2040 COMPREHENSIVE PLAN UPDATE

Approved by the Metropolitan Council on _____, 2017
Adopted by Baytown Township _____, 2017

Baytown Township, Minnesota

DRAFT October, 2016
Project No. 16041.000
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I. Introduction

The Metropolitan Land Planning Act requires Baytown Township to update the Township’s Comprehensive Plan. All cities, townships and counties in the Seven-County Metropolitan Area are required to do the same. The original Baytown Township Comprehensive Plan was adopted in December of 1981. The Plan was updated and adopted again in 1998 and 2009. The plan adopted in 2009 included a time frame from its adoption to 2030.

This plan updates the 2030 Comprehensive Plan with current land use, natural resources, transportation, housing and other information. The 2040 Comprehensive Plan covers the time frame from its expected adoption in 2018 through 2040. This Plan meets the requirements of the Metropolitan Council’s Local Planning Handbook, Thrive MSP 2040, and the Metropolitan Land Planning Act.

Metropolitan Council forecasts predict little growth in population and a 13% increase in the number of house holds in the Township between 2020 and 2040. This anticipated growth is considered in the update of the Township’s Plan and the goals and policies included in the plan.

The Township’s Planning Commission and Board met jointly to complete the 2040 Comprehensive Plan update. Township residents also attended the joint meetings, and commented on the plan at an open house and public hearing on the proposed plan.
A. PURPOSE

The Townships Comprehensive Plan is a guide for the Township to use in making decisions about land use, natural resources and infrastructure management. The Township will use the principles, maps, and goals set forth in this plan to guide its land use and planning decisions through 2040.

The goals of comprehensive planning include 1) preserving the character and quality of life in the Township, 2) minimizing land use conflicts in the future to protect property values, and 3) guiding the efficient and effective use of public resources and investment.

Unplanned development may result in an undesirable mixture of land uses. Land use relationships affect the stability of property values in a community. Conflicting land uses can lower property values while compatible land use relationships may raise these values. The land use plan provides for logical development of future land use patterns while preserving and enhancing areas of existing development. With implementation of this plan, future residents will find Baytown Township as attractive and appealing as it is today.

B. 2040 REGIONAL DEVELOPMENT FRAMEWORK

The Metropolitan Council’s unifying policy document for long-term planning through 2040 is the Thrive MSP 2040. This document and the regional system plans include the Council’s goals, policies, and strategies for managing land use and the regional systems through 2040. The Thrive document and regional plans provide the context for local planning efforts and provide guidelines and policies for the Township’s 2040 Comprehensive Plans. The Township’s 2040 Comprehensive Plan must be consistent with the goals and policies in Thrive MSP 2040 and the regional system plans to be approved.
1. Community Designation—Township Request for Community Designation as “Rural Residential” for Entire Township

The Metropolitan Council’s Thrive MSP 2040 classified the Township as both a “Diversified Rural” and “Rural Residential” community. These are the same classifications the Council identified in the System Statement for the 2030 Comprehensive Plan. Exhibit 1, below, shows the areas included in each designation in Thrive MSP 2040 and the System Statement for Baytown Township.

“Diversified Rural” communities may include a mix of large-lot residential and clustered housing, hobby farms, and agricultural uses. The Metro Council’s policies state that Diversified Rural communities are expected to plan for growth not to exceed regional forecasts, and in patterns that do not exceed 4 units per 10 acres.

“Rural Residential” communities have residential patterns characterized by large lots and do not have plans to provide urban infrastructure, such as centralized wastewater treatment. Densities may range from 1.0 to 2.5 units per acre.

Baytown Township proposes that the entire Township be classified as “Rural Residential” for the 2040 Comprehensive Plan, and has created its 2040 Land Use Plan to be consistent with the policies for the “Rural Residential” Community Designation.

The Township discussed the proposed change in meetings with Metro Council staff as it developed this plan. Copies of the meeting notes and correspondence with Council staff on this issue are included in the Exhibits to this plan. The rationale for the Township’s requested change in designation is as follows:

- The “Diversified Rural” classification area identified in Thrive MSP 2040 was based on the Long-Term Sewer System Area (LTSSA) designated in the System Statement. The LTSSA is the same geographic area as the “Diversified Rural” community designation. The LTSSA was designated prior to the 2030 Comprehensive Plan, and assumed that the St. Croix Valley Wastewater Treatment Plant could provide regional sewer services to the area in the long-term.

- The Metro Council has recently completed an evaluation of the future capacity of the St. Croix Valley Wastewater Treatment Plant, and has determined that only one more minor expansion of the plant is feasible.

- Based on the evaluation of the St. Croix Valley Wastewater Treatment Plant, MCES staff stated that they are willing to eliminate the LTSSA within Baytown Township due to the capacity limits of the St. Croix Valley Plant.

- MCES staff also stated that if the entire Township is classified as Rural Residential, this means that regional sewer infrastructure will not be available to Baytown Township.
• The Township agrees with the Council staff statements, and stated that the Township has no desire to develop its own municipal sewer system.

• The Town Board noted that one site in the Township (the St. Croix Preparatory Academy) was developed with municipal sewer services from the City of Bayport after the 2030 Comp Plan was approved. There could be requests for similar partnerships with adjacent communities to develop uses with services from other communities in the future. Metro Council staff noted that if this occurs, it will use capacity that is available to the providing community. The Township will need to request a Comprehensive Plan Amendment in order to approve development on some sites with urban services in the future. The Township agreed that it will use this process.

• The Township emphasized the Baytown Township’s development patterns have typically been large lot single family housing. Most of the Township has been developed already with 2.5-acre and 5-acre lots, including the area that was within the 2030 LTSSA and in the area designated “Diversified Rural” in the 2040 System Statement. These lot sizes are typically difficult to plan for future public services (water and sewer) and generally fit more in the characteristics of the Rural Residential designation.
2. Regional Policies for Rural Residential Communities

The Metropolitan Council's Thrive MSP 2040 includes the following guidance for land use planning for Rural Residential communities:
• Discourage future development of rural residential patterns (unsewered lots of less than 2.5 acres), and where opportunities exist, plan for rural development at densities that are not greater than 1 unit per 10 acres.

• Implement conservation subdivision ordinances, cluster development ordinances, and environmental protection provisions in local land use ordinances, consistent with the Metro Council’s flexible residential development guidelines.

• Promote best management practices for stormwater management, habitat restoration, and natural resource conservation in development plans and projects.

The Township has incorporated Land Use Goals and Policies for Rural Residential communities in this 2040 Comprehensive Plan Update, so that the plan is consistent with the regional guidance for Rural Residential Communities.
II. Township Background, History, and Forecasts

Baytown Township is located in the east central part of Washington County. Baytown Township is bounded on the north by the City of Oak Park Heights, on the south by West Lakeland Township, on the west by the City of Lake Elmo and on the east by the City of Bayport and the St. Croix River. Baytown Township contained approximately 6,500 acres in 1981 when the original plan was completed. With subsequent annexations to the Cities of Oak Park Heights, Lake Elmo, and Bayport, the Township now contains approximately 5,865 acres.

Exhibit 2:
Regional Context
A. HISTORICAL BACKGROUND

Baytown Township was organized in 1858 and named by Commissioner Socrates Nelson for the adjoining bay of Lake St. Croix, divided from the main lake by Mulvey's Point to the south of Stillwater. It was laid out as a fractional Township of 12 full and 3 partial sections.

The first settlement was made by Francis Bruce in 1842. In that same year, Norman Kittson of the American Fur Company built a cabin on a narrow neck of land existing out in Lake St. Croix known thereafter as Kittson's Point.

In 1852 Ambrose Secrest, his wife and six children, his father and mother and three brothers came up the river on the Cholera-infested steamer Nominee on their way from Indiana, and settled in the Bruce house. They were stricken with cholera, and within days, Secrest's mother, father, wife, one child and two brothers died. Other early settlers from 1847-1850 were John Short, Albert Harris, Joseph Perro, A.B. Fist, and J. and F. Marty.

The first town meeting was held in Secrest's and Perro's store located in what was known later as South Stillwater. The meeting was adjourned to the school for need of more space, and the following officials elected: Ambrose Secrest, John Parker and W.H. Crosby, Supervisors; John Hale, Clerk; Henry Beach, Collector; David Loomis, Assessor; Joseph Perro, Overseer of the Poor; Henry Beach, A. Flynn, Constables; William Gowen and Richard McDonald, Road Overseers; W.H. Crosby, Pound-Master; James Crofut and George Kern, Justices.

The first school district organized was number 3, and the building was erected by subscription on the flat in the north part of the village.

The St. John's German Lutheran Church was organized in 1855, and money raised for building construction in 1856. A Union Church was erected in South Stillwater in 1890 on a site donated by the St. Croix Railway and Improvement Company.

The first settlers located in what was later called South Stillwater. Few improvements were made until 1852 when Socrates Nelson and D.B. Loomis, under their company name of Nelson, Loomis and Company, surveyed and platted a town there which was called Baytown. (Bayport later became the accepted name.) Nelson and Loomis built a sawmill and operated from 1853 to 1858, when the company dissolved, and Baytown with all improvements became the property exclusively of Socrates Nelson.

In 1854 Secrest and Perro laid out an addition in Baytown, and in 1856 Ex-Lieutenant Governor Holcomb laid out another addition called Middletown which was annexed to Baytown. About this same time, Isaac Staples and others laid out a village on the south of Baytown which they called Bangor, after a lumbering town in Maine.

In 1872, the St. Croix Lumber Company was founded, and the period between 1872 - 1878 saw a flurry of sawmill ventures, most plagued by fire or financial difficulty.
In 1877, an organization called "The South Stillwater Agricultural Works" was formed to build threshing machines. It failed after two years and the property was taken over by the St. Croix Lumber Company. Among its varied pursuits, this company operated a door, sash and blind factory, a machine, blacksmith and foundry, and here manufactured the famed "Crystallized Iron Plow". The lumber mill had an annual capacity of 15,000,000 feet of lumber and 10,000,000 shingles, as well as 4,000,000 lath.

The Stillwater Dock Company, organized in 1877, concentrated on building steamers and produced about three per year. Among the most famous creations were the Pauline, the R.C. Wheeler, and the Kit Carson. These steamers were the pride of the river for some time.

The Baytown Flour Mill was built in 1853 and the South Stillwater Soap and Rendering Plant in 1868.

The Township was blessed by the St. Paul, Stillwater and Taylors Falls Railroad as a junction was located here, with one branch running to Stillwater and the main line southeast to Hudson, Wisconsin.

The population of Baytown was mainly German and Irish, but the influx of people between 1875-1880 represented many more countries of the world and many eastern states as well.

Today, after the incorporation of Bayport (1881) and Oak Park Heights (1959) and several subsequent annexation of lands to those cities and to neighboring Lake Elmo, the Township remains with 5 full sections and 7 partial sections, approximately 5,865 acres.

B. DEMOGRAPHIC DATA AND FORECASTS THROUGH 2040

The basis for comprehensive planning is population, household and employment forecasts and historic trends. Understanding past and expected change allows for anticipating Baytown Township’s land, transportation, parks and other types of future needs. The Metropolitan Council prepares forecasts for future change in population, household and employment for local government within the seven-county region. Demographic data from the United States Census is available every ten years and illustrates long term patterns of community change or stability. The Township has adopted the Council’s forecast data as the basis for planning in its 2040 Comprehensive Plan Update.

1. Demographic Trends

Baytown Township’s population has experienced sustained growth since 1970. The 2000 United States Census shows that Baytown’s population growth between 1990 and 2000 was notable, at a rate of 63 percent over the ten year period, or by an increase of nearly 600 people. Table 1 shows that population growth slowed in the Township between 2000 and 2010 from previous decades.

Household growth in the Township is related to population growth, and follows a national trend in declining average household size. Average household size in Baytown in 2019 was 2.8 persons per household, which is similar to household sizes in Washington County, and slightly larger than the average household size in the Metropolitan Area.

