple family use (i.e. increase the base 3.5 dwelling units/acre to 5.5 if all six criteria were met). In order to implement this bonus, both the city and township Zoning Ordinances will need to be amended accordingly.

The urban limit line committee also recommended that the city and township planning commissions meet to review these criteria at least every five years and possibly more often if the situation warrants it. If there is a need to change the ULL before the statutorily required five year review and update of this Plan, it will be necessary to amend the maps and possibly the text of this Plan to reflect the change.

JOINT PUD REVIEW AND APPROVAL POLICY

The city and the township each jointly review projects within the ULL against the same set of planned unit development (PUD) provisions. This ensures that proposed projects meet the requirements of each ordinance and will be annexed into the city as a conforming use. The standards, procedures and results have worked well and no changes are proposed.

TOWNSHIP ANNUAL BUILDING PERMIT POLICY

Most of the land in the township is in the A-1 or A-2 zoning districts. In order to protect agricultural land, new single family dwellings are strictly limited. Caps of not more than 1% new dwelling units (4/year in 2004) in the A-1 District and not more than 2%/year (6/year in 2004) in the A-2 District are in place. A couple of years over the past 15, there have been more applications than available permits and a random selection process was used. Those not receiving permits in the first year received them in the next year, although this is not guaranteed by the process. New homes are also limited to lots of not more than two acres in order to limit loss of agricultural land. This policy is embodied in Chapters 8 and 9 of the Township Zoning Ordinance. It has worked well. By restricting the number of allowed new residences in agricultural areas, farmers are not subjected to complaints from non-farm residents for the nuisances that typically accompany agricultural operations (like noise, dust, odors, chemical sprays, etc.). Similarly, not more than 20 acres/year of farmland outside the ULL was lost in recent years. This is in sharp contrast to all adjoining jurisdictions except Blumfield Township which have no cap on the amount of land used for new non-farm residences or on the number of non-farm

residences that may be constructed in a year. As a result, farmland in most adjoining townships is rapidly diminishing. Blumfield Township uses the same limitations on building permits in the A-1 and A-2 zones that Frankenmuth Township uses. It is the intent of this Plan that the cap on the number of dwelling units allowed in the A-1 and A-2 Districts in the Township Zoning Ordinance be continued, and that its efficacy and appropriateness continue to be reexamined every five years as is already required by Ordinance. If it is found that the policy needs to be adjusted, the text of this section of the Plan may also need to be updated as well.

JOINT PA 425 POLICY

Another tool some communities use is PA 425 (of 1984) Agreements. These are typically agreements between two or more communities where tax base associated with a new development is shared between the community in which the development occurs with the community providing the sewer, water and/or other public services. State law only permits PA 425 Agreements where there is some significant economic development benefit to the community, such as a source of permanent jobs. Frankenmuth Insurance Company has purchased property outside the ULL on the west side of the city, and may someday propose a new campus style development which would require public sewer and water from the city. Because the township does not wish to extend the ULL when there is so much undeveloped land within the ULL, but may be willing to support such development if there is a PA 425 Agreement, there becomes a need to have criteria to guide review and approval of such projects. This is true whether a potential PA 425 Agreement involves the Frankenmuth Insurance Company or any other entity. The ULL Committee carefully considered this question and offered a recommendation which was refined into the following policy.

425 Agreement Process

The first step in the process after a request for a PA 425 Agreement has been made would be to review the request to determine if the proposed project can meet the criteria listed below. If the project does not meet the established criteria it would not be given any further consideration. If the project does meet the criteria, then the second step in the process would be for the city and township to negotiate the actual terms of the 425 Agreement itself.

425 Agreement Criteria

A proposed project seeking approval of a 425 Agreement is required to meet all of the following criteria:

- 1. Both the township board and city council must agree that they will consider the project.
- 2. Eligible projects include: Commercial, office, light industrial, technology uses and other projects that are defined as economic development projects, or mixed use residential projects.
- 3. Exclusively residential projects are not eligible.
- 4. The property must share a common boundary with the ULL.
- 5. The developer must finance the necessary infrastructure for the project without financial assistance from the city or township.
- 6. The development must have a beneficial economic impact on the Frankenmuth community.
- 7. Only less productive agricultural land south of the Cass River should be considered if possible.
- 8. Some of the PA 425 Agreement revenue sharing dollars could fund PDR's if legally permissible and could be linked to a TDR if provided by local ordinance.
- 9. The opinions of adjacent property owners will be given careful consideration.
- 10. No 425 Agreements will be considered at this time for properties that lie inside the first half mile of the Frankenmuth Township boundaries on all four sides of the township. The purpose of this criteria is for permanent greenbelt preservation around the perimeter of the township.

PDR AND TDR POLICY

The current growth management strategy provides for an economical expansion of urban services, while also protecting agricultural land. However, many farmers in the township have taken additional measures to protect their agricultural land. In 2005 forty-six percent (9,723.79 acres) of the land in the township (20,919.06 acres) was enrolled in the State PA 116, Farmland and Open Space Preservation program. This is one of the largest enrollments in PA 116 of any township in the State. This is a program that provides a tax credit to farmers who commit to keeping enrolled lands in agriculture for the life of the agreement (from 10-99 years).

Many farmers have also expressed interest in participation in a state or local purchase of development rights program (PDR), or a transfer of development rights program (TDR). These programs involve the purchase of the development rights on farmland. Development rights are severable rights in land, similar to mineral rights or the right to sell an easement across land.

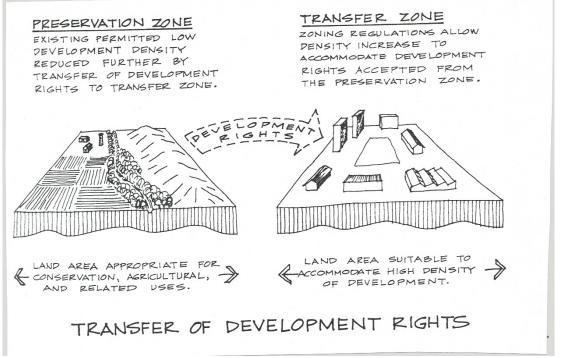
What is PDR?

Purchase of development rights (PDR) is the purchase of the right to develop or build, expressed as dwelling units per acre or floor area, from land and the permanent elimination of those rights through a deed restriction. PDR is usually funded by local taxes which are used to leverage state and/or federal PDR funds. Farmers who have sold the development rights on their land can still farm it, and can sell it to other farmers, but the sale will reflect only the farmland value of the land, not its value for development purposes. This technique has been used to permanently preserve tens of thousands of acres of land in other parts of the country. However, a local program funded only by local taxes is unlikely to raise enough money to save much farmland. Generally it takes a county-wide program, with a county-wide tax to generate enough revenue to make the program viable. The city and township planning commissions and members of the governing bodies do not favor new local taxes to fund a local PDR program. A county-wide program is under consideration, and current draft criteria would generally make farms in Frankenmuth Township a high priority for protection, because of the good soils, productivity and existing farmland protection efforts underway in the city and township. Some form of local PDR funds is necessary as match money for state and federal PDR programs. However, a major sticking point for many farmers is being taxed to save farmland on an adjoining farm. Farmers in the township can continue to participate in federal, state or county PDR programs by "self-funding" the required local match. This typically involves a voluntary reduction in the sale price of the property in return for what can be a substantial tax credit. Thus, even without a local or county source of match funding, some PDR may still occur.

What is TDR?