2. Past Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Ten year percent change</th>
<th>Ten year percent change</th>
<th>Average Household Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>520</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1940</td>
<td>631</td>
<td>21.3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1950</td>
<td>620</td>
<td>-1.7</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1960</td>
<td>471</td>
<td>-24.0</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>1970</td>
<td>723</td>
<td>53.5</td>
<td>183</td>
<td>4.0</td>
</tr>
<tr>
<td>1980</td>
<td>851</td>
<td>17.7</td>
<td>237</td>
<td>29.5</td>
</tr>
<tr>
<td>1990</td>
<td>939</td>
<td>10.3</td>
<td>308</td>
<td>30.0</td>
</tr>
<tr>
<td>2000</td>
<td>1,533</td>
<td>63.3</td>
<td>492</td>
<td>59.7</td>
</tr>
<tr>
<td>2010</td>
<td>1,617</td>
<td>5.5</td>
<td>573</td>
<td>16</td>
</tr>
</tbody>
</table>

*Source: Baytown Township Comprehensive Plans, Metropolitan Council, TKDA*

3. Demographic Forecasts

The Metropolitan Council provided population, household and employment forecasts to Baytown Township through the Systems Statement in September of 2015. Forecasts are useful to the Township in estimating the amount of land that will be needed.
The population forecasts show that the Township is expected to have moderate growth in population through 2040, though at a lesser pace than experienced in most decades since 1970. Little to no growth population growth is expected between 2020 to 2030. The Metro Council forecasts modest growth in households and employment between 2020 and 2040. Tables 1 and 2 identify past trends and future growth.

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<th>Table 2: Population Forecasts 2010-2040</th>
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<tr>
<td>2010</td>
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<tr>
<td>Population</td>
</tr>
<tr>
<td>Households</td>
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<tr>
<td>Employment</td>
</tr>
</tbody>
</table>

Source: Metropolitan Council

Household and Population Trends in Baytown Township

1970-2040

Population and Households in Baytown Township

Click a population column for the mix of population in households and population in group quarters (not available for forecast years).

Sources: U.S. Census Bureau Decennial Census, Metropolitan Council Annual Estimates, and Metropolitan Council Forecasts.

4. Population Characteristics

An analysis and projection of population are at the base of many planning decisions. The primary goal of the population analysis is to anticipate the future need of Baytown Township with regard to land use, transportation, and community facilities. In order to do
this, it is necessary to have some idea of the number and the characteristics of present residents of the Township.

In addition to reviewing past trends and future forecasts, it is important to understand the composition of the population. Age structure, family size, education, and income levels are a few of the characteristics that can affect the need for services of a township such as Baytown. In the section that follows, a few of these characteristics will be reviewed.

Age

The graph below shows the population Baytown Township’s residents by age and gender. The largest proportion of Baytown’s residents were between age 45 and 65 in 2010. There is also a significant proportion of young residents between the ages of 5 and 20.

Population by Age and Gender in Baytown Township

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
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<tbody>
<tr>
<td>0.93%</td>
<td>0.87%</td>
</tr>
<tr>
<td>1.66%</td>
<td>1.22%</td>
</tr>
<tr>
<td>1.33%</td>
<td>1.45%</td>
</tr>
<tr>
<td>1.51%</td>
<td>1.35%</td>
</tr>
<tr>
<td>1.97%</td>
<td>2.94%</td>
</tr>
<tr>
<td>2.31%</td>
<td>3.89%</td>
</tr>
<tr>
<td>3.31%</td>
<td>5.57%</td>
</tr>
<tr>
<td>5.8%</td>
<td>4%</td>
</tr>
<tr>
<td>5.11%</td>
<td>5.28%</td>
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<td>5.75%</td>
<td>3.31%</td>
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<td>2.65%</td>
<td>1.66%</td>
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<td>1.04%</td>
<td>1.63%</td>
</tr>
<tr>
<td>1.22%</td>
<td>2.38%</td>
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<td>1.51%</td>
<td>4.29%</td>
</tr>
<tr>
<td>4.13%</td>
<td>2.03%</td>
</tr>
<tr>
<td>3.69%</td>
<td>2.44%</td>
</tr>
<tr>
<td>3.22%</td>
<td>1.74%</td>
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</tbody>
</table>

This chart cannot be saved as an image. Please contact us at research@metc.state.mn.us if you need assistance.

Source: U.S. Census Bureau Decennial Census or American Community Survey.

Household Size and Type

Household size has gradually been decreasing in the Township, Washington County, and the Metropolitan Area since 1990. The average household size in the Township was 2.8 persons per household in 2010.
Approximately 48% of the Township’s households did not have children living in the household in 2010. 29% of households were married families with children, 15% were persons living alone, 5% were unmarried families with children, and 3% were non-family households.

**Educational Attainment/Income Levels**

Baytown Township is highly educated compared with Washington County and the seven county region. 71% of the adult population in Baytown has either a bachelors, graduate, or professional degree. Income is closely correlated with educational levels. In Baytown in 2014, median family income was $120,400 compared to $83,200 in Washington County and $68,000 in the Metropolitan Region.

**5. Economic Background**

Baytown is not a large employment center, with only 69 jobs in 2010. This number is expected to grow slowly to 160 in 2020, to 210 in 2030, and to 260 in 2040.

The Township’s land use plan includes areas for limited commercial development and existing employers, such as St. Croix Preparatory Academy. The areas designated will accommodate the modest growth in employment that the Metro Council forecast through 2040 in Baytown Township.
C. PHYSICAL FEATURES AND NATURAL RESOURCES

Baytown Township's environment should be respected, cared for and maintained for current and future residents. The citizens of Baytown Township have a high regard for their environment and have made major efforts to preserve their Township. However, the preservation of Baytown’s natural features has not been an easy task considering the soils, steep slopes, drainageways, vegetation, lakes and steams that make up the Township. All of these features need protection though careful planning which recognizes the Township’s developing needs. Following is a discussion of Baytown’s various natural features.

1. Soils

The map of soils in the Township using data from the U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey Geographic (SSURGO) Database is included as Exhibit 3A. The soil survey indicates, among other things, the type of soil, the slope gradient, the suitability of the soil as a source of selected materials and features affecting use, and the degree and kind of soil limitation for selected uses. The soil map is a general guide for planning but does not eliminate the need for sampling and testing at a specific site.

Hydrologic soils groups shown in Exhibit 3B describe soils based on runoff potential of soil. The four Hydrologic Soils Groups are A, B, C, and D, where A’s generally have the smallest runoff potential and D’s the greatest. More detailed descriptions of the hydrologic soils groups are found in the Appendix. The hydrologic soils group most prevalent in Baytown Township is Type B. Type B soils have moderate percolation rates and have moderate limitations for the installation of subsurface septic systems. Soil types with more severe limitations are present throughout the central portion of the Township, especially in the north-central areas. Slow percolation rates indicate soils that are too tight to accept sewage. Thus, systems placed in these soils could fail if sewage percolates to the ground surface or backs-up in the residence.

Indicated on Exhibits 3C - 3E are soils having varying degrees of limitations for septic tank absorption fields for trench, at-grade, and mound septic systems. As can be seen from the soil maps, a significant portion of Baytown Township has either extreme or moderate limitations for these systems. Slow percolation rates, wet or periodically flooded areas, steep slopes, or bedrock near the surface cause soils to have degrees of limitations for septic tank drainfields.

Wet areas are scattered throughout the central portions of the Township and are especially present in the southwestern areas of the Township. These soils are those that are periodically flooded or have a high water table. The flooding referred to is local ponding which occurs after heavy rains, and may persist for several weeks or longer in the spring. Usually, a soil that has flooding characteristics will also have a high seasonal water table. The depth to the water table is the highest known elevation at which the soil profile is totally saturated. Thus, if a soil treatment system is installed at this depth or deeper, no sewage effluent will be able to move into the soil since the soil is already saturated. Hence, the sewage will either back-up in the residence or seep to the surface of the ground.
Steep slopes indicated on the Topography map are especially present along the St. Croix River and in the southeastern portion of the Township.

Bedrock within three feet of the surface is encountered along the St. Croix River and in a small area in the southeastern corner of the Township. Soil treatment systems which are placed too close to fractured bedrock do not perform adequate treatment of sewage effluent. Under these conditions, sewage may move though the rock and enter wells without receiving sufficient filtration to remove the chemical and bacteriological contamination.

The following observations and problems were identified during the soils analysis:

- Many existing homes in the Township lie within soil conditions with moderate or low percolation rates.

- Shallow wells and proximity to sewage disposal systems or systems placed in bedrock are susceptible to groundwater pollution and well contamination.

2. **Prime Agricultural Soils**

Baytown Township is a community founded on agricultural land uses. Prime agricultural soils found in the community are identified on Exhibit 4. Much of the Township consists of soils that are classified as prime agricultural soils (Class I and II Soils). Class III soils are shaded on this map and are classified as secondary agricultural soils. Concentrated areas of prime soils are located in the southwestern corner of the Township.

The prime agricultural soils map indicates that most of the soil in the Township is considered productive agricultural land. When reviewing this data for long term use of the land, additional factors such as existing land use, topography and vegetation must be considered.
Exhibit 3A: Soil Survey Geographic (SSURGO) Database
Exhibit 3B:
Hydrologic Soils Groups
Exhibit 3C: Septic Tank Absorption Fields - Suitability for Trench Systems
Exhibit 3D:
Septic Tank Absorption Fields - Suitability for At-Grade Systems
Exhibit 3E:
Septic Tank Absorption Fields - Suitability for Mound Systems
Exhibit 4:
Prime Agricultural Soils
2. **Topography**

Baytown Township is characterized by a diversified landscape consisting of level areas, ravines and moderate to excessive slopes. The land formations along the St. Croix River are indicative of the natural settings along major rivers that are formed by the surface water run-off process. Outside the river area, the topography is varied with some steep slopes along lakeshore areas and in the southeastern portion of the Township.

Slopes 12% to 18% and 18%+ are indicated on the Topography map. Areas with slopes over 12% exist in scattered portions of Baytown Township. The Township’s Zoning Ordinance regulates land disturbance and restoration on slopes greater than 12% to address the following concerns:

- The possibility of erosion
- Septic systems function poorly on steep slopes
- Erosion that may result in foundation or structural damage
3. Vegetation

Much of the Township has been developed for residential and agricultural land uses, and limited area of natural vegetation remain. The significant areas of native vegetative cover that remain in the Township are mapped on the Environmental Features Map (Exhibit 6). The areas include high-quality natural communities in the Bayport Wildlife Management Area (WMA) and St. Croix Savanna SNA.

Numerous wetlands and ponding areas exist throughout the Township. In addition, three small lakes are present in the Township. The lakes, wetlands and waterways of the town are extremely valuable. Wetlands are important in their capacity to filter and purify surface waters. They naturally function as nutrient traps and as settling ponds. They act as water reservoirs during times of drought and as sponges during periods of high rain and run-off, retarding run-off and reducing the severity of flooding. Wetlands also provide essential breeding, nesting, resting and feeding grounds, and predator escape cover for myriad forms of wildlife. Wetlands are also important for recreational purposes.

http://www.mnwcd.org/wetlands_can_i.php
4. Geology

In Baytown Township, the highest elevation of bedrock is located in two areas of the Township's south central region, south of CSAH 14. The elevation is approximately 1,000 feet above sea level and the types of bedrock are Platteville and Glenwood Formations. Platteville Formations consist of fine grain dolostone and limestone and are underlain by Glenwood Formations, which consist of green sandy shale.

Other plateaus of bedrock in south central Baytown peak at around 900 feet above sea level. These areas are capped by St. Peter Sandstone. St. Peter Sandstone is the highest layer of bedrock for about 1/4 of the Township. It is made up of fine and medium grade sandstone with the lower part of the layer also containing mudstone, siltstone, and shale interbedded with coarse sandstone.

The majority (over 60%) of the Baytown has bedrock at elevations from 800 to 850 feet above sea level; the bedrock associated with these areas is Prairie du Chien Group. Prairie du Chien bedrock in the upper two thirds to half is composed of sandy or thin bedded dolostone with thin beds of sandstone and chert. The dolostone in the lower part is massive to thick bedded and not sandy.

Around McDonald Lake and hence in an easterly path to Oak Park Heights and then southerly along the St. Croix River bluffline, the elevation of the highest layer of bedrock is approximately 750 feet above sea level. The bedrock associated with this elevation is Jordan Sandstone. The upper part of Jordan Sandstone is medium to coarse grained, quartzose sandstone. The lower part is fine grained sandstone that is commonly feldspathic, bioturbated and massively bedded.

East of the bluffline and the St. Croix River the elevation decreases to approximately 700 feet above sea level. The bedrock that are the top layer at this elevation are St. Lawrence and Franconia Formations. St. Lawrence Formations consist of dolomitic shale and siltstone that is thin bedded. The Franconian is composed of fine grained glanconitic sandstone.

About two thirds of the bedrock in Baytown Township is less than 100 feet from the surface soil. In central and south central Baytown, the bedrock is often less than 50 feet from ground level. Much of the north, west and southwest perimeters of the Township have a depth to bedrock of 51 to 100 feet.

5. Hydrogeology

The ground-water resources of Baytown Township are located in four underground aquifers. Three of the aquifers are located in bedrock and one is a Quaternary or water-table aquifer. The three bedrock aquifers are the Prairie du Chien-Jordan, Franconia-Ironton-Galesville, and the Mt. Simon. In the bedrock aquifers, which are overlain with a confining geologic layer, the ground-water is under artesian pressure. The artesian pressure causes the water within the aquifer to move from high to lower pressure elevations. In
water-table aquifers, the ground-water is under atmospheric pressure. The elevation an aquifer's static water level is at is called the potentiometric surface.

The water-table is located below where the ground is completely saturated with water and the water-table exist in many types of ground or geologic material. Some of this geologic material, such as gravel or sand, will yield water to wells. About half of Baytown is located over the water-table aquifer that will yield water to wells. The extreme north west corner and a wide strip running north to south though the center of the Township do not have access to this aquifer, because of the geologic matter of the areas. The movement of the ground-water is to the east and the elevation of the water-table decrease gradually from 850 feet above sea level in the west to under 700 feet above sea level along the St. Croix River.

The Mt. Simon aquifer also underlies the entire Township. The ground-water flows in an easterly pattern to the St. Croix River and the potential yield from the aquifer is from 1,000-2,000 gallons per minute. The static water level of the aquifer slopes downward at a slight angle from the east and it is approximately 700 feet above sea level throughout the Township. The difference between the water level of the Mt. Simon and Franconia-Ironton-Galesville aquifers varies greatly from 100 feet at the west edge of the Township to zero in the eastern part of the Township adjacent to the river.

6. Sensitivity of Groundwater Systems to Pollution

As part of the Washington County Geologic Atlas, a map of sensitivity of groundwater systems to pollution was prepared for the water-table system (aquifer) and one was prepared for the highest bedrock aquifer. The highest bedrock aquifer for most of Washington County is the Prairie du Chien-Jordan, but Baytown Township has the Franconia-Ironton-Galesville aquifer as the highest aquifer along the St. Croix River. It is noted on the maps that were prepared using assumptions and, therefore, the classifications are not absolute.

The sensitivity to pollution of the ground-water of the water-table system in Baytown is mostly in the "High" rating category. The "High" rating indicates the "contaminants will probably reach the system in weeks to years." The western half of the Township has some small sporadic areas rated as "Very High: contaminants will almost certainly reach the system in hours to months." The north central region of the Township has a substantial area that is rated as "Moderate: contaminants will reach the system in years to decades."

The Prairie du Chien-Jordan aquifer's sensitivity to pollution ranges from "High" to "Low-Moderate." There is no real pattern to the changes in sensitivity except that the area west of the St. Croix River bluffline and on either side of CSAH 21 is "High." The most common ratings are "High" and "High-Moderate," but also dispersed in the area are the ratings of "Moderate" and "Low-Moderate: contaminants will probably not reach the system for a decade."

As noted earlier the Franconia-Ironton-Galesville aquifer is the highest bedrock aquifer in Baytown where the Township meets the river. The rating for this small area is entirely "High-Moderate."
The above information pertaining to geologic conditions can be seen in graphic form by consulting the Washington County Geologic Atlas.

In 1987, contamination was first found in groundwater in Baytown. The primary kind of contamination is due to Trichlorethylene (TCE), which emanates west of the Lake Elmo Airport in Lake Elmo. The plume of contamination spreads east from the Airport area through the center of Baytown. Concentrations range from 5-10 ug/l to greater than 30 ug/l through much of the Township. The Township is currently under a well advisory. TCE is a chemical used for degreasing and is used in the textile industry, adhesives, lubricants, paint, paint strippers and cleaning agents.

Because of the well advisory, precautions must be taken for private wells. Where possible, the Township encourages common water systems, which enables wells to go deeper to avoid the contaminated aquifer, which is primarily the Prairie du Chien. This is discussed in more detail in the Community Facilities chapter of this Plan.
III. Land Use

A. EXISTING LAND USE

The Metropolitan Council provided maps of existing land use in the Township and tables that estimate the area of use by land use classification in 2005 and 2010. The Council’s data is shown on the Existing Land Use Map (Exhibit 8) and the table below indicates the distribution of land uses by acreage in Baytown Township.

Table 3: Existing Land Use

<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>2005 Acres</th>
<th>2010 Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Undeveloped</td>
<td>3,529</td>
<td>3,182</td>
</tr>
<tr>
<td>Residential</td>
<td>1,035</td>
<td>1,115</td>
</tr>
<tr>
<td>Industrial and Utility</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Extractive (mining)</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>Institutional</td>
<td>108</td>
<td>138</td>
</tr>
<tr>
<td>Commercial/Mixed use</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Park, Recreation, Open Space</td>
<td>149</td>
<td>356</td>
</tr>
<tr>
<td>Major Roadways</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Airport</td>
<td>271</td>
<td>271</td>
</tr>
<tr>
<td>Open Water</td>
<td>691</td>
<td>691</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,870</strong></td>
<td><strong>5,870</strong></td>
</tr>
</tbody>
</table>

Data source: Metro Council

1. Agriculture

Agriculture lands make up approximately one quarter of the Township’s area, and are particularly concentrated in the areas near the Lake Elmo Airport and in the eastern portion of the Township.

Prior to 1960, Baytown Township was almost entirely agricultural, but since then a significant amount of residential development has occurred in the Township. Baytown Township has been steadily losing agricultural land over the past years.

One significant area of the Township is enrolled in the Agriculture Preserves program, as shown on the 2040 Land Use Plan. The remaining areas designated for Agricultural land use include farms and aggregate mining operations, which are permitted only within areas zoned for Agricultural use.

Agricultural Preserves

In April 1980, the State Legislature passed and the Governor signed the Metropolitan Agricultural Preserves Act. This act provides a package of benefits to enable farmers near urban areas who want to continue farming to do so on an equal footing with farmers not
affected by urban pressures. The intent is to allow farmers to make long-term agricultural investments with the assurance that their land would continue in farm use.

Farmland in Agricultural Preserves is taxed according to its agricultural use rather than market value, and mill rates are reduced to a level comparable to outstate agricultural areas. The act limits property taxes in two ways: first land in agricultural use is valued solely according to its agricultural use value; second, a maximum rate of tax is set, based on 105 percent of the statewide average for Township gross mill rates. Any revenue shortfall resulting from limiting the mill rate is reimbursed by the state.

The Township includes any parcels participating in the Agricultural Preserves program in the Agricultural Preserves (AP) Zoning District, which has a minimum lot size of 40 acres and limited allowed and permitted uses based on the Agricultural Preserves Act.

Agriculture Zoning District

The Agriculture Zoning District permits a variety of agricultural uses, single-family residential development, and aggregate mining operations. This district is located in the eastern portion of the Township, near the St. Croix River.

2. Residential Development—Single Family Estates Land Use areas and Zoning District

Land use in Baytown Township consists primarily of large lot single family residential land uses, concentrated in the Single-Family Estates zoning district. The Metropolitan Council forecasts that the number of households within the Township will increase from 573 households in 2010, to 670 in 2020, to 726 in 2030 and 760 in 2040. This is a 17% increase from 2010 to 2020, and a 13% increase from 2020 to 2040. This growth in households and the corresponding growth in population will be concentrated in the Residential areas. Future development is likely to occur at similar patterns and densities to past development.

The Township permits some options for creative subdivisions within the Single-Family Estates areas:

Lot Averaging and Cluster Developments

The Township’s Zoning Ordinance currently permits lot averaging and cluster developments (also called Open Space Subdivisions) as a subdivision option.

Lot averaging permits variable lot sizes within a subdivision as long as the overall density of the subdivision is consistent with the Comprehensive Plan and Zoning Ordinance. Cluster development is defined as residential development in which a number of single family dwelling units are grouped on lots that are smaller than permitted in the zoning district if a significant portion of the subdivision is preserved for open space through a perpetual conservation easement. Cluster developments may “earn” bonus units if they help to implement the Township’s land use goals.

The Township has noted that it is becoming difficult to identify organizations that are willing to accept and monitor the conservation easements that are required for Cluster
Subdivision. The Minnesota Land Trust and MnDNR are not interested in monitoring
casements on smaller parcels or those that do not have high-quality natural communities.
Washington County will not accept or monitor these easements.

The Township reviewed the existing cluster subdivisions and noted a number of issues: 1) the subdivisions have not always contributed to meeting the Township's land use goals as the open space areas have not preserved significant natural resources or meaningful open space areas, and 2) residents often encroach on the open space areas, and this activity becomes difficult to discourage when Homeowners' Associations are no longer active, or with changes in home ownership. The Township will study this issue in the near future, and may update its Zoning Ordinance to include changes to Lot Averaging and Open Space Subdivisions. The Town has included a goal to review these development options in the land use goals for this plan.

3. Public Lands

Public lands in the Township include the Washington County Fairgrounds, Lake Elmo Airport, and Bayport Wildlife Management Area.

The use of the Fairgrounds is governed by a Conditional Use Permit issued by Washington County. The County's land use and zoning authority for areas outside of Shoreland areas, the St. Croix River District, and Mining uses will transition to the Township in 2016. The Fairgrounds proposed uses of the property for large-scale events have met opposition from Township residents, and generated concern about the long-term use of the property and permit. The Township has included a future land use study for the Fairgrounds area in its land use goals for this Comprehensive Plan, and noted this on the 2040 Land Use Plan.

The Lake Elmo Airport is mostly located within the boundaries of Baytown Township. This facility consists of approximately 530 acres in the southwestern corner of the Township owned by the Metropolitan Airports Commission. The Airport is currently completing its Comprehensive Plan, which includes some safety improvements and a runway extension to the south. The changes have no impact on Baytown Township.

The State of Minnesota owns approximately 337 acres in the Township—the Bayport Wildlife Management Area. The area in the north-central portion of the town on the west side of Osgood Avenue, and is used as a game management area managed by the Minnesota Department of Natural Resources.

The State also owns property on the west side of the Union Pacific Railroad tracks, south of the City of Bayport and up to the St. Croix River, called the St. Croix Savanna Scientific and Natural Area. The southernmost part of this area is managed by the Minnesota Department of Natural Resources, a portion north of that is managed by the Minnesota Department of Transportation, and the remaining northernmost portions are used by the Minnesota Department of Corrections. These properties and the Wildlife Management Area are public lands and valued by Township residents for the recreational opportunities that they provide.
4. **Institutional Use**

The area identified on the Land Use Map as “institutional” use is the property occupied by the St. Croix Preparatory Academy. This area occupied by this use is expected to remain unchanged through 2040.

5. **Mining Uses**

Aggregate resources within the Township are included in the Agriculture land use area on the eastern boundary of the Township. There are two active mining areas in the southeast portion of the Township. The Township will continue to permit mining in its Agriculture District so that this material can be removed prior to development.

Exhibit 8 identifies the areas within the Township that include significant aggregate resources.
B. FUTURE LAND USE

Baytown Township has made changes to its future land use plan in this Comprehensive Plan Update from the plan that was approved in the 2030 Plan. The proposed 2040 Land Use Plan is shown on Exhibit 9.

The Township is a rural residential community and wishes to preserve its character, sense of community, and existing Township borders. In order to preserve the Township’s goals and policies which reinforce these values, the Township does not plan to provide municipal waste water services within the Township. The Township’s land use plan proposes that most of the Township be developed as single-family estates and agricultural uses. Other smaller areas of public and institutional uses are included in the plan.

*Consistency with Metropolitan Council Forecasts.* The proposed land use areas in the Township provide for land use types and areas to provide for the modest growth that is predicted by the Metropolitan Council forecasts through 2040. The Council has forecast approximately 200 additional people, 187 additional households, and approximately 200 new jobs in the Township between 2010 and 2040. There is sufficient undeveloped area in the agricultural and residential land use areas to accommodate the population and household growth forecast, and additional employment in the Township may occur in the Institutional (schools) and Agricultural (mining) land use classifications. The Township estimates that there are approximately 840 developable acres remaining within the Single-Family Estates land use district.

*Changes from 2030 Comprehensive Plan Land Use.* The Township’s proposed 2040 Land Use map is similar to the 2030 proposed land use map. The minor changes include: elimination of a small area of higher-density sewered land use adjacent to Oak Park Heights, and the conversion of some small areas of Agriculture adjacent to the SFE zone and area of Rural Residential use along Stagecoach Trail to Single-Family Residential Use. At the time of the 2030 plan, a senior housing development in Oak Park Heights talked with the Township about potential expansion to an adjacent parcel in the Township, but that is no longer likely.