Transfer of development rights (TDR) is the removal of the right to develop or build, expressed in dwelling units per acre or floor area, from land in one zoning district, and the transfer of that right to land in another district where such transfer is permitted. This is accomplished by the party who uses the rights in the transfer zone (also known as the receiving zone) paying the owner of those rights in the preservation zone (also known as the sending zone) for the value of those rights. It is a market based transaction that involves government when a local ordinance permits such transfers (usually by incentive, through an increase in density) only when qualified development rights have been purchased. See Figure 9-1.

Figure 9-1 Transfer of Development Rights



Source: <u>The Latest Illustrated Book of Development Definitions</u> by Harvey S. Moskowitz and Carl G. Lindbloom, Center for Urban Policy Research, Rutgers University, 2004.

PDR and TDR Policy

While there is support for PDR and TDR policies among local government officials and knowledgeable citizens, support for a full fledged PDR policy that involves any new taxes or a TDR policy that involves higher density within the ULL is much more tepid. At a Town Meeting in June, 2004 support was just over fifty percent for such a policy, but 26% of citizens present neither supported nor opposed such a program. This is likely because of the lack of knowledge of PDR and TDR programs and how they can help to implement farmland protection. Following is a limited PDR and TDR policy that could be expanded in the future if local support were to expand.

A countywide PDR program should be created and funded with new revenues at the state level such as a small food tax, real estate transfer tax, or bond. Local farmers are also encouraged to continue to maintain enrollment in PA 116 and to self-fund the match for state and federal PDR programs.

TDR was enabled through the non-contiguous PUD language added to the Township and City-Village Zoning Enabling Acts in Dec. 2003 (Public Acts 227-229 of 2003). Like PDR, TDR cannot be mandated, it must occur at the request of the landowners involved. TDR is endorsed by this Plan if in a form similar to the following.

First the township declares all the land in the A-1 and A-2 District outside the boundary of the ULL as the sending zone (land qualified for preservation) for TDR. All the undeveloped land planned and zoned for residential use inside the ULL would be identified as the transfer zone or receiving zone. The city and township agree to permit a density increase above the base 3.5 dwelling units/acre if a TDR were to occur. The bonus would not be more than 1-2 dwelling units/acre for single family or multiple family (would have to occur on land zoned multi-family). TDR approval would also depend on

a high quality project design that adequately buffered adjoining property and had a high aesthetic component. This could be accomplished by on-site open space, landscaping, donation of a public park, very high quality exterior building materials, very good layout, etc.—all of which would be specified in the zoning ordinance.

The developer would be responsible for approaching farmers and negotiating to buy development rights. A pre-application conference would be required prior to any design work, to lay down the parameters for a quality design that was worthy of the bonus density. The project would be approved as a PUD in the same manner as presently is done. If the TDR is approved, then a notice would be filed with the deed of the land from which the development rights have been sold indicating such. The city and township would need to keep very accurate records of where TDR has occurred (both sending and receiving lands).

What would need to be changed to implement TDR?

The Township and City Zoning Ordinances would both need to be amended to utilize this technique.

TDR is unlikely to work without a density bonus as described above. The bonus has to be enough to make it economically worthwhile to both the farmer and developer without being so much the neighbors in the receiving area oppose TDR projects. Nothing more than the amounts described above should be considered, and a detailed economic analysis may reveal that something less would be feasible. Such study should be performed before instituting a bonus density. It may also be necessary to prepare design guidelines so developers know what is expected and permissible to obtain the density bonus for good design.

TDR can work in addition to a PDR program and in addition to the existing PA 116 agreements. No new taxes are required for a TDR program, unlike a PDR program which would require new taxes to fund public purchase of development rights.

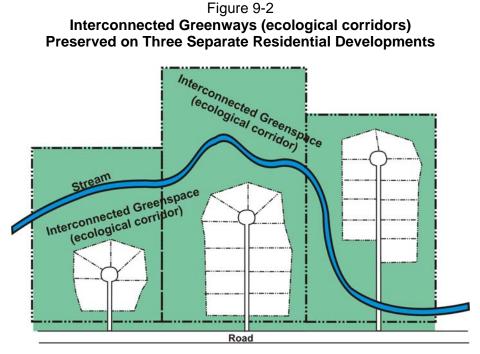
JOINT GREENWAYS STRATEGY

An important new goal of this Growth Management Plan is to establish a linked greenways system in Frankenmuth City and Township. The elements of this system and implementation approaches will be specified in a separate Greenways Plan and updates to the Park and Recreation Plan. A greenways system would include:

- Interconnected open space that serves as ecological corridors to help protect and foster animal and plant wildlife and as a community amenity that preserves rural character. Ecological corridors would have no public access except for portions of public parks and preserves dedicated for such use.
- Recreational greenway trails to encourage walking and bike riding for exercise, to experience the outdoors and as an alternative to automobile travel. Residents could travel to parks, schools, and other places of interest without needing to use the car.

Establishment of a greenway system usually requires volunteer action by property owners to manage select portions of their properties as open space (such as woodlands), acquisition of easements or property from willing sellers, and the dedication of appropriate portions of new developments to open space.

As very large parcels are developed for residential subdivisions, dedicated open space should be located in areas of the parcel that will connect to open space on adjacent parcels. (See Figure 9-2.) Site plan review standards in the Zoning Ordinance can aid in coordinating this process but a Greenways Plan is needed to document open space assets that should be included in interconnected open space and to provide direction to developers.



Source: Adapted from the Benzie County Open Space and Natural Resources Protection Plan

In general, the desirable natural elements of an interconnected open space system include floodplains, wetlands, woodlands, streams, drains, and steep slopes. These are areas that should be protected from intensive development, and connecting them with undeveloped corridors will be important in preserving the desired character in the Frankenmuth Community as it develops in the future. Cultural elements that should be connected by trails and sidewalks include schools, parks, museums and major activity centers.

The Greenways Plan will take some time to prepare. It should be prepared by a committee made up of members of the Township and City Planning Commissions, the Parks and Recreation Commission, and each governing body. The public should be active participants in its preparation.

Greenway trail routes will need to be identified. Initial ideas are illustrated on Map 7-5. Some of these should be routed cross-country while others will need to be placed in road rights-of-way with support of the appropriate road authorities. Trails will need to be designated for use by intended users which will vary depending on the trail.

Implementation elements of the Greenway Plan are likely to include:

- The identification of priority open spaces and recreational greenways for acquisition and coordination with developers.
- Methods for acquiring ownership or purchase of easements in open space and recreation property by purchase and donation. Educational assistance should be provided to land owners regarding the benefits and tools for land preservation.
- In new development projects, open space and recreational space should be protected, consistent with the Greenway Plan and coordinated between adjoining properties to make useful links.
- Protection of rural character along roads in the township.
- The construction of a township trail system linked to the sidewalk system in the city.
- Provision of greenway trail connections between the township and adjoining jurisdictions as the opportunity arises.

A greenway system can take decades to implement, but the longer preparation of a Greenway Plan is delayed, the more difficult it will become. Each new development presents new opportunities and potentially new threats to implementation of a Greenway Plan.

See Appendix A -- Cass River Greenway Plan

JOINT TOURISM STRATEGY

Frankenmuth has enjoyed considerable success attracting tourists over the past half century. With about 2 million visitor days per year, Frankenmuth is ranked as one of the top tourist destinations in Michigan. However, other destinations are starting to attract more visitors and some Frankenmuth business owners report a declining number of visitors.

Much of Frankenmuth's attraction has been the character of the community. In large part this is the Bavarian theme in the commercial and institutional buildings, but the character of the community is also due to:

- Attention to cleanliness and good repair in both the commercial center and residential areas;
- Attractive landscaping;
- Being a distinctive, compact, small city, separated from the typical Interstate Highway sprawl by several miles of farmland.