*Location of future growth.* The majority of the expected growth in the Township will occur in the Single-Family Estates area identified on the land use map by division of the larger parcels remaining in this zone into smaller, single-family residential parcels. Proposed land use in 2040 includes the following areas:

<table>
<thead>
<tr>
<th>2040 Land Use Designation</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture Preserves</td>
<td>200</td>
</tr>
<tr>
<td>Agriculture</td>
<td>328</td>
</tr>
<tr>
<td>Single Family Estates</td>
<td>3,659</td>
</tr>
<tr>
<td>Public</td>
<td>948</td>
</tr>
<tr>
<td>Institutional</td>
<td>59</td>
</tr>
<tr>
<td>Water and wetlands</td>
<td>671</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,865</strong></td>
</tr>
</tbody>
</table>
The intent and purpose of each land use area that is identified on the Township’s 2040 Land Use Plan is as follows:

1. **Agriculture Preserves (1 density unit/40 acres)**

   The purpose of this designation is to preserve agriculture as a viable permanent land use and significant economic activity within the Township on parcels with a minimum size of 40 acres. Properties currently enrolled in or eligible for the Agricultural Preserves program are included in this land use designation.

2. **Agriculture (4 density units/40 acres)**

   The purpose of this area is to preserve land which can be utilized for interim agriculture on lots smaller than those required in the Agricultural Preserves designation, and includes aggregate mining operations. This category allows for rural low density housing and will be developed at a density of 4 density units per 40 acres (1 home per 10 acres). This district helps to preserve the rural character of the Township. It allows agricultural and single-family residential uses, and permits aggregate mining with a Conditional Use Permit.

3. **Single Family Estate (16 density units/40 acres)**

   Single Family Estate lands will be developed with single-family residential uses at a minimum density of 16 density units per 40 acres (1 home per 2.5 acres). This is the largest land use designation within the Township. The district allows agricultural and single-family residential uses, and permits multi-family residential development, schools, public recreational facilities, and other uses with a Conditional Use Permit.
4. **Public**

This classification includes lands that are publicly or privately owned and operated for public purposes. It is included in the Institutional Zoning District in the Township’s Zoning Ordinance.

The Lake Elmo Airport and the Washington County Fairgrounds are included in this designation. The designation also includes the Bayport Wildlife Management Area and the St. Croix Savanna Scientific and Natural area and is managed by the Minnesota Department of Natural Resources.

5. **Institutional**

There is one area within the Township currently designated as an Institutional land use. This district permits uses such as public and private schools, government buildings, and other institutional uses. It also permits agriculture, single-family residences, and multifamily
residential uses. The St. Croix Preparatory Academy, a charter school that is part of the Stillwater School District, is located west of CSAH 21 and north of the Union Pacific Railroad Tracks. The City of Bayport provides of city sewer and water services to this property through a Joint Powers Agreement, executed in March 2008.
C. LAND USE GOALS AND POLICIES

Goals

1. Protect and preserve the rural residential character of the Township.

2. Maintain the geographic boundaries of the Township.

3. Encourage development to occur in an orderly manner that makes Baytown more attractive to residents and retains the rural character of the Township.

4. Require future development to be consistent with the adopted Comprehensive Plan.

5. Identify areas for rural and agriculture land uses where maximum densities are not greater than 4 units per 40 acres, and areas for rural residential land uses at maximum densities of 16 units per 40 acres.

6. Encourage the continuation of commercial and/or hobby farming as a viable land use to maintain rural character and as a way to contribute to the economic activity of the Township.

7. Study the flexibility options for subdivision that are included in the Zoning Ordinance (lot averaging and cluster subdivisions) given current problems in finding holders for conservation easements, and determine how to permit flexibility and achieve the Township’s land use goals.

8. Study the current and long-term use of the Fairgrounds site and adjacent areas, and determine if policy or ordinance changes are needed in this area.

9. Promote best management practices for stormwater management, habitat restoration, and natural resource conservation in development plans and projects.

10. Complete a study of the potential long-term use of the Fairgrounds property and compatibility with surrounding land uses.

Policies

1. The Township will update its Zoning Map and Ordinance to be consistent with the land use plan and goals in this Comprehensive Plan.

2. The Township will update its ordinances as needed to meet the natural resource goals in this plan and its Local Surface Water Management Plan.

3. All land development cost will be borne by the developer including but not limited to road construction, drainage improvements, landscaping, attorney fees, planning fees, and engineering fees associated with each.

4. Developers of new subdivisions must demonstrate that each newly created lot can accommodate, first, two (2) proper subsurface sewage treatment systems and,
second, a house meeting all setback requirements in both the zoning ordinance and subsurface sewage treatment system ordinance.

5. Requests for subdivisions of land must meet current Township and County regulations regarding adequate lot frontage, access, provision of septic/water, and other minimum lot requirements.
IV. Housing

The Township’s land use goals identify the Township’s intent to remain a low-density, single family residential community and maintain the rural and rural/residential character of the Township through 2040.

A. HOUSING CHARACTERISTICS

Baytown Township’s housing stock consists largely of single family residential homes. The Metropolitan Council provided the following data that describe the housing stock in the Township and its affordability to a variety of households.

<table>
<thead>
<tr>
<th>Table 1 Affordability ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units affordable to households with income at or below 30% of AMI</td>
</tr>
<tr>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2 Tenure ³</th>
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</thead>
<tbody>
<tr>
<td>Ownership units</td>
</tr>
<tr>
<td>618</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 3 Type ¹</th>
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</thead>
<tbody>
<tr>
<td>Single-family units</td>
</tr>
<tr>
<td>652</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4 Publicly Subsidized Units ⁴</th>
</tr>
</thead>
<tbody>
<tr>
<td>All publicly subsidized units</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 5 Housing Cost Burdened Households ⁵</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income at or below 30% of AMI</td>
</tr>
<tr>
<td>30</td>
</tr>
</tbody>
</table>

The U.S. Census data for 2014 and Metro Council data for 2015 provides the following information about the housing stock in Baytown Township:

- The Township included 652 households in 2015.
- The U.S. Census data showed that over 99% of the homes in the Township were single-family detached homes. Metro Council data indicates that all of the housing units are single-family detached units.
- The Census data indicated that few new housing units were added each year between 2007 and 2010—approximately 3-5 units each year. Since 2011, the numbers of new housing units constructed in the Township have increased to 12-20 new units each year, which is
similar to the numbers of new units constructed in the Township each year between 2000 and 2005.

- Approximately 95% of the homes in the Township are owner-occupied.

- The median home value in the Township was $509,200 in 2014. The Township has some of the highest home values in Washington County. The map below shows the estimated market value of homes in the Township in 2015.

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Senior Housing in Adjacent Areas

The Township has contributed to the development of housing for seniors in adjacent areas. The land where Boutwell's Landing and Oak Park Place are located was originally in Baytown, but was annexed to Oak Park Heights so that these homes could be developed with municipal sewer and water services.

Group Homes, Accessory Apartments and Housing for Care Givers

There are currently two group homes ("Community Residences") in Baytown Township.

The Township's Zoning Ordinance currently allows for accessory apartments within single family homes, and temporary housing units for persons receiving health care. These options provide for some diversity in housing, and can help to meet the needs of aging or disabled residents for care.

B. WASHINGTON COUNTY HOUSING STUDY

Maxfield Research, Inc. updated the Comprehensive Housing Needs Assessment for Washington County in 2013. This study examines current housing within the County and addresses housing needs for the County through 2030. Baytown Township is part of the Stillwater Market Area for this study.

The study found the following trends in housing in the Stillwater Market Area and Washington County:

- The Stillwater Market Area is expected to add between 2,000 and 5,000 people between 2013 and 2030.
- The number of people in each household continues to decline.
- The demand for rental housing is growing faster than the demand for owner housing. This includes housing for seniors and "Millenials"
- Employment continues to grow in Washington County as a whole. There is a gap between the average home value and what many workers in the County can afford. Workers in the County earn much less on average than County residents.
- The study projected a strong demand for all types of housing between 2013 and 2030 in Washington County, including both affordable and market-rate rental housing for seniors and the general population between 2013 and 2030.

C. HOUSING ISSUES

The major housing issue facing Baytown Township over the next 20 years is:

- Maintaining the quality of existing housing through code enforcement
The Town Board and its attorney are actively working to address maintenance and code violation issues on a number of properties in the Township, and will continue to do so as needed.

D. AFFORDABLE HOUSING - REGIONAL POLICIES

The Metropolitan Council has determined that Baytown Township does not have a share of the region’s need for low and moderate income housing.

E. HOUSING GOALS AND POLICIES

Goal

1. Retain low-density single family residential development and the rural character of Baytown Township.

Policies

1. Single family detached homes will be the preferred type of housing in Baytown Township.

2. Individual property owners will be encouraged and required to maintain or rehabilitate existing homes where needed to meet code and ordinance requirements.

3. Future housing development will work within the existing zoning framework of the Township to promote the rural residential character of the Township.

4. Washington County and Regional programs that meet the residential needs of a diverse and/or aging population through home improvement and housing assistance programs will be supported by the Township.

5. The Township will support the County and its Housing and Redevelopment Authority (HRA) to meet the need for future senior housing.

6. Home occupations will be regulated so as not to create problems with adjoining land uses.
V. Wastewater and Water Supply

A. WASTEWATER MANAGEMENT PLAN

I. Subsurface Septic Treatment Systems (SSTS) Management Program

Nearly all of the properties in Baytown Township rely on Subsurface Septic Treatment Systems (SSTS). Soils with limitations for installation of subsurface sewage treatment systems are identified in Exhibits 3C - 3E. However, since the data is not site specific, individual site reviews and detailed soil testing information is essential for proposed development. The Township requires on-site verification of soil conditions for each proposed parcel in a subdivision, as well as for each permit application for installation or repair of subsurface systems.

In 1972, Washington County adopted and implemented an ordinance regulating the location, design, installation, use, and maintenance of subsurface sewage systems with all of the unincorporated areas of the county. This ordinance has been revised several times to provide for minimum requirements which meet or exceed Minnesota Pollution Control Agency standards, and further provides for the certification and licensing of soil testers and subsurface sewage system designers, installers, pumpers and haulers. The County adopted the current SSTS ordinance (Ordinance 196) in 2015, and the adopted ordinance is in effect in Baytown Township and enforced by Washington County. The County’s ordinance incorporates MPCA regulations (Minn. Rules Chapter 7080-7083).

The key requirement of the County’s SSTS Ordinance as implemented in the Township is that all new lots must have adequate area for both a primary and back-up drainfield. Without soil borings confirming suitable areas for both drainfields, the Township will not approve a lot. In some cases, lots will need to be enlarged beyond the minimum lot size in order to meet these requirements.

The Township contracts with Washington County to provide inspection services of subsurface septic systems. This service meets State requirements for periodic inspections of subsurface systems. Homeowners are required to have these systems pumped no less than once every three years. The County permits, inspects, and enforces maintenance of these systems as part of the SSTS Ordinance.

The Township has adopted Washington County Ordinance 196 in its Zoning Ordinance to regulate the development of SSTS in the Township. The Township will continue to enforce this ordinance in cooperation with the County, and will continue to contract with Washington County for inspection of the SSTS in the Township.

The map below shows the locations of SSTS and Community Systems in the Township. The map source is the Washington County Groundwater Plan, 2014-2024.
2. **Private Wastewater Treatment Plants (Community Systems)**

As development is proposed, the Township considers the potential for community wastewater and water systems to meet environment/water resources goals. Community systems may be potential options for some subdivision. Community systems must meet County and State requirements.

3. **Centralized Sewer Services**

Regional sewer services are not available to most of Baytown Township. St. Croix Preparatory Academy is the only facility in the community that is served by centralized sewer services, provided by the City of Bayport.

The map that follows shows the location of regional interceptors and wastewater treatment plants near Baytown Township.
The Metro Council’s 2015 System Statement for Baytown Township states that “the Metropolitan Council has no immediate plans to provide additional regional wastewater services to Baytown Township. However, the central portion of Baytown township is located within the Council’s long-term wastewater service area (LTSSA), and as such the Township’s land use plan will be expected to guide development within the future service area at densities appropriate for economical wastewater service.”

The Township discussed the proposed change in meetings with Metro Council staff as it developed this plan. Copies of the meeting notes and correspondence with Council staff on this issue are included in the Exhibits to this plan. The discussions concluded that the Township requests that the LTSSA be removed from the Township, and the Metro Council staff concurred with that request, as follows:
• The Metro Council has recently completed an evaluation of the future capacity of the St. Croix Valley Wastewater Treatment Plan, and has determined that only one more minor expansion of the plant is feasible.

• Based on the evaluation of the St. Croix Valley Wastewater Treatment Plan, MCES staff stated that they are willing to eliminate the LTSSA within Baytown Township due to the capacity limits of the St. Croix Valley Plant.