In order to maintain and boost tourism in Frankenmuth, some strategies the community needs to continue to explore include:

- Continuing to maintain or expand those positive character features of the community that people enjoy and remember (listed in the bullets above). In order to do this, the community will need to grow at a sustainable pace and in a pattern it can afford to maintain at a high standard. Otherwise, the community will not be able to keep up the high standards travelers have come to expect of Frankenmuth.
- Seek to diversify the types of attractions it offers, including more recreational opportunities.
- Keep attuned to changes in the tourism market in order to respond to the interests of travelers. This means finding out if the repeat clientele are shifting their interests and how the interests of people who seldom or never go to Frankenmuth could be met.

These are largely studies and activities that are initiated by the Frankenmuth Chamber of Commerce and Convention and Visitors Bureau, and the Downtown Development Authority. The city presently provides staff support to the Downtown Development Authority and will need to continue to support and nurture its activities, guided by this Plan and special plans prepared by all of these entities. The commercial future of Frankenmuth depends on it.

Chapter 10 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 Growth Management Plan and the City and Township Zoning Ordinances. The zoning districts in both the city and township are briefly described, and the last major section of this Chapter presents a list of proposed changes to each jurisdiction's zoning ordinance which are desirable to make in order for the zoning ordinances to more closely conform with this Plan.

WHAT IS A ZONING PLAN?

A "zoning plan" is a plan referred to in the Michigan Zoning Enabling Act, PA 110 of 2006 and the Michigan Planning Enabling Act, PA 33 of 2008. The Michigan Zoning Enabling Act requires municipal zoning ordinances to be based on a plan designed to promote the public health, safety, and general welfare, to encourage the use of lands in accordance with their character and adaptability, to limit the improper use of land, to conserve natural resources and energy, to meet the needs of the State's residents for food, fiber and other natural resources, places of residence, recreation, industry, trade, service and other uses of land, to insure that uses of the land shall be situated in appropriate locations, to avoid the overcrowding of population, to provide adequate light and air, to lessen congestion on the public roads and streets, to reduce hazards to life and property, to facilitate adequate provision for a system of transportation, sewage disposal, safe and adequate water supply, education, recreation and to conserve the expenditure of funds for public improvements and services. The Michigan Planning Enabling Act requires that a municipal master plan must include a zoning plan for various zoning districts controlling the height, area, bulk, location and use of buildings and premises. The zoning plan shall include an explanation of how the land use categories on the future land use map relate to the districts on the zoning map. These matters are regulated by the specific terms of each jurisdiction's zoning ordinance.

RELATIONSHIP TO THE GROWTH MANAGEMENT PLAN

This Joint Growth Management Plan sets forth the vision, goals, objectives and policies for growth and development in Frankenmuth City and Frankenmuth Township for approximately the next twenty years. It includes a specific strategy for managing growth and change in land uses and infrastructure in Frankenmuth over this period, and, as required by statute, 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 Joint Growth Management Plan, is intended to guide the implementation of and future changes to the zoning ordinances of both the city and the township.

DISTRICTS AND DIMENSIONAL STANDARDS

Following are the general purposes and characteristics of zoning within the City of Frankenmuth and Frankenmuth Township. The specific purposes of each jurisdiction's individual zoning districts are listed in the specific district provisions of their respective zoning ordinances. The Article references indicate where detailed ordinance language for each district is located within each zoning ordinance. Table 10-1 presents a summary of the key dimensional standards in each district in the City of Frankenmuth while Table 10-2 addresses these standards in Frankenmuth Township.

City of Frankenmuth Residential Districts

The following zoning districts are considered "residential districts."

Article 5	RE, RA-1, & RA-2 One Family Residential Districts
Article 6	RA-3 One Family Residential District
Article 7	MHR Mobile Home Residential District
Article 8	RCD & RCM Multi-Family Residential Districts.

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 8,500 square feet to one half acre. The R-PUD district also permits residential development and applies to property outside the existing city limits, but inside the urban limit line.

Commercial Districts

The following zoning districts are considered "commercial districts."

Article 9	O Office Building District
Article 10	B-1 Convenience Commercial District
Article 11	B-2 Local Business District
Article 12	B-3 Highway Commercial District
Article XX	B-4 Tourist Commercial District

The basic purpose of these districts is to provide opportunities for regulated commercial or office activities serving both local residents and visiting tourists. The B-1 Convenience Commercial District is intended to provide for minor shopping areas at the fringes of residential neighborhoods to provide for the day-to-day needs for goods and services. The B-2 Local Business Districts are designed for the business and shopping needs of persons in the city's market area. The B-3 Highway Commercial District says it is designed to furnish areas served typically by the Local Business Districts with a variety of automotive services and other highway-oriented commercial enterprises. However, this terminology belies the more fundamental function of the areas zoned into this district. The northern B-3 area is largely general business and provides much of the day-to-day retail needs of the community. The southern B-3 area is largely tourist oriented commercial. Minimum lot sizes range from 9,600 square feet to 15,000 square feet. Serious consideration should be given to splitting the northern portion of this district out and creating a new B-4 district for general business or merging the existing land in B-3 with B-2 district if appropriate. Consideration should also be given to renaming the rest of the existing B-3 District as Tourist Commercial District.

The following recommendation from the 2005 Plan has been implemented with an amendment to the City Zoning Ordinance:

Consideration should also be given to raising the height limitation in the Tourist Commercial District to 45 feet and increasing the number of permissible stories to 3 or 4. This would permit, over time, a more efficient use of the land and parking for tourists. Residential use should be permitted on upper stories to broaden the range of housing options available in the community and increase rents to landowners who invest in new buildings downtown. Such a change however, must be done consistent with the ability of the Fire Department to provide adequate fire protection.

Table 10-1 City of Frankenmuth Zoning District Regulations

					Side Setback			
	Minimum Lot Area	Minimum Lot Width	Front Setback	Least One	Total of Two	Rear Setback	Max Height	
A Agriculture District	2 acres	300 ft.	30 ft.	100 ft.	220 ft.	50 ft.	25 ft.	
RE One Family	Average: 18,000 s.f.	120 ft.	30 ft.	12 ft.	25 ft.	50 ft.	25 ft.	
Estate	Smallest: 15,000 s.f.	110 ft.		12 11.	20 11.	Smallest: 35 ft.	20 11.	
RA-1 One Family	Average: 12,000 s.f.	100 ft.	25 ft	10.#	20.4	25 ft	25 ft	
	Smallest: 10,800 s.f.	90 ft.	25 ft.	10 ft.	20 ft.	35 ft.	25 ft.	
RA-2 One Family	Average: 9,000 s.f.	80 ft.	25 ft.	8 ft.	18 ft.	35 ft.	25 ft.	
	Smallest: 9,000 s.f.	80 ft.	2011.	8 π.	10 IT.	30 II.	25 II.	
RA-3 One Family	Average: 8,500 s.f.	70 ft.	25 ft.	8 ft.	18 ft.	35 ft.	25 ft.	
	Smallest: 8,500 s.f.	70 ft.	25 H.					
MHR Mobile Home District	5,000 s.f.	50 ft.	15 ft.	10 ft.	20 ft.	15 ft.	20 ft.	
RCD Two Family District	12,000 s.f.	100 ft.	25 ft.	10 ft.	20 ft.	30 ft.	25 ft.	
RCM Multi-Family District	20,000 s.f.	120 ft.	25 ft.	12 ft.	24 ft.	45 ft.	25 ft.	
O Office Building	12,000 s.f.	100 ft.	25 ft.	10 ft.	20 ft.	30 ft.	35 ft.	
B-1 Convenience Commercial	9,600 s.f.	80 ft.	50 ft.	15 ft.	30 ft.	30 ft.	30 ft.	
B-2 Local Business	None	None	4 ft.	2 ft.	2 ft.	20 ft.	45 ft.	
B-3 Highway Commercial	15,000 s.f.	100 ft.	50 ft.	15 ft.	30 ft.	30 ft.	45 ft.	
l Industrial	15,000 s.f.	100 ft.	50 ft.	20 ft.	40 ft.	30 ft.	35 ft.	
FP Flood Plain	15,000 s.f.	100 ft.	30 ft.	12 ft.	25 ft.	35 ft.	25 ft.	

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

Industrial Districts

The following zoning district is considered an "industrial district." Article 13 I Industrial District

The basic purpose of the Industrial District is to accommodate wholesale activities, warehouses, and industrial operations whose external, physical effects are restricted to the area of the district and in no manner affect the surrounding districts in a detrimental manner. The minimum lot size in the Industrial District is 15,000 square feet. The language in this district should be refined to clarify that only light industrial, health, high tech and associated uses are permitted. Commercial uses should continue to be allowed on lots abutting other commercial uses. Proper landscaping and buffering requirements are essential.

Flood Plain District

The Flood Plain District permits uses such as loading and unloading areas, parking lots, storage yards and open-type public and private recreation facilities, such as public parks, golf courses and recreational lakes. No more intensive uses should be permitted, except on a temporary basis.

Planned Unit Development (PUD) Districts

The following zoning districts are considered "planned unit development districts."Article 23R-PUD Residential Planned Unit DevelopmentArticle 24CL-PUD Commercial Local Planned Unit Development; CT-PUD
Commercial Tourist Planned Unit DevelopmentArticle 25I-PUD Industrial Planned Unit Development; IS-PUD Industrial Special
Use Planned Unit Development

The purpose of PUD Districts is to permit flexibility in the regulation of land development; to encourage innovation in land use and variety in design, layout, and type of structures constructed; achieve economy and efficiency in the use of land, natural resources, energy and the provision of public services and utilities; and to provide useful open space. Development in these districts will largely come from land outside the city limits, but within the urban limit line and must be annexed to the City of Frankenmuth. Development must be contiguous to areas where municipal utilities are in place sufficient to meet the necessary capacity for the proposed development or else the developer must pay the costs of extending them. The areas retain the PUD classification once annexed. Projects are jointly reviewed by the township and the city prior to annexation and the township has the same PUD requirements as the city so that once annexed, land is not nonconforming. The term "special use" should be dropped in the title and text of the IS-PUD.

Frankenmuth Township

Rural Districts

The following zoning districts are considered "rural districts."

Section 701	CG-1 Conservation Greenbelt District
Section 801	A-1 Rural Agricultural Districts
Section 901	A-2 Agricultural Districts

The Conservation Greenbelt District is intended to preserve open land areas, natural features, wildlife areas and scenic landscape. The A-1 Rural Agricultural District and the A-2 Agricultural District are intended to ensure that land areas within Frankenmuth Township which are well suited for production of food and fiber are retained for such production, unimpeded by the establishment of incompatible uses that would be detrimental to agriculture. Single family homes are permitted, but the number per year is presently capped by a formula (four and six units/year in 2004, respectively) to minimize the impact of residential uses in the agricultural districts and to preserve farmland. Non-farm dwellings are also restricted to not more than two acres to preserve farmland.

	Frankenmuth Township Zon				etback		Max Height		
	Minimum Lot Area	Maximum Lot Size	Minimum Lot Width	Front Setback	Least One	Total of Two	Rear Setback	Stories	Feet
CG-1 Conservation Greenbelt	5 acres	-	330 ft.	60 ft.	-	20 ft.	40 ft.	2 ½	35 ft.
A-1 Rural	Non-farm du: 40,000 s.f./du	Non-farm du: 2 acres Special	200 ft. at front bldg. line Max lot	60 ft.	15 ft.	35 ft.	40 ft.	2 1/2	35 ft.
Agricultural*	Farm SF du: 40 acres	Use: 10 acres	width to depth ratio 1/2	00 11.	10 11.	55 H.	- 0 n.	2 /2	55 H.
A-2 Agricultural**	Single Family: 40,000 s.f. /du	Non-farm du: 2 acres	200 ft. at front bldg. line	60 ft.	15 ft.	35 ft.	40 ft.	2 1⁄2	35 ft.
	Two-Family: 60,000 s.f. /du Farm SF du:	Special Use: 10 acres	Max lot width to depth ratio 1/2						
R-PUD Residential Planned Unit Development	40 acres 0.2 Single-Family detached shall meet regulations applicable in RA-2 District defined in City of Frankenmuth Zoning Code; Two-Family residential shall meet regulations applicable in the RCD District as defined in City of Frankenmuth Zoning Code; Multi-family residential shall meet regulations applicable in the RCM District as defined in the City of Frankenmuth Zoning Code.								
CT-PUD Commercial Tourist Planned Unit Development	Commercial Local use and Commercial Tourist use shall meet the regulations applicable to the B-3 District, as defined in the City of Frankenmuth Zoning Code.								
CL-PUD Commercial Local Planned Unit Development	Commercial Local use and Commercial Tourist use shall meet the regulations applicable to the B-3 District, as defined in the City of Frankenmuth Zoning Code.								
I-PUD Industrial Planned Unit Development	Industrial development shall comply with all related applicable regulations and ordinances of the City of Frankenmuth.								
IS-PUD Industrial Planned Unit Development	Industrial development shall comply with all related applicable regulations and ordinances of the City of Frankenmuth.								

Table 10-2 Frankenmuth Township Zoning District Regulations

s.f. = square feet

SF = single family

du = dwelling units

ft. = feet

Notes:

*Building permits for new residences are currently permitted in the A-1 District according to a formula permitting a rate of 1% per year (or 4 dwelling units in 2004). If applications for more than four come in, there is a random selection method to determine who gets the permits. See Section 802 of the Zoning Ordinance.

**Building permits for new residences are permitted in the A-2 District according to a formula permitting a rate of 2% per year (or 6 dwelling units in 2004). If applications for more than six come in, there is a random selection method, unless there are unused permits from the previous year, in which case the Township Board may authorize use of these previously unused permits. See Section 902 of the Zoning Ordinance.

Planned Unit Development (PUD) Districts

The following zoning districts are considered "planned unit development districts." These are the same as in the City of Frankenmuth.

Section 2401	R-PUD Residential Planned Unit Development
Section 2411	CL-PUD Commercial Local Planned Unit Development; CT-PUD
	Commercial Tourist Planned Unit Development
Section 2421	I-PUD Industrial Planned Unit Development; IS-PUD Industrial
	Special Use Planned Unit Development

Development in these districts must be annexed to the City of Frankenmuth and are jointly reviewed against the same standards and according to the same review and approval procedure. The areas retain the PUD classification once annexed. The term "Special Use" should be dropped in the title and text of the IS-PUD.

PROPOSED CHANGES TO ZONING ORDINANCES

Following is a list of changes that could be made to the City and Township Zoning Ordinance to be consistent with the policies in this Plan.