• MCES staff also stated that if the entire Township is classified as Rural Residential, and the LTSSA is removed, this means that regional sewer infrastructure will not be available to Baytown Township.

• The Township agrees with the Council staff statements, and stated that the Township has no desire to develop its own municipal sewer system.

• The Town Board noted that one site in the Township (the St. Croix Preparatory Academy) was developed with municipal sewer services from the City of Bayport after the 2030 Comp Plan was approved. There could be requests for similar partnerships with adjacent communities to develop uses with services from other communities in the future. Metro Council staff noted that if this occurs, it will use capacity that is available to the providing community. The Township will need to request a Comprehensive Plan Amendment in order to approve development on some sites with urban services in the future. The Township agreed that it will use this process.

The proposed land use plan and wastewater system goals and policies included in this Comprehensive Plan update are consistent with the removal of the LTSSA from the Township, and the Township goal to utilize private waste water treatment systems and avoid developing its own municipal waste water system.

**B. WATER SUPPLY PLAN**

1. **Ground Water System**

Most of the homes and institutions in Baytown Township rely on private wells for water. Exceptions are discussed in item #4 below. The Town has no plans to provide municipal water services.

The Washington County Groundwater Plan, 2014-2024, 2015 Valley Branch Watershed District Management Plan, and the 2015 Middle St. Croix River WMO Management Plan include detailed descriptions and maps of the ground water system in and near Baytown Township. Most private wells in the Township utilize the Prairie du Chien-Jordan Aquifer, Platteville-Glenwood Aquifer, or the Tunnel City-Wonewoc (formerly Franconia-Ironton-Galesfille) aquifer. Groundwater generally flows through the Township from the west, toward the St. Croix River. The bedrock geology and aquifers in Township and adjacent areas are shown on the map below, included in the Washington County Groundwater Plan:
Most of Baytown Township is an aquifer recharge area. Precipitation infiltrates through soil layers and through some wetlands to recharge the aquifers below ground.

The St. Croix River bluffs includes areas of groundwater discharge, and the river itself is classified as a body that discharges groundwater.

The map below, provided by the Metropolitan Council, shows the surface water types in and near Baytown Township in relationship to groundwater resources.
2. Locations of Groundwater Level Monitoring and Aquifer Testing

The Minnesota Pollution Control Agency maintains a monitoring well on the boundary between Baytown Township and the City of Lake Elmo. The Valley Branch Watershed District has maintained a groundwater level monitoring network within the District since 1974, and continues to monitor groundwater levels approximately every other month. One of the wells is located in Baytown Township, south of McDonald Lake.

The Minnesota Health Department and Minnesota Department of Natural Resources also monitor groundwater levels near the Township. The monitoring locations are shown on the map below.
The map below shows the locations of existing wells in Baytown Township that are included in the Washington County Well Index. The map also shows the locations of sealed wells.

3. **Groundwater Management and Regulatory Areas**

Private well owners are responsible for their own drinking water quality. The county offers a private well water testing program for residents. This program includes consultation with Public Health and Environment Department staff about drinking water concerns and testing options for general drinking water quality (nitrate and coliform bacteria). The county program also offers other testing options for private well owners such as lead and arsenic.

The Minnesota Health Department (MDH) licenses well contractors, administers the permitting process for constructing wells and sealing abandoned wells, and inspects well in Washington County. The Minnesota Well Code became effective in 1974.

Local geologic conditions may require special well construction methods. The MDH also regulates well construction in regions of known contamination. These areas are designated Special Well and Boring Construction Areas (SWBCA). Baytown includes one of the SWBCA's in Washington County.

**SWBCA in Baytown Township, West Lakeland, and Bayport**

On May 6, 2988, the MDH issued a SWBCA for parts of Baytown Township, West Lakeland Township, and the City of Bayport in response to the discovery of VOC contaminants in several private wells in the area. The primary contaminant present in the SWBCA is trichloroethylene (TCE).
A Well Advisory Area has been designated by the Minnesota Department of Health in Baytown Township. This Well Advisory Area encompasses areas of Baytown Township, West Lakeland Township and the City of Bayport. In Baytown Township, it generally encompasses the central and southern half of the Township. Several suspected sources of the contaminants have been identified.

New individual wells can continue to be drilled in the Well Advisory Area in accordance with special guidelines set up by the Minnesota Department of Health and in accordance with the Township’s Ordinance No. 52. A letter from the Minnesota Department of Health dated March 30, 2005, discusses the Special Well Construction Area (SWCA) requirements of the well advisory area in detail and can be found in the Appendix of this Plan. In addition, a fact sheet updated in April of 2006 further discusses the Well Advisory Area. A site update report and remediation for the site are discussed in MPCA publications dated July 2007 and December 2007, respectively. These documents are included in the Appendix of this Plan and are discussed further below. The map below identifies the area of the SWCA as it relates to Baytown Township.

**Special Well Construction Area (SWBCA)**
**Portions of Baytown, West Lakeland, Bayport and Lake Elmo**

Baytown Township enacted an ordinance on September 8, 2003, pertaining to water testing and installation, ongoing testing, and maintenance of whole-house granular activated carbon (GAC) filters in the SWBCA. The ordinance requires residents to install an approved GAC filter when TCE or carbon tetrachloride is detected in a well at concentrations exceeding exposure limits. All filter installation, testing, and maintenance costs are the responsibility of the well owner. The ordinance requires periodic testing and reporting of results.
Some requirements of the ordinances do not apply if the MPCA is monitoring and maintaining a whole house GAC filter for the well owner. Currently, the MPCA will install, maintain, and test a whole house GAC filter for an existing well within the SWBCA that exceeds the interim exposure limit of 0.4 µg/L TCE, only if the well is located on property approved for development on or before April 9, 2002.

Baytown Township administers Ordinance 52. The Township maintains a tracking system and sends letters to residents with GAC filters on a tri-annual basis, follows up with residents until responses are provided, and ensures compliance with the Ordinance. Since the Ordinance was adopted, the Township’s efforts have been successful in ensuring the provision of safe drinking water to residents with individual wells. The Township currently has approximately 17 wells that are tracked through this process. All other individual wells with GAC filters are tracked by the MPCA. A copy of Ordinance No. 38 is included in the Appendix of this Plan.

Other Groundwater Regulatory Management Areas

In addition to the SWBCA, the Township is also included in the North and East metro Groundwater Management Area. Town Board members have attended meetings of this group, and keep the Board and residents informed about this area.

The MDH has designated a small area in the northeast corner of the Township as a Moderate to Highly Vulnerable Drinking Water Supply Management Area. The MDH regulates new wells in this area to protect this special water supply management area.

The map below, provided by the Metropolitan Council, shows all of the public water supply information for the Township and the regulatory management areas:
4. Joint Powers Agreements for Water Service

Baytown Township, in 2003, entered into a Joint Powers Agreement with the City of Bayport to provide public water service to several subdivisions in the Township. These subdivisions receive water service from the City and pay water bills to the City. A storage tank that serves these subdivisions and part of the Inspiration Development in the City is located on a hill in the Township. The addition of the water services for the St. Croix Preparatory Academy amended the existing Joint Powers Agreement in March 2008. The Township encourages new development proposals to amend existing Joint Powers Agreements or to evaluate new agreements to extend water services from community water supplies where it is feasible. The City of Bayport and Baytown Township have had a successful and cooperative relationship to extend water services to Township residents.
Baytown Township has discussed a community water supply system as a method of addressing the groundwater issues within the Township. The discussions concluded that the rural character of the Township with large lot residential development does not provide a fiscally feasible rationale for the development of a community water supply system by the Township. Given the proximity of Bayport and the existing relationship with that municipality, the Township encourages the evaluation of extending municipal water supply services to new developments through a joint powers agreement. The Township also encourages the evaluation of joint powers agreements with other municipalities with a community water supply.


The Washington County Groundwater Plan provides a county-wide framework for the protection and conservation of groundwater resources. The local watershed management organization management plans also provide detailed information on the interaction between groundwater and surface water resources within each district. All three plans include goals and policies that seek to protect the quality and quantity of ground water resources. The Township supports the County Groundwater Plan and the goals and policies related to groundwater resources in the watershed organization plans as a means to protect and conserve the County’s groundwater resources.

C. WASTE MANAGEMENT AND WATER SUPPLY – GOALS AND POLICIES

Goals

1. Work with Washington County, the Minnesota Health Department, and local residents to manage wastewater and water supply systems to protect the health, safety and welfare of the present and future residents of Baytown Township.

2. Continue to rely on private wastewater systems and water supply systems to provide waste water and water supply in Baytown Township. The Township will not develop its own municipal sewer or water system.

3. Support regular monitoring and inspection programs for private water supply and wastewater systems to protect the quality of groundwater resources.

4. Work with local Watershed Management Organizations to protect the quality of surface waters and related ground water resources by supporting the District Water Management Plan goals and policies, and by adopting and implementing the Township’s Local Surface Water Management Plan.
5. The Township will continue to support the MDH’s study efforts and planning for monitoring and other activities related to the Special Well Construction Area (SWCA) in Baytown Township.

Policies

1. Continue to work with Washington County to utilize Ordinance 196 to manage SSTS in the Township, and to contract with the County for SSTS Inspection services.

2. Enforce Ordinance 38 to manage wells and water supplies in the Special Well and Boring Construction Area.

3. The Minnesota Department of Health will continue to regulate new well construction pursuant to Minnesota Statutes, Chapter 1031 and Minnesota Rules, Chapter 4725 and new wells may only be constructed with the written approval of MDH.

4. All new septic systems will be placed above the 100-year flood levels of lakes, wetlands, ponds, and streams.

5. Protect individual water supply wells from contamination by enforcing ordinance requirements to exclude inadequate or improperly designed, located, or maintained subsurface sewage treatment systems.

6. Promote public awareness of proper use and maintenance of subsurface systems. Baytown Township will continue to require tri-annual inspections of septic systems by Washington County.

7. Permit new subsurface sewage treatment systems only where soil capabilities are adequate to provide for proper treatment system installations.

8. Require each lot developer to prove though soil borings and percolation test that there is sufficient area of suitable soils for the location of two (2) sewage system drainfields.

9. Receipt of a sewage treatment system permit prior to the issuance of a building permit is required.
VI. Local Water Management Plan

A. PURPOSE OF THE PLAN AND EXECUTIVE SUMMARY

This Local Surface Water Management Plan will guide Baytown Township in conserving, protecting and managing its surface water resources through 2040. This plan has been created to meet the requirements detailed in Minnesota Statutes 103B and Minnesota Rules 8410, administered by the Minnesota Board of Water and Soil Resources. This plan is also consistent with the goals and policies of the Metropolitan Council’s Water Resources Management Policy Plan, and the plans of the watershed management organizations having jurisdiction within the Township.

Baytown Township is located within the geographic area of two watershed management organizations (WMO’s): the Valley Branch Watershed District and the Middle St. Croix Watershed Management Organization (Exhibit 7). The eastern area of Baytown Township drains to the St. Croix River through the Middle St. Croix WMO. The western portion of the community drains to the Valley Branch Watershed, and from there to the St. Croix River. The boundaries of the water management organization is shown on the map below.

The Valley Branch Watershed District 2015-2025 Watershed Management Plan and the Middle St. Croix WMO Watershed Management Plan were adopted in September, 2015. The Township reviewed those plans and adopts the plans and rules by reference in this Local Water Management Plan. This plan is consistent with the watershed management organization plans. The Township will need to update this LWMP again within two years of the next expiration date of the local water management organization plans.

B. WATER RESOURCE MANAGEMENT AGREEMENTS

The watershed organizations within Baytown Township have each adopted rules for the management of surface waters within their jurisdictions. Township works cooperatively with the WMO’s in communicating on development activities, and alerts landowners and developers about potential district permits or other enforcement. The Subdivision Application Process for development applications within Baytown Township describes the responsibilities of each organization included in the process. This document is included in the Appendix.

Baytown Township is a member of the Middle St. Croix WMO, and has signed the Joint Powers Agreement that created and maintains the WMO.

The Township will enforce storm water rules with the Middle St. Croix Watershed Management Organization based on the new Stormwater Ordinance that the Township will adopt in 2016. Valley Branch Watershed District enforces surface water management regulations within its geographical area within the Township.

The Township has an agreement with the Washington Conservation District to manage regulation and permitting.
C. LAND USE, WATER AND NATURAL RESOURCES IN BAYTOWN TOWNSHIP

I. Land Use in Baytown Township

Land use in Baytown Township is dominated by rural residential and agricultural uses. Chapter III of the 2040 Comprehensive Plan provides a detailed discussion of existing and planned future land uses in the Township. The Township’s land use goals and policies for 2040 will maintain the existing types and patterns of land uses in the Township for the duration of the 2040 Comprehensive Plan. The table below summarizes the existing land uses in the Township based on Metropolitan Council data.