- Add language to authorize bonus density for development within the urban limit line if it meets standards for good design and/or implements TDR as outlined in Chapter 9 and detailed in the Zoning Ordinance.
- Add standards to implement good access management such as proper separation of driveways, shared driveways and parking lots, consolidation of driveways where there are too many, and frontage roads or rear service roads for high volume land uses, per the MDOT <u>Access</u> <u>Management Guidebook</u>.
- Rename IS PUD Zone to I-PUD.
- Add authority to require impact studies for very large projects.
- Add authority to permit review of proposed projects by outside engineers, planners or other experts as desired by the city or township, with costs borne by the applicant.
- Add standards to better buffer residential from non-residential land uses.
- Add provisions to require more street trees to be planted as a part of new developments.
- Add standards to better protect water quality including:
 - Limit imperviousness.
 - Establish vegetative buffers along rivers, streams and drains.
 - Limit the use of fertilizer adjacent to drains, streams and the Cass River.
 - Promote agricultural best management practices and generally accepted agricultural management practices.
 - Keep animal waste out of surface waters.
 - Protect groundwater and wells from contamination.
 - Protect wetlands and woodlands.
 - Keep new structures out of floodplains.

Following is a list of changes that could be made to the City Zoning Ordinance to be consistent with the policies of this Plan and to address issues that arise in the day-to-day administration of the ordinance.

- Add a B-4 District and consider renaming the B-3 District as described earlier in this chapter.
- Change the R-PUD Zoning District on the south side of East Tuscola from the City's Boat Launch facility to the easterly Urban Limit Line from R-PUD to RA-1.

User Friendly Issues

Consider making the flowing changes to make the ordinance easier to use:

- Relocate swimming pool provisions to be easier to find.
- Cross-list church building setbacks in setbacks section (see Section 5.32(b).
- Add diagrams, illustrations and more tables to make ordinance easier to use.
- Relocate other uses Section 5.149.
- Relocate PUD sections in the Uses Section vs. at the end of the ordinance.

Legal Requirements

Consider making the following changes to conform with statutory and case law changes:

- Regulation of AFC Homes/Child Care Facilities (i.e. less than 6 allowed by right, less than 12, 18, to conform with state regulations).
- Changes to conform with Religions Land Use & Institutionalized Persons Act. Churches need to be a use by right in at least one zoning district.
- Revise cell tower requirements to conform with Telecommunications Act of 1996 (STRODS, communication/cell towers).
- Update references in the Zoning Ordinances to the new Michigan Zoning Enabling Act, PA 110 of 2006 and the Michigan Planning Enabling Act, PA 33 of 2008.

Other Issues

Consider making the following changes to address other issues that arise with ordinance administration:

- Consider changing parking space size to provide flexibility (i.e. 180 s.f. spaces arranged either 9' x 20' or 10'x 18' or a similar sized dimension).
- Add lighting requirements (i.e. controlling lumens or candle power per foot as measured with a light meter).
- Clarify definition of "grade".
- Better specify/offer options for buffer/berm/fencing/landscape screening requirements (e.g. parking lots abutting residential properties across the street).
- Modify accessory building requirements to graduate size based on property size/square footage.
- Explore options to ensure the zoning ordinance provides a sufficient range of options for affordable housing.

Following is a list of changes that could be made to the Township Zoning Ordinance to be consistent with the policies of this Plan and to address issues that arise in the day-to-day administration of the ordinance.

- Re-examine billboard regulations with an eye to reducing the number of billboards along Junction Road over time, as they significantly diminish the enjoyment of the rural character of the township for visitors.
- Re-examine agricultural building setbacks to ensure an adequate setback from the road, especially at intersections.

Chapter 11 IMPLEMENTATION RECOMMENDATIONS

INTRODUCTION

The city could be characterized as the "heart" of the Frankenmuth community. It is the home for most of its residents and the source of most of its local jobs. It is the educational, cultural and recreation center of the community.

The township could be characterized as the "soul" of the Frankenmuth community. It is largely farmland and helps define both the small town and rural character of the City by providing a greenbelt around the city. Land in the township is farmed by farmers with a long and deep commitment to agriculture. It is the home of many of the oldest families in the community and many centennial farms.

This Plan was prepared to protect both the heart and the soul of Frankenmuth. However, as important a benchmark as this updated Growth Management Plan represents, the initiatives proposed in this Plan will not implement themselves. It will take continued support and commitment for many years.

The central ingredients to successful Plan implementation will be:

- Commitment by the Planning Commission, the Board of Trustees, and staff of the township.
- Commitment by the Planning Commission, the City Council, and staff of the city.
- A citizenry better educated on the vision in this Plan. Information about farmland protection and implementation of the urban limit line strategy 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 growth management 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, each Planning 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 the Township Board or City Council with any capital improvements or public land acquisitions or disposals, and the five-year Plan update. These are discussed below.

ANNUAL TASKS

As required by the Municipal Planning Act and the Township Planning Act, each Planning Commission should prepare an annual report to their respective governing body on all the activities it undertook in the previous year, with a special focus on actions taken to implement this Plan. 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.

TOP PRIORITIES

The Planning Commission cannot be expected to implement all of the measures listed in Chapter 5 (Vision, Goals, and Objectives), Chapter 6 (Future Land Use), Chapter 7 (Infrastructure), Chapter 8 (Transportation), Chapter 9 (Growth Management Strategy) and Chapter 10 (Zoning Plan) alone. Many of these can only be accomplished with support from the governing bodies of the city and township 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.

One approach to establishing priorities is to use the following guidelines:

- Establish as a high priority those actions that are the precursor to other actions or initiatives.
- Those actions that are assigned to a particular group (like the Planning Commission) elsewhere in this Plan are a high priority.
- A lower priority may be those actions that are not assigned to a group or broadly identify the "township" or the "city" as the responsible party.
- If an action does not list a responsible party, unless the entity is implied or clearly known, it remains a lower priority until a group or agency steps forward.

THE FOLLOWING ACTIVITIES WERE DESCRIBED IN THE 2005 <u>& 2010</u> GROWTH MANAGEMENT PLAN<u>S</u> AS ACTIVITIES THAT SHOULD BE THE KEY PRIORITIES OF EACH PLANNING COMMISSION AND GOVERNING BODY FOR THE NEXT FIVE YEARS. THE ACTIVITIES HAVE BEEN GROUPED INTO CATEGORIES INDICATING THE AMOUNT OF PROGRESS FROM 2005 TO <u>2015</u> 2010:

This activity is classified as "Project has been accomplished prior to 2015 Plan Adoption:"

- Construct a permanent facility for community festivals, events and an ice skating facility in Heritage Park. The Harvey Kern Community Pavilion accomplished this goal.
- The City Planning Commission, Chamber of Commerce and Economic Development Corporation should work with business owners to develop a model sign ordinance for the Frankenmuth community that promotes both the viability of individual businesses and high quality scenic character.
- Explore other options for a cost effective public water supply.
- Support efforts to keep the Cass River Dam and dike in good repair and look for opportunities to install a facility for canoes and kayaks to traverse the dam.
- Coordinate efforts to preserve water quality of creeks and the Cass River with other communities in the Saginaw Watershed.
- First phase installation of infrastructure in the Frankenmuth Business Park, the location of a new facility for light industrial manufacturing, and job growth.

This activity is classified as "some ordinances have been revised":

- Update the Township and City Zoning Ordinances to be consistent with this Plan as outlined in Chapter 10. In particular, this will require development of bonus density criteria for land within the urban limit line that exhibits exemplary design and/or utilizes TDR.
- <u>The creation and rezoning of property to a Mixed Use Planned Unit Development (MU-PUD)</u> Zoning District.

These activities are classified as "The Parks & Recreation Commission is pursuing these goals:" *Editorial Note: The activities listed underneath this category have been relocated.*

These activities are classified "as on-going processes":

- Educate all citizens about the vision, goals, objectives, and policies of the updated Growth Management Plan and provide technical assistance in the integration of these elements into property owner development and redevelopment efforts.
- Reexamine the boundaries of the urban limit line (ULL) as land within the line is converted from agricultural to other uses.

- Encourage farmers to (re)enroll in PA 116 and self fund PDR until other funding sources become available.
- Examine high crash intersections with an eye to making intersection improvements that increase safety and reduce crash incidence.
- 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 to the township for statutory review and comment.
- Exercise the inter-jurisdictional review authority of draft plans and plan amendments in ways to improve local decisions by guiding decisions toward integrated and coordinated solutions based on the core policies in this Plan.
- 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 city and township to modernize planning and zoning enabling legislation and to authorize or use new tools to better manage growth and preserve open space.
- At least once each five years, the Growth Management Plan should be thoroughly reviewed and jointly updated by the planning commissions of the city and the township with support from the township board and city council.
- The city and township should employ capital improvements planning to phase investment in new infrastructure and improvements within the urban limit line.
- Develop and maintain a tree management program that establishes and ensures a continuous tree canopy throughout the city and especially along public streets.
- The Frankenmuth City and Township Planning Commissions, the Parks and Recreation Commission, the Michigan Department of Natural Resources and Environment and local jurisdictions should jointly cooperate in the development of adequate public boat launch sites with off-street parking, buffered from adjacent properties.
- The City and Township Planning Commissions should work with sports and recreation groups, the Chamber of Commerce, state officials, the Saginaw Conservation District, the Saginaw Bay Watershed Initiative Network and other local units of government to continue monitoring, education and enforcement efforts for management of the health of the Cass River.
- The city and township should continue participation in regional management of solid waste and recycling.

This activity is classified as "no significant action has been required during the last five years":

• Review other land development regulations in the township (such as land division and subdivision regulations) and the city and update as necessary to be consistent with this Plan and each other.

This activity is classified as "based on current criteria, no changes have been made since 2000":

• Use the new (ULL) criteria to guide changes in the ULL.

This activity is classified as "No 425 Agreements are under consideration at this time":

• Use the 425 Agreement criteria. as established in 2005, to guide future PA 425 Agreements.

This activity is classified as "No County PDR program is forthcoming at this time:"

• Encourage Saginaw County to proceed with a PDR program for farmland protection.

This activity is classified as "The current State of Michigan budget is not able to support a funding source for PDR of farmland."

• Support state efforts to create a secure funding source for PDR of farmland.

THE FOLLOWING ACTIVITIES WOULD IMPLEMENT SPECIFIC <u>2015 AND AFTER</u> GOALS OR OBJECTIVES OF THIS PLAN AND SHOULD BE PURSUED AS THE OPPORTUNITY IS PRESENTED OR IF THE NEED BECOMES ACUTE.

These activities are classified as "Projects that have been to be accomplished:"

- Adopt sign ordinances that prohibit billboards but provide for business identification and communication of other essential messages through alternate means, including small and cluster signs.
- Adopt design guidelines for lighting that encourage shaded lights and limit upward shining lights.
- Implement the "Cass River Watershed Management Plan" which was approved by MDEQ and EPA in 2014. See Appendix A Cass River Greenway Plan.

These activities are classified as "Projects supported by the Cass River Greenways Committee:"

In addition to the "as on-going processes" listed above between the years 2010-2015, Tthese activities are also classified "as on-going processes":

- Encourage more tourist-based commercial uses in the southeast corner of the city, near Bronner's and north to Heritage Park along Weiss St.
- Accommodate more local commercial businesses along Main Street north of the Bavarian Mall when the demand becomes evident.
- Encourage land located behind the commercial frontage on the east side of Main Street and north
 of Schleier <u>Street Road</u> to be residentially developed.
- Final phases of installation of infrastructure in the Frankenmuth Business Park for the locating of light industrial manufacturing facilities and job growth.
- Protect scattered woodland areas in the township and along the Cass River in the city as land is developed.
- Improve barrier free access at public parks and recreation facilities.
- Extend existing roads in the township as the opportunity is presented or abutting land is developed per Map 8-5.
- Develop or maintain existing community programs for people of all ages to keep Frankenmuth heritage and traditions alive.
- Maintain a greenbelt of agricultural land around the city.
- Support development of a new Tourism Strategy and assist as appropriate with implementation.
- Maintain a unified street and public facility sign system that reflects the character of the City.
- Provide educational opportunities for local elected and appointed officials on land use issues, planning and regulation.
- Encourage local businesses and the Chamber of Commerce to work with area schools and regional colleges and technical schools to develop training and continuing education programs and placement programs for potential and existing workers.
- Support applications of agricultural land owners to participate in agricultural land preservation programs.
- Actively sSupport legislation to develop and adequately fund an agriculture preservation trust fund and authorize local transfer of development rights programs.
- The Frankenmuth Township Planning Commission, Township Board, the Frankenmuth City Planning Commission and City Council should support transportation and other improvements that facilitate the movement of agricultural goods within the County and the region.

- The city and township should work with the Downtown Development Authority, the EDC and Chamber of Commerce to attract new tourism businesses that are compatible with existing businesses and diversify the current mix of tourism businesses.
- When pursuing efforts to attract new jobs, the city and township and economic development groups should seek out and solicit businesses which are environmentally responsible and that honor design guidelines for historic and small town centers.
- The city and township and other agencies, including the school district, should agree to locate future public facilities within walking distance of residents where ever possible.
- The city and township governments should work together to protect open space, especially scenic vistas and corridors, from loss through land fragmentation and/or uncoordinated, poorly planned or designed development.
- Retain or enhance scenic qualities along road corridors and downtown.
- Work with local developers and utility companies to place utility lines underground where feasible or relocate in separate corridors away from roads.
- Create bike paths along key city streets as they are repaved/extended/restriped where warranted and along the Cass River.
- Explore a public-private partnership to build and operate a year round fitness/activity center with an appropriate mix of indoor recreational facilities.

This activity is classified as "Under review by the Parks & Recreation Commission:"

• Develop a full size outdoor basketball court at a public park.

This activity is classified as "Being pursued by the Frankenmuth Youth Sports Association:"

These activities are classified as "Currently under consideration:"

- Develop distinctive entry signs for major road entries into the city.
- Adopt access management regulations to preserve the growing investment in roads and streets.
- Develop illustrated design guidelines that define the Bavarian character so that businesses can develop, remodel and manage their properties in a manner that protects and enhances that character.
- Priority for acquisition of new parkland should be focused on property adjacent to the Cass River.
- Encourage new developments to include easements or land dedication for interconnected trail corridors.
- Work with adjoining jurisdictions to ensure affordable housing needs in this part of the County are met.

Historical Related Items:

- Provide training for Historic District Commission members in preservation techniques and zoning procedures.
- Develop design guidelines for protecting historic character in the historic district.
- Update as needed, zoning elements pertaining to the historic district to better protect historic character.
- Encourage the preservation of historic structures and spaces still remaining in the Historic District.
- Provide residents and business owners with information on assistance programs for preserving and restoring historic properties.
- Site development in the Historic District should relate to and be compatible with adjacent buildings, land uses and the Bavarian and historic character of the community.
- The use of architectural materials, trees and shrubbery in the Historic District should emulate and improve the Bavarian and historic character.

- Ensure the safe movement of pedestrians within the city and Historic District by reducing pedestrian and automobile conflicts.
- Proposed land use changes in the Historic District should be submitted to the Planning Commission and the Historic Commission for review and approval as is provided for by ordinance.