The figure following the table shows the Township’s proposed 2040 Land Use Plan, and is included in the 2040 Comprehensive Plan.

<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>2005 Acres</th>
<th>2010 Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Undeveloped</td>
<td>3,529</td>
<td>3,182</td>
</tr>
<tr>
<td>Residential</td>
<td>1,035</td>
<td>1,115</td>
</tr>
<tr>
<td>Industrial and Utility</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Extractive (mining)</td>
<td>84</td>
<td>100</td>
</tr>
<tr>
<td>Institutional</td>
<td>108</td>
<td>138</td>
</tr>
<tr>
<td>Commercial/Mixed use</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Park, Recreation, Open Space</td>
<td>149</td>
<td>356</td>
</tr>
<tr>
<td>Major Roadways</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Airport</td>
<td>271</td>
<td>271</td>
</tr>
<tr>
<td>Open Water</td>
<td>691</td>
<td>691</td>
</tr>
<tr>
<td>Total</td>
<td>5,870</td>
<td>5,870</td>
</tr>
</tbody>
</table>
2. **Surface Water Resources**

**Valley Branch Watershed District**

The Valley Branch Watershed District (VBWD) drains Valley Creek, and from the creek to the St. Croix River, an Outstanding Resource Value Water. The Watershed District includes a number of subwatersheds that drain to landlocked basins (lakes or wetlands), as well as subwatersheds that drain to Valley Creek. The major subwatershed districts within the VBWD that are located within Baytown Township include the Cloverdale Lake, McDonald Lake, Bay Lake and Downs Lake Subwatersheds.

The Watershed also includes numerous wetlands, mainly within the watersheds of Cloverdale and McDonald Lakes. These are included in the Environmental Features Map, Exhibit 6. The major lakes and wetlands, and their protected waters numbers are listed in the table below.

The VBWD has classified lakes in the District based on criteria included in its plan. The District policies state that it will manage waterbodies according to their classification to maintain or improve their existing water quality, and to promote biodiversity and aesthetics.

The VBWD classifications of lakes within Baytown Township include the following;

- Cloverdale Lake - Medium Priority
- McDonald Lake - Medium Priority
- Bay Lake - Low Priority

There are no waterbodies classified as “impaired” within the portion of Baytown Township within the VBWD. The District drains to the St. Croix River which the MPCA has classified as an impaired water.

**Middle St. Croix WMO (MSCWMO)**

The Middle St. Croix Watershed Management Plan notes that the hydrologic system of the Middle St. Croix watershed is unique among watersheds in Washington County in that it is not one contiguous watershed draining to one outlet. The Middle St. Croix watershed drainage system includes two general areas: 1) an area of small ponds and lakes, most of which are landlocked, and 2) an area with many perennial and ephemeral streams that flow parallel to each other and into the St. Croix River. The western portion of Baytown Township is included in the first area of landlocked basins, and the eastern portion of the Township is located in the second area, including the St. Croix River bluffs.
Protected Waters within Baytown Township

The table below provides the list of Protected Waters and Wetlands within Baytown Township.

**Table 13: List Of Protected Waters Within Baytown Township**

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>82-1</td>
<td>St. Croix Lake</td>
</tr>
<tr>
<td>82-310</td>
<td>Unnamed Lake</td>
</tr>
<tr>
<td>Section 30 - Township 29 - Range 20</td>
<td>Unnamed Tributary</td>
</tr>
<tr>
<td>82-9</td>
<td>Coverdale Lake</td>
</tr>
<tr>
<td>82-1C</td>
<td>McDonald Lake</td>
</tr>
<tr>
<td>82-11</td>
<td>Unnamed Lake</td>
</tr>
<tr>
<td>82-311</td>
<td>Unnamed Wetland</td>
</tr>
<tr>
<td>82-312</td>
<td>Unnamed Wetland</td>
</tr>
</tbody>
</table>

Impaired and Outstanding Resource Waters

Impaired waters within or downstream from Baytown Township include the following:

**Table 14: Impaired Waters**

<table>
<thead>
<tr>
<th>Waterbody</th>
<th>Impaired Use</th>
<th>Pollutant or Stressor</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Croix River</td>
<td>Aquatic Consumption</td>
<td>Mercury in Fish Tissue, PCB in Fish Tissue</td>
</tr>
<tr>
<td>Lake St. Croix</td>
<td>Aquatic Recreation</td>
<td>Phosphorus</td>
</tr>
</tbody>
</table>

The VBWD drains to the St. Croix River. The District’s Management Plan indicates that the TMDL study for this portion of the St. Croix is in process.

The MSCWMO drains to Lake St. Croix, the lower 25 miles of the St. Croix River between Stillwater, MN and Prescott, WI. The Lake St. Croix was designated as impaired in 2008 for excess phosphorus. The WMO Management Plan notes that the Lake St. Croix Nutrient TMDL was completed in 2012 by the MPCA and the Wisconsin Department of Natural Resources. The TMDL Implementation Plan was completed in February 2013. The Township has updated its stormwater management ordinance in cooperation with the MSCWMO to be compliant with the TMDL and WMO rules.

The State of Minnesota has also designed the St. Croix River as an Outstanding Resource Value Water.
Upland Resources

The presettlement vegetation in Baytown Township was dominated by oak savanna and oak openings, with smaller areas of hardwood forest (called the “Big Woods”) and prairies. Much of this original vegetation has been replaced as a result of agricultural or residential land use.

A few areas of relatively natural vegetation remain today within Baytown Township. These areas were identified by the Minnesota DNR’s Natural Heritage Program. The areas include a woodland area on the east side of McDonald Lake, and a prairie located within the St. Croix Savanna SNA in the southeast corner of Baytown Township, noted on the Environmental Features Map (Exhibit 6) in the 2040 Comprehensive Plan.

Other natural and scenic resources of Baytown Township include the steep topography near the lakes and St. Croix River, and the aggregate resources in the eastern portion of the community near the St. Croix River bluffs.

Groundwater Resources and Issues

Due to local soils and geology, the aquifers in and near Baytown Township are highly sensitive to contamination. Most soils in the area are classified as moderate to highly permeable, and bedrock is close to the surface in the eastern portion of the Township, including the bluff areas near the St. Croix River.

Past land use practices have polluted groundwater aquifers in the area. A well advisory area has been established in the Baytown - West Lakeland area. The Baytown/West Lakeland Special Well Construction Area (SWCA) has been identified from just west of the Lake Elmo Airport through Baytown Township and Bayport to the St. Croix River. The area of contamination is approximately six square miles in size. The main source of volatile organic compounds (VOCs) causing groundwater contamination in the Baytown/West Lakeland SWCA has been identified as a former metal working shop in Lake Elmo. The Baytown Township SWCA is currently being monitored by the Minnesota Pollution Control Agency.

The groundwater resources in the Township, relationship to its water supply, and the Township’s goals and policies related to groundwater resources are included in the Water Supply Plan (Chapter V) of the 2040 Comprehensive Plan.
D. EXISTING AND POTENTIAL WATER RESOURCE PROBLEMS

Each of the watershed management organizations in the Township has identified the water resource problems within its geographic area. The Township concurs with this assessment, and has summarized the information included in each of the organizations’ plans below.

I. Valley Branch Watershed District

The Valley Branch Watershed District Plan identifies the following significant water management issues in its plan:

- Water quality degradation
- Aquatic invasive species control and management
- Water quality monitoring and reporting
- Implementation and maintenance of water quality improvement projects
- Collaboration with other entities to reduce pollutant loading and improve water quality
- Flooding and water level issues
- Surface water/ground water interaction
- Management of groundwater quality and quantity
- Participation in local and regional groundwater management planning
- Managing the impacts of erosion and sedimentation

The Goals and Policy section of this plan identifies the specific areas in which Baytown Township will contribute to the efforts to protect and improve surface and ground water management within the Watershed District to address the issues identified above and the goals in the District plan.

The District has completed lake management plans for four lakes whose subwatersheds are included within the Township. The issues identified for each of these water bodies are summarized as follows:

- Cloverdale Lake - Medium Priority Lake - the lake is ranked “excellent” for water quality. It is a landlocked lake, and water levels have risen dramatically since the 1990’s. The lake has no public access, and the shoreland area is managed through covenants applied to surrounding residential areas. The lake is monitored by a VBWD volunteer.

- McDonald Lake - Medium Priority - McDonald Lake is a landlocked lake within a watershed that is nearly fully-developed. The water clarity is excellent. The VBWD regularly monitors the lake, but will not actively manage the level of the lake. A portion of the lake lies within the Baytown Township Special Well Construction Area (SWCA).

- Bay Lake - Low Priority - Bay Lake is a shallow lake with poor water quality. It is a landlocked lake. The management of the Baytown Township SWCA may impact the water levels of the lake. The MPCA, in cooperation with the VBWD, performed a
Watershed Restoration and Protection Strategies (WRAPS) study of the lake to address impaired and degraded waters within the VBWD. The study was completed in 2015.

- Downs Lake - Downs Lake is located within Lake Elmo, but a portion of its drainage area is located in Baytown Township. A portion of the lake is within the Baytown Township SWCA. The lake is shallow, and has a water poor water quality ranking. The MPCA, in cooperation with the VBWD, performed a Watershed Restoration and Protection Strategies (WRAPS) study of the lake to address impaired and degraded waters within the VBWD. The study was completed in 2015.

2. **Middle St. Croix Watershed**

No priority lakes have been identified within the Middle St. Croix Watershed area. The watershed drains through several creeks to the St. Croix River. Managing runoff, erosion, and sediment control to minimize impacts to the St. Croix is a concern within this watershed area.

The Watershed includes numerous land-locked basins. Managing the volume and rate of runoff to avoid flooding and impacts to these basins are an issue of concern within the watershed.

The MSCWMO Plan identifies a long list of issues for the District to address between 2015-2025. A summary of the issues related to Baytown Township includes the following:

- Provide education and outreach to landowners to promote practices that reduce pollutants using a variety of communication methods
- Develop specific goals and policies that will control soil erosion and identify controls, programs, and organizations responsible for controlling soil erosion
- Address potential for groundwater contamination in wellhead protection areas
- Develop long-term plans for water monitoring and cost-share program
- Address issues and process for small project reviews
- Manage runoff quantity, including establishing peak flow reductions strategies, maximum allowable runoff rates, and runoff from new development
- Address flooding issues in the watershed

The Township has included goals and policies in this LWMP to assist where it can to address the issues identified above, and to be consistent with the goals in the WMO plan.
E. GOALS AND POLICIES

Baytown Township will protect and manage its valuable water and natural resources in cooperation with the local watershed management organizations. The Township recognizes the need to work with others, including the Valley Branch Watershed District (VBWD), Middle St. Croix Watershed Management Organization (MSCWMO), Washington County, and the State of Minnesota to achieve its goals for the protection of surface waters, ground water and related natural resources within the community.

The VBWD has adopted its 2015-2015 Watershed Management Plan and rules, and has the primary role for enforcing surface water regulations within portions of Baytown Township included in the VBWD. The Township will continue this relationship, and will support the VBWD efforts by updating and enforcing its Zoning and Subdivision Ordinance, as described in the goals and policies that follow.

The MSCWMO has adopted its 2015-2025 Watershed Management Plan and rules, and is requesting that the communities within the WMO adopt their own ordinances for surface water management, and enforce these ordinances. The MSCWMO staff and Township have developed a draft ordinance with standards consistent with the District’s rules, included in the Appendices to this plan. Upon adoption of the ordinance (expected in 2016) the Township will adopt and enforce the MSCWMO rules and standards for surface water management within the Township areas that are part of the MSCWMO.

**Goal 1:** Baytown Township is committed to a goal of nondegradation of the lakes, wetlands, streams, and groundwater within the Township, and will work with local WMO’s, Washington County and State agencies to achieve this goal.

**Policy:** The Township will work cooperatively with local watershed organizations, state agencies and landowners to protect local wetlands, lakes, streams and groundwater, to preserve the values of these resources for future generations.

**Policy:** The Township concurs with the Valley Branch Watershed District’s Water Management Plan and rules and the Middle St. Croix Watershed Management Organizations Watershed Plan and rules.

**Policy:** The V3WD will continue to enforce surface water regulations within the Township area that is within the District’s boundaries.

**Policy:** The Township will adopt an Ordinance consistent with the MSCWMO performance standards and requirements for stormwater management, wetland management, and resource protection. The Township will enforce these requirements, with review and implementation assistance from MSCWMO staff and Board.

**Policy:** The Township will support the VBWD implementation of its standards for control of peak runoff, infiltration and filtration, and best management practices to control Total Suspended Solids (TSS), Total Phosphorus (TP), and runoff from development or redevelopment within the Township. The District will play the
primary role in reviewing the stormwater plans for development applications within its portion of the Township, and implement its rules through the review and permit process.

Policy: The Township will manage land use to support protection of surface and ground waters within the Township through its Zoning and Subdivision Ordinance, including:

- Land Use Plan and Zoning Regulations
- Subdivision Regulations
- Shoreland Ordinance #2002-01 (County ordinance)
- Floodplain Ordinance #2002-94 (County ordinance)
- Stormwater Management Ordinance

Policy: The Township will managing land use to protect ground water resources through implementation of its Comprehensive Plan, Zoning and Subdivision Regulations, and the following Ordinances:

- Township Ordinance 38 - Maintenance of Well Water Treatment
- Washington County Ordinance 196 – Subsurface Septic Treatment Systems

**Goal 2: Protect the quality of local lakes.**

Policy: The Township supports the Valley Branch Watershed District’s goals and monitoring programs for managing lakes in the Township, including goals to address the spread and impacts of aquatic invasive species.

Policy: The Township will implement its land use plan, and zoning and subdivision ordinances to protect shoreland areas and lake water quality, and work with the VBWD to achieve lake management goals.

Policy: The Township will continue to cooperate with Washington County to manage shoreland areas under the Washington County Shoreland Ordinance, which has been approved by the Minnesota DNR.

**Goal 3: Protect wetland resources.**

Policy: The Township will support the Watershed Organizations’ Wetland Management Plans. These plans include functions and values assessments of the wetlands in the Township, and wetland management requirements.

Policy: The Township will continue to contract with the Washington Conservation District to provide wetland management services to the Township.

Policy: The Township supports and will adopt VBWD and MSCWMO requirements for wetland buffers based on the functions and values assessments and wetland
classifications identified in the WMO Wetland Management Plans, and will enforce these requirements throughout the Township.

Policy: Wetlands that have not been inventoried will be required to complete a functions and values assessment as a part of the development application. VBWD and MSCWMO rules regarding wetland management will be applied based on the results of the assessment and the wetland classification.

Goal 4: Protect the quality of Outstanding Resource Value Waters (ORVW), including the St. Croix River and Valley Creek.

Policy: The Township will work with the Watershed Management Organizations and other agencies to achieve the nondegradation goals for ORV Waters by implementing its Zoning and Subdivision Ordinances, Shoreland and Floodplain Ordinances, and Stormwater Ordinance.

Goal 5: Protect groundwater quality.

Policy: The Township will cooperate with the Minnesota Pollution Control Agency, Minnesota Department of Health, and local watershed management organizations to address groundwater quality issues, and enforce its Zoning and Subdivision ordinances, Ordinance 38, and Washington County’s enforcement of its SSTS Ordinance to protect groundwater quality.

Goal 6: Manage groundwater recharge areas.

Policy: The Township will cooperate with the Minnesota Pollution Control Agency, Minnesota Department of Health, and local watershed management organizations to manage groundwater recharge areas.

Goal 7: Provide education and outreach to residents to encourage good stewardship of surface and groundwater resources

Policy: The Township will cooperate with VBWD and MSCWMO efforts to provide education and outreach to local residents to promote good stewardship of water and natural resources and reduce pollution and degradation of these resources. The Township will include information in its newsletter and on its website as available to support education and outreach efforts.
F. IMPLEMENTATION PLAN AND AMENDMENTS

Baytown Township is a rural community, and is not an MS4 (Municipal Separated Storm Sewer System) community. It does not own or operate any storm water management facilities, and does not plan to develop any facilities through 2040. The Township does own, inspect, and manage culverts, ditches, and drainage within the Township road rights-of-way. Town Board members inspect these facilities, identify needs for maintenance, and ensure that it is completed.

The Township will complete the specific actions listed below to implement this Local Water Management Plan:

1. The Township concurs with and adopts the VBWD and MSCWMO Water Management Plans and rules.

2. The Township will adopt its Stormwater Management Ordinance, and will enforce the ordinance for erosion control, surface water management, and land disturbance activities within the MSCWMO portions of the Township. Valley Branch Watershed District will continue to enforce its rules and regulations within its geographic area.

3. The Township will continue to manage land use, subdivision, private well maintenance, and subsurface septic treatment systems based on its ordinances and in cooperation with the Minnesota Department of Health and Washington County.

4. The Township supports the cost-share and monitoring projects included in the watershed management organization plans, and will provide information about these programs and watershed stewardship to Township residents.

5. The Township will implement its road maintenance policies, including the use of vegetated swales along its roadways to filter and absorb stormwater and associated pollutants, and minimize the use of salt and sand.

Capital Improvement Plan

The Township does not have a Capital Improvements Program (CIP). Improvements needed to culverts or other Township facilities will be funded through the Township’s annual budget. Any storm water facilities outside Township property will be developed by the watershed management organizations under their CIP plans, or by private developers.

Plan Timetable and Amendments

This LWMP will be amended as needed with future updates to the watershed management organization plans and the Township’s Comprehensive Plan.
VII. COMMUNITY FACILITIES AND SERVICES

Baytown Township owns and manages its Town Hall, but does not own or operate community wastewater, dringing water, or stormwater infrastructure.

The Washington County Sheriff's Office is currently providing police protection to Baytown Township and is expected to continue to provide this service.
VIII. Transportation

A. INTRODUCTION

The transporation system in Baytown Township includes state, county, and local roads, trails, a rail corridor, and Lake Elmo Airport: a diverse transportation system that meets many needs for movement and access.

The Township does not expect significant changes to its local transportation facilities through 2040. This chapter identifies current transportation facilities, expected growth in facility use, and transportation issues for the 2040 planning period. The Township obtained much of the data and mapped information included in this chapter from recent Metropolitan Council and Washington County plans and maps. The Township reviewed the transportation goals and policies included in the Council’s 2015 System Statement and 2040 Transportation Policy Plan, and the Township developed its goals and policies to be consistent with the regional goals and policies for transportation infrastructure. This Comprehensive Plan provides guidance as the Township plans for its local transportation system and works with other entities on transportation issues.

This chapter:

- Summarizes the existing transportation facilities in the Township and expected growth and change
- Identifies key issues for the future surface transportation system
- Reviews existing and proposed aviation facilities
- Includes the Township’s goals and policies to guide transportation planning

B. ROADWAYS

1. Roadway System

Baytown Township is served by a combination of State, County and local roads. The Existing Transportation System and Functional Classification System Map below shows the major roadways in and near Baytown Township and the functional classification of each existing road.
Functional Classification of Roadways--Baytown Township
Classification of streets and highways is the first step in preparing a coordinated transportation plan. Functional classification involves the determination of what function each street or highway should perform before determining street widths, speed limits, intersection control or other design features. The attractiveness of functional classification assures that non-transportation factors such as land use and development are taken into account.

The functional classification of roadways in Baytown Township includes:

*Minor Expanders* - A street or highway which connects adjacent subregions. Minor arterials are primarily oriented toward the provision of sub-metropolitan mobility and any land access should be oriented to public streets and major generators rather than closely spaced driveways onto the street.

The Expander roadways in Baytown Township include Manning Avenue (CSAH 15) and Stillwater Boulevard North (State Highway 5).

*Minor Connectors* – streets primarily oriented toward mobility to destinations within the metropolitan region. Mobility is generally prioritized over access to individual parcels.

40th Street, Olinda Avenue and 47th Street North (all part of CSAH 14), Osgood Avenue North (CSAH 24), Stagecoach Trail (CSAH 21), and St. Croix Trail North (State Highway 95) are classified as A Minor Connectors.

*Major Collector* – collector roadways provide connections between neighborhoods and from neighborhoods to regional job concentrations and local centers. They provide for mobility and for land access.

30th Street North and Oakgreen Avenue North are Collector roadways.

*Local* - A street which functions to provide access to land with neighborhoods rather than to car traffic though.
There are no principal arterials within Baytown Township's limits. State Highway 36 is classified as a principal arterial. This highway runs east-west and terminates at the St. Croix River. This highway is located along the northern border of Oak Park Heights. Several Expander and Connector roadways in Baytown Township provide connections to State Highway 36.

All other roads not specifically mentioned above are considered local roads.

The Township completed a road inventory and pavement management plan in 2016. The majority of local roads in the Township are paved. The Township has few gravel roads left and requires new developments to provide bituminous surfaced roads.

2. County Traffic Volumes, Forecasts, and Capital Improvements Plan

Washington County updated its estimates of average daily traffic volumes for arterials and collectors in Washington County in its 2030 Comprehensive Plan. The map below shows existing traffic volumes at selected locations on County roadways in Baytown Township in 2015. The highest volumes are on CSAH 15 (Manning Avenue), with average daily traffic volumes up to 13,400 near the intersection of CSAH 15 and CSAH 14. CSAH 14 has a wide range in traffic volumes at locations between CSAH 15 (Manning Avenue) and State Highway 95 (St. Croix Trail North). CSAH 21 (Stagecoach Trail North) carries about 6,000 vehicles per day in Baytown Township. State Highway 95 carries about 12,000 vehicles per day in Baytown.

Washington County 2015 Traffic Volumes in Baytown Township

In comparing 2007 volumes with forecasted 2030 volumes, the County predicts that CSAH 15 will see a substantial growth in traffic, to 16,000 to 22,000 vehicles per day through Baytown Township. CSAH 14 will increase to 9,000 vehicles per day on its west end with lower volumes to the east. State Highway 95 daily volumes will increase to nearly 15,000 vehicles per day. The
County forecasts that all arterials and collectors in and around the Township will increase in traffic due to growth north and east of Baytown.

The County’s most recent Capital Improvement Plan (2016-2020) lists proposed improvements in the area of CSAH 14, 21, and 24 in Baytown Township. The County has recently started the design process for the CSAH 21 (Stagecoach Trail North) Project from I-94 to 56th Street North in Oak Park Heights. Baytown Township is involved in that process.

3. Transportation Analysis Zones (TAZ’s) and Forecasts

Transportation Analysis Zones (TAZs) are a planning tool used to determine how land use relates to the transportation system. The population, household and employment forecasts are allocated to the TAZs that share the Township’s geography. These allocations are detailed in the table below. The Township used Washington County’s transportation modeling data to complete this portion of the Plan Update and the TAZ data described below indicates estimates and forecasts derived from Washington County.

The TAZ’s in Baytown Township are shown on the map below.

The Township is included in 4 full TAZ zones and parts of 3 TAZ zones that overlap with neighboring communities. The population, household, and employment forecasts for each TAZ are consistent with the Metropolitan Council forecasts for Baytown Township, and indicate slow growth through 2040 throughout the Township.
### TAZ Forecast Data

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<th>TAZ</th>
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<th>2020</th>
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<td>Employment</td>
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**Forecast Totals**

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<th>2010</th>
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<th>2030</th>
<th>2040</th>
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<tr>
<td></td>
<td>Households</td>
<td>573</td>
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<td>760</td>
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<tr>
<td></td>
<td>Employment</td>
<td>69</td>
<td>160</td>
<td>210</td>
<td>260</td>
</tr>
</tbody>
</table>

*Forecast data were estimated for the area of these TAZ within Baytown only based on land use, developable parcels, population, household and employment projections.*
4. **Access Management**

The Township works with Washington County to regulate the number of access points to County roads and with Mn/DOT regarding access onto State Highways. The Township’s Subdivision Regulations incorporate spacing and access guidelines for county, state and local roadways. The land use associated with proposed access points also determines the appropriate spacing.

**C. TRANSIT**

Baytown Township is located in Transit Market Area V. The Metropolitan Council’s description of this market area and typical transit services is the following:

Market Area V – Transit Market Area V has very low population and employment densities and tends to be primarily Rural communities and Agricultural uses. General public dial-a-ride service may be appropriate here, but due to the very low-intensity land uses these areas are not well-suited for fixed-route transit service.