These activities are classified as "Projects that will be considered in the future:"

- Develop scenic corridor guidelines for M-83 and East Curtis Road. These guidelines should illustrate steps landowners can take to protect scenic quality.
- The Frankenmuth Township Planning Commission should develop design guidelines that illustrate for property owners how to manage roadside areas of their properties to enhance scenic quality. This would include guidelines on vegetation, access control and signs.
- Identify and preserve the historic features of the township, with a special focus on historic farm residences and barns.
- The city, DDA and EDC should work with the Chamber of Commerce to create a public/private partnership that systematically examines the feasibility of a convention/conference center in Frankenmuth that can be financially self-sufficient.
- Extend Block Road across a bridge to a new street that parallels the river west to Weiss St. This will complete bike, pedestrian and vehicular access to all parts of the city.
- Promote action by the Department of Natural Resources and Environment to cap abandoned water wells.
- Lobby the legislature to revise the Land Division Act to provide greater local control of land division and permit platting on a faster basis with adequate protection of public interests than is presently permitted.
- The Saginaw County Road Commission, Frankenmuth City and Township should develop and implement a long term road development and multi-modal transportation plan consistent with this Joint Growth Management Plan.

These activities are classified as "Projects that are currently on hold:"

- Encourage the private sector to develop and run a trolley bus system for tourists on Main Street.
- Support efforts to reestablish public transit between Frankenmuth and other communities in the County.
- Develop a Greenway Plan which identifies trail locations and options for creating the trails, as well as identify appropriate implementation tools for acquisition of title or development rights from willing sellers, and set up funding mechanisms for implementation.
- Create a pedestrian/bicycle bridge from the northern part of Heritage Park northwest to the Frankenmuth Brewery or north to Tuscola Street across the Cass River.

Photo 11-1 Sunset



APPENDIX A **Cass River Greenway Plan**

As a result of the many references in the Master Plan to the Cass River, the Cass River corridor, natural features in the Frankenmuth area, recreation opportunities, concern over the environment, wildlife habitat preservation and water quality improvement of the Cass River; the Cass River Greenway Committee was organized in January of 2008.

Community Membership

The Cass River Greenway Committee membership consists of volunteer residents and municipal leaders from Bridgeport Township, Frankenmuth Township, City of Frankenmuth, Tuscola Township, City of Vassar, City of Caro and the Cass City area. Members of the Frankenmuth Township and City of Frankenmuth Planning Commissions are members of the Cass River Greenway Committee.

Agency Support

The Cass River Greenway Committee is strongly supported by county, state and federal agencies whose representatives are members of the committee. They include: MDNRE Water Bureau, U.S. Fish & Wildlife Service/Shiawassee National Wildlife Refuge, U.S.D.A./Natural Resources Conservation Service, National Parks Service/Rivers, Trails, and Conservation Assistance, U.M. Flint/Community Outreach, Saginaw Bay Land Conservancy, Saginaw Area Storm Water Authority, and Saginaw County Conservation District. Agency support representatives are added to the committee as projects develop and awareness of our activities grow.

Goals Developed by the Cass River Greenway Committee

- Develop Recreation Opportunities on the Cass River and along its Corridor.
- Preserve and Enhance Wildlife Habitat.
- Improve Water Quality of the Cass River.
- Promote Good Environmental Stewardship Practices.
- Develop Eco-Tourism Opportunities for the area.

Develop Recreation Opportunities on the Cass River and along its Corridor

The design and construction of a water trail on the Cass River was the first priority in this area. During the summer of 2008 an assessment was completed on a section of river from Vassar to Bridgeport, looking at river conditions, paddle times and existing and potential new canoe/kayak launch sites. It was determined to prioritize the section from Vassar to Frankenmuth and build three new launch sites; in Vassar, Tuscola and Frankenmuth. Preliminary designs were developed, community support received and final funding was accomplished with the support of two major financial grants. The construction plan is for 2010 and 2011.

Plans have also begun to expand the water trail. Phase II will include from Frankenmuth, below the dam, to Bridgeport and Phase III will include from the Cass City area through Caro to Vassar.

A second recreation initiative involved the recruitment of area bicyclists to document "preferred" bike routes in the area from Vassar to Bridgeport. These routes have been mapped, containing both city routes and rural routes.

A Water Trail/Bike Route brochure has been designed and printed copies are available at various locations along the routes.

Preserve and Enhance Wildlife Habitat

The preservation of scenic vistas and wildlife habitat is important to a vibrant and healthy watershed. The Cass River Greenway is in the process of sponsoring a Natural Lands Inventory and Assessment study in partnership with U.M. Flint. This study involves an assessment of existing habitat lands (forests, grasslands, wetlands, etc.) and ranks them as to their value/importance to sustaining wildlife populations and environmental processes. The study will also be an aid in identifying critical "corridors" or "linkages" that are important to preserve or develop.

The scope of the study includes six townships along the Cass River corridor from Bridgeport to Caro. The results of the study will be shared with property owners, municipal organizations, and conservation interests.

Improve Water Quality of the Cass River

Improvement of river water quality is a watershed wide activity and involves a long term commitment. The first major step in this area was completed in 2008 with the completion of a Rapid Watershed Assessment. This project was a high level study of the Cass River Watershed using data available from various sources, both historic and current. The study summarizes the key environmental concerns present in the watershed and identifies a strategic approach to remediation of those concerns. This project was funded by U.S.D.A./Natural Resources Conservation Service.

A second initiative completed in 2008 was a riverbank soil erosion study. The section of river studied was from Caro to Bridgeport. Sediment contamination was identified in the Rapid Watershed Assessment as a major concern and this soil erosion study identified over 200 erosion sites along this stretch of river. The sites identified have been reviewed and prioritized and grant funding has been requested to begin remediation activities.

In 2009, with the support of the MDNRE and U.S.D.A./Natural Resources Conservation Service, a Watershed Management Plan Proposal and a funding request were submitted for the Cass River Watershed. If approved, this will initiate a two year planning process that results in an action plan of remediation projects to improve water quality in the Cass River. These remediation projects typically require decades to fund and implement.

Promote Good Environmental Stewardship Practices

As each of the three goals listed above are implemented, good stewardship practices are documented and promoted to various stakeholders. For example, the brochure of the water trail lists good stewardship practices for those using the river to help protect the environment and insure a pleasant experience for the users that will follow. The Natural Lands Inventory and Assessment will identify examples where visitors and property owners can take measures to assist not only wildlife, but the environment as well.

Along with good environment stewardship practices, respect for property rights of land owners and safe practices are emphasized as well.

Develop Eco-Tourism

As recreation opportunities are developed, the Cass River Greenway Committee intends to assist communities and their organizations in developing activities, promotional and educational materials, and communication forums for the region.

Cass River Greenway – Funding

Funding for Cass River Greenway activities and projects come from two primary areas. One is from "local" organizations, clubs, individuals and foundations. The second is from federal, state, county and private grant sources. Local funding match is critical in securing funding from major governmental or private grant sources.

Organization and Communication

The Cass River Greenway is a member of the Frankenmuth Chamber of Commerce. The Cass River Greenway has partnered with the Frankenmuth Community Foundation in establishing a "Friends of the Cass River" account, thereby qualifying as a 501-C-3 organization. A web site has been developed and can be accessed on <u>www.cassriver.org</u>.

As a result of the many references in the Master Plan to the Cass River, the Cass River corridor, natural features in the Frankenmuth area, recreation opportunities, concern over the environment, wildlife habitat preservation and water quality improvement of the Cass River; the Cass River Greenway was organized in January 2008.

Community Membership

The Cass River Greenway Committee membership includes volunteer residents and municipal leaders from cities, communities and townships along the Cass River from Cass City to Bridgeport. The Frankenmuth Township and City of Frankenmuth Planning Commissions are represented on the Cass River Greenway Committee.

Agency Support

The Cass City Greenway Committee is strongly supported by federal, state and county agencies whose representatives are members of the committee. They include: Michigan DEQ Water Bureau, US Fish & Wildlife Service, Saginaw Bay RC&D, Saginaw Basin Land Conservancy, UM Flint-University Outreach, Saginaw Storm Water Authority, Saginaw and Tuscola County Conservation Districts, Tuscola County Road Commission, Michigan DNR, and The Nature Conservancy. Agency representatives are added to the committee as projects develop and awareness of our activities grows.

Goals Developed by the Cass River Greenway

- Develop recreation opportunities on the river and its corridor
- Encourage preservation and enhancement of wildlife habitat
- Improve water quality of the Cass River
- Promote good environmental stewardship practices
- Promote Eco-Tourism opportunities for the area

Develop Recreation Opportunities on the River and its Corridor

The design and construction of a water trail (canoe/kayak launches) on the Cass River is the first priority in this goal. During the summer of 2008 an assessment was completed on a section of the river from Caro downstream to the Saginaw River, looking at river conditions, paddle times and existing and potential new launch sites. It was determined to prioritize the section of river from Vassar downstream to Frankenmuth. Potential new launch sites in Vassar, Tuscola and Frankenmuth were identified. New launches were completed in Frankenmuth and Tuscola in 2011.

During the period 2012 through 2014 plans on expanding the water trail continued. 6 new launches are planned for construction in 2015. They include: Bridgeport at Davis Park, Bridgeport at Dixie

Highway, downtown Frankenmuth at the fish passage rock ramp, downtown Vassar, Vassar township at Caine Road, and Juniata township at M-46 Highway. Take these 2 lines out – they are a repeat

Planning on the water trail continues, with the goal to have conveniently placed launches from Cass City downstream to the Saginaw River.

A second recreation initiative involved the development of "preferred" bicycle routes in the Bridgeport/Frankenmuth/Vassar areas.

A Water Trail/Bike Route brochure has been designed and printed copies made available to area users. The document is available for downloads on the web site www.cassriver.org. Updates will occur as new launches are opened.

Encourage Preservation and Enhancement of Wildlife Habitat

The preservation of scenic vistas and wildlife habitat is important to a vibrant and healthy watershed. The Cass River Greenway has sponsored and completed a Natural Lands Inventory and Assessment study in partnership with UM Flint. This study identified existing habitat lands (forests, grasslands, wetlands, etc.) and ranked them as to their value/importance to sustaining wildlife populations and environmental processes. The study also identified critical "corridors" or "linkages" that are important to preserve or develop. The study included six townships along the Cass River corridor from Caro downstream to Bridgeport; Indian Fields, Juniata, Vassar, Tuscola, Frankenmuth and Bridgeport townships.

The natural lands maps are available on the web site www.cassriver.org.

A second initiative in this area is a phragmites control program. Phragmites is a non-native, invasive reed that threatens the ecological health of wetlands and shorelines of lakes and rivers. While not very established along the shores of the Cass River, phragmites can readily be found near the Cass River, especially along roadside ditches. The focus of the Cass River Greenway program is to eradicate the roadside phragmites before it becomes established along the Cass River. The Cass River Greenway has partnered with the Saginaw and Tuscola County Road Commissions to treat phragmites found along roadsides in the Cass River Corridor. As of December 2014, eleven townships have been treated. In addition, upon request, volunteers treat approximately six private properties per year.

Improve Water Quality of the Cass River

Improvement of river water quality is a watershed wide activity and involves a long-term commitment. The first major step was completed in 2008 with the completion of a Rapid Watershed Assessment. This was a high level study of the Cass River Watershed using data available from various sources, both historic and present. The study summarized the key environmental concerns present in the watershed and identifies a strategic approach to remediation of the concerns.

A second initiative completed in 2008 was a riverbank soil erosion study. The section of river studied was from Caro downstream to Bridgeport. Sediment contamination was identified in the Rapid Watershed Assessment as a major concern. The study identified and ranked over 200 erosion sites along this stretch of the river.

In 2014 Saginaw Bay RC&D successfully led a fundraising effort to begin addressing streambank erosion in the Cass River. Plans are in place to implement erosion control projects in 2015 and 2016.

In 2014, the 6th Annual Cass River Clean Up was held. Each year a Cass River community hosts the cleanup event. As of December 2014, 30 miles of river has been "cleaned".

As a follow up to the Rapid Watershed Assessment completed in 2008, the Michigan DEQ announced the Cass River Watershed had been selected for funding of a Watershed Management Plan project. This is an extremely important and necessary step in developing a long-term effort to improve water quality in the Cass River. It is also a critical step needed to qualify for state and federal funding. The project study and on-the-ground work was completed in 2013 and a report compiled in 2014. The Michigan DEQ and Federal EPA have now approved the Cass River Watershed Management Plan. Subsequently, a major funding request, based on issues identified in the "plan", has been submitted to the MDEQ. The Watershed Management Plan can be found on the web site www.cassriver.com.

In 2011 the Michigan DEQ awarded the Cass River Greenway a Water Quality Monitoring Project grant for a two-year study of the Cass River, testing water quality from sites upstream of Cass City to Bridgeport. Testing parameters included phosphorus, suspended solids, dissolved oxygen, biological oxygen demand, fecal coliform, turbidity, nitrates and ph. The project was managed by Environmental Science Solutions, and supported by area wastewater treatment plants and Saginaw Valley State University. A final report was submitted and approved by the MDEQ in 2014. The results of the study indicated the overall quality of water in the Cass River was "Good" and safe for recreational use. However, several tests under certain conditions indicated the potential for short term elevated levels of e-coli originating from tributary streams. The results of the study were incorporated into the Watershed Management Plan.

Promote Good Environmental Stewardship Practices

As each of the three goals listed above are implemented, good environmental stewardship practices are documented and promoted to various stakeholders. For example, the water trail/bike trail brochure lists good stewardship practices for those using the river to help protect the environment and insure a pleasant experience for users that will follow. The Natural Lands Inventory and Assessment identifies where visitors and property owners can take measures to assist not only wildlife, but the environment as well. Signage kiosks are placed at new launches. They include suggestions for good stewardship practices, following safety guidelines, and respect for private property.

Promote Eco-Tourism Opportunities for the Area

Since opening the new launch sites in 2011 at Tuscola and Frankenmuth, kayak and canoe traffic on the Cass River has increased significantly. The majority of the users are "local" residents, but as awareness of the resource spreads, visitor usage is on the increase.

As recreational opportunities are developed, the Cass River Greenway Committee attempts to assist communities and their organizations in organizing and promoting activities, providing educational materials, and serving as a communication forum for the area. For example, after the construction of the new launches in Tuscola and Frankenmuth, the Cass River Greenway decided to sponsor a "Float and Swim" event to highlight and publicize the new launches. The response was so positive that it led to other groups sponsoring an annual Olympic style triathlon. In 2013 the triathlon drew over 300 participants, and in 2014 over 400, mostly from outside our area.

Cass River Greenway Funding

Funding for Cass River Greenway activities and projects come from two primary areas. One is from "local" organizations, clubs, individuals and foundations. The second is from federal, state, county, and non-local foundations. Local matching match is critical in securing funding from major governmental or private grant sources.

Organization and Communication

The Cass River Greenway is a member of the Frankenmuth Chamber of Commerce.

The Cass River Greenway has partnered with the Frankenmuth Community Foundation in establishing a "Friends of the Cass River" account, thereby qualifying as a 501C3 organization.

A web site has been established and can be accessed at www.cassriver.org.