The 2040 Regional Transportation Policy Plan does not show any transitway investments planned within Baytown Township in the Current Revenue Scenario. The proposed Gold Line BRT is proposed along I-94 outside the Township. The longer-term revenue scenario also shows an additional potential transitway along Highway 36, north of the Township.
D. PEDESTRIAN AND BICYCLE FACILITIES

The 2040 Regional Transportation Policy Plan identifies three Regional Bike Transportation Network (RBTN) corridors within or near Baytown Township, shown on the map below:

One corridor is planned alongside the Township's western border (generally following the CSAH 5 and 15 corridors), and others are identified along the CSAH 14, 24, and 21 corridors. The proposed regional bike trails on the CSAH 5/15 and 21 corridors are generally aligned with proposed Regional Trail corridors. The Township will identify the RBTN corridors on its Parks, Trails and Open Space map. The Township also considers pedestrian accommodations along new local roads through the development review process. Planning for trails is discussed further in the Parks and Trails section of the Plan.
E. AIRPORTS

The Lake Elmo Airport is a general aviation airport owned by the Metropolitan Airport Commission (MAC) and operated by MAC for public use. The Lake Elmo Airport is located in Washington County, approximately 12 miles east of the downtown St. Paul business district. It lies one mile east of downtown Lake Elmo, within Baytown Township, and is bordered by West Lakeland Township and the City of Lake Elmo. The airport encompasses approximately 640 acres, approximately 560 acres of which is in Baytown Township. The remaining 80 acres are in West Lakeland Township to the south of 30th Street. The airport consists of a paved and lighted mainwind NW/SE runway and a paved NE/SW crosswind runway, including parallel taxiways. The primary runway is 2,850 feet long and 75 feet wide. The crosswind runway is 2,497 feet long and 75 feet wide.

The Lake Elmo Airport serves as a reliever to the Minneapolis-St. Paul International Airport. Service is provided to operators of single engine and light twin engine, propeller craft primarily for training, pleasure and business flying activities. Capacity of the existing facility at the Lake Elmo Airport is estimated at 230,000 annual operations. Aircraft operations for 2012 were estimated at approximately 25,000. Current airport operations are below its capacity.
1. The Lake Elmo Airport Long-Term Comprehensive Plan

The adopted long-term comprehensive plan (LTCP) for the Lake Elmo Airport was approved in 2008. The Metropolitan Airports Commission has developed a Draft 2035 LTCP for the Lake Elmo airport that will cover the time period from 2015-2035. Baytown Township Board members and residents have participated in the public review and comment meetings for the new LTCP. The Draft LTCP states that the key objectives for the plan include:

- Address failing end-of-life infrastructure
- Enhance Safety
- Improve operational capabilities for the design aircraft family, i.e., propeller-driven aircraft with fewer than 10 passenger seats.

The airport’s existing layout is are shown on the figure below that was included in the Draft 2035 LTCP. The location of the airport within the Township is identified on Exhibit 9, the Township’s Land Use Plan.
The forecast scenarios included in the Lake Elmo Airport Draft 2035 LTCP Figure ES-2 predict little change in aviation activity through 2030. The “high range” forecast predicts slight increase in aircraft operations, but the low-range figure suggests a slight decline in operations.

**Figure ES-2: Lake Elmo Airport 2035 LTCP Forecast Comparison by Scenario**

2. **Proposed Airport Development 2015-2035**

The Draft 2035 LTCP includes relocating and lengthing the primary runway at the Lake Elmo Airport. The Metropolitan Airports Commission analyzed four development alternatives, which are described in the plan. The recommended preferred alternative is shown in red on an aerial photo from the plan, below.

The proposed expansion will be to the south of the existing airport runway, into West Lakeland Township. The proposed expansion will not impact Baytown Township.
The expansion of the runway is not expected to change the airport’s Runway Protection Zones (RPZ’s) or noise contours within Baytown Township. The figure below from the Draft 2035 LTCP shows the expected RPZ’s and noise contours after expansion. The airports’s RPZ’s do not extend outside the airport property. The lowest-level noise contour is located within the airport property in Baytown Township, and over an adjacent acre of land that is zoned for large-lot single family residential use. This small area is within the required setbacks from the Union Pacific Railroad corridor, and no structures may be developed on the property.

The State Safety zones for the airport’s runways extend over airport property and over an area that is zoned for large-lot single family residential use.
3. **Planning and Zoning Considerations**

The Township is within part of the Influence Area of the Lake Elmo Airport, and must address the following planning and zoning issues related to the airport:

- Identify policies and ordinances that protect regional airspace from obstructions, and how the community will notify the FAA of proposed structures.
- Recognize seaplane use on surface waters as designated and regulated by MnDOT, and consider land use compatibility with these areas.
- Map facilities such as radio beacons or air navigation aids that are sited off-airport, and whether the Township hosts one of these facilities.
- Map the airport location including existing and future boundaries, access locations, and runways.
- Describe the future functional and operational characteristics for the airport.
- Assess existing and potential noise impacts of airport operations.
- Evaluate land use capability issues and establish policies if needed.
- Address the updated state airport noise zoning rules.

The issues are addressed in the items that follow and in the maps included in this chapter.

**Airspace Obstructions**

The Minnesota Rules 8800.1200 to 8800.2400 establishes the criteria for determining obstructions to air navigation. The most relevant issue is the maximum obstruction height of 200 feet with three miles of a runway. The Township’s Ordinances must include regulations to control height of structures, especially when conditional use permits apply. The Township must also comply with the requirements regarding the notification to the Federal Aviation Administration (FAA) defined under code of federal regulations CFR-Part 77, using FAA Form 7460-1 “Notice of Proposed Construction or Alteration.”.

- Currently, there are no any structures exceeding 200 feet in height in the Township. The Zoning Ordinance permits a maximum structure height of 35 feet in all districts. The only structures that may exceed this height are new wireless communication or radio towers. New towers are permitted with a conditional use permit, and based on the performance standards in the Township’s Zoning Ordinance, these structures can only be allowed if the proposed structure will not constitute an obstruction to air navigation or otherwise adversely impact the Metropolitan airport system.
- The Township will require applicants to file form FAA 7460-1 “Notice of Proposed Construction or Alteration” for structures that exceed the standards identified in Federal regulations.

Seaplane Use

Under Mn/DOT Office of Aeronautics, MR 8800.2800, seaplane operations are permitted on the surface waters of the St. Croix River.

The area of the Township that is adjacent to the St. Croix River is zoned for Agricultural Use. The maximum height permitted in this zoning district is 35 feet. The uses permitted in this district will not conflict with and are compatible with seaplane operations.

Radio Beacons or Navigational Aids

There are no off-airport radio beacons or navigational aids in Baytown Township.

Airport Location, Boundaries, and Access Locations

The Township’s 2040 Land Use Map, Exhibit 9 in Chapter III, shows the location of the airport within the Township and its current boundaries. Figures ES-1 and ES-5 included in this chapter show the current facilities and boundaries that are included in the adopted Lake Elmo Airport LTCP (2008) and the proposed facilities and boundaries identified in the preferred alternative in the Draft LTCP for 2015-2035. The airport boundaries with Baytown Township would not change if the preferred alternative is adopted in the 2015-2035 LTCP.

Future Functional and Operational Characteristics of the Airport

The Lake Elmo Airport serves as a reliever to the Minneapolis-St. Paul International Airport. Service is provided to operators of single engine and light twin engine, propeller craft primarily for training, pleasure and business flying activities. Capacity of the existing facility at the Lake Elmo Airport is estimated at 230,000 annual operations. Aircraft operations for 2012 were estimated at approximately 25,000. Current airport operations are below its capacity. The Airport’s LTCP for 2015-2035 estimates that airport operations are likely to remain near currently levels or may increase slightly.

Noise Impacts of Airport Operations

The Metropolitan Airports Commission has prepared a noise contour map for the current conditions at the airport, and for the preferred alternative identified in the LTCP for 2015-2015. The noise contours within Baytown Township would not change from the current conditions if the preferred alternative is adopted. Portions of the 55 DNL contour are located within the Township—on the airport property, and on some parcels adjacent to the airport that are currently zoned for large-lot single-family residential development. The Township’s 2040 Land Use Plan proposes that the area will continue to be occupied by single-family residential development on large lots.
Table L-3 in the Metropolitan Council’s 2040 Transportation Policy Plan, Appendix L identifies compatible land uses with aircraft noise zones. No areas within Baytown Township are located within Noise Exposure Zones 1-4. The table does not identify compatibility guidelines for the 55 DNL area.

**Land Use Compatibility Issues**

The Lake Elmo Airport 2035 LTCP identifies the existing land uses that are not considered to be compatible with the existing airport. The uses include the Union Pacific Railroad, County Road 15/Manning Avenue, and private properties near 30th Street in Lake Elmo.

The plan states that Washington County will need to address issues related to County Road 15/Manning Avenue in its future plans for the roadway. The Township has no zoning authority over the railroad. The zoning for the private properties near 30th Street in the Township will continue to permit large-lot single family residential uses only in this area, and no change in the existing land use are anticipated through 2040.

**Updated State Airport Noise Zoning Standards**

MnDOT’s Division of Aeronautics provides a summary of requirements for airport zoning related to noise. The areas of Baytown Township that are located within the airport’s zone of influence are located in Zone C. The current uses in the zone are restricted to those that do not cause interference with radio or electronic facilities and communities at the airport, or do not have lighting that impacts with airport operations. None of the uses that exist in
Township in Zone C or are permitted in Zone C by the 2040 Land Use plan have the potential to create the negative impacts identified. MnDOT noted that they are working on a process to update state zoning rules. None of the potential changes discussed would impact land use regulation in the Township through 2040.

F. RAILROADS

Two railroads pass through the Township. Both lines are owned by the Union Pacific Railroad. The first line passes along the southeastern corner of the Township in a north-south direction and serves Anderson Windows and the Allen S. King Plant in the City of Bayport. This line splits south of the Township and branches off to form the second line passing through the center of the Township going north to intersect at CSAH 14 and CSAH 24 then running in a southwesterly direction past CSAH 15 out of the Township. There are approximately 5.3 miles of track within the Township.

Land uses currently permitted along the railroad corridors include large-lot single-family uses, agricultural uses, and aggregate mining. The Township’s 2040 land use plan makes no change in the land uses permitted along the rail corridors.

G. RIVER USEAGE

Surface waters of the St. Croix River are used primarily for pleasure boating. Occasional barge traffic takes place on the St. Croix River, primarily for the purpose of providing coal to the Northern States Power plant in Bayport.
H. TRANSPORTATION GOALS AND POLICIES

Goals

1. Provide safe and efficient movement of persons and vehicles through and within Baytown Township without undue maintenance costs to the Township.

2. Work with other governments and organizations to accomplish multimodal local and regional transportation goals and manage transportation facilities in Baytown Township.

Policies

1. The Township will require new roads to meet the appropriate engineering standards (State, County, Township) and the requirements of the Township’s Subdivision Ordinance.

2. The Township will require new roads and road improvement projects to meet the performance standards of the MSCWMO and VBWD in their respective areas.

3. The Township will require driveway access spacing to meet County and local requirements.

4. The roadway network will provide for accessibility for services such as police and fire vehicles and school buses.

5. All newly constructed roads in major subdivisions will have a bituminous surface to reduce maintenance cost to the Township.

6. The Township will actively participate in planning for the Lake Elmo Airport to represent the interests of the residents of the Township.

7. The Township will manage land uses to be compatible with airport safety zones, noise regulations, and other state and federal regulations.

8. The Township will require projects approved to comply with the requirements regarding the notification to the Federal Aviation Administration (FAA) defined under code of federal regulations CFR-Part 77, using FAA Form 7460-1 “Notice of Proposed Construction or Alteration.”


10. The Township will participate in review and comment on any Environmental Assessments or Environmental Impact Statements that are undertaken as a result of the proposed roadway, airport or other transportation projects.
11. The Township encourages the location of a carpool/vanpool or park and ride lot next to state or county roads, particularly along State Highway 5 or County Road 15 (Manning Avenue), to encourage traffic concentration near the existing regional transportation network. The Township supports the location of a carpool/vanpool or park and ride lot within the Township.

12. The Township supports the development of regional bicycle trails, county bicycle and pedestrian trails, and linkages to existing local trails.
IX. Parks, Trails, and Open Space

A. PARKS, TRAILS AND OPEN SPACE

1. Parks

Baytown Township has a small park adjacent to the Community Center located at McDonald Drive and 40th Street developed by a neighbor association, Baytown Neighbors. The park is a passive park with no active play areas. There are no county or regional park facilities with the Township.

The existing Township park location is shown on Exhibit 22, at the end of this chapter. The Figure also shows permanent open space that was dedicated with cluster subdivisions and local historic sites.

Recognizing that many of its residents use the parks in the City of Bayport, Baytown shares some of its park dedication fees with the City—if Bayport provides water service to a new home or use, the city receives half of the required park dedication. The Township will continue to provide a portion of park dedication fees to those communities in which the Township’s residents utilize the park system. This practice will continue at the Town’s discretion and as deemed appropriate by the Township.

2. Trails

There are several trails that traverse the Township. Washington County has designated bike routes along the shoulders of County Road 67 and County Road 21. The Township has also constructed a shoulder along Northbrook Avenue for use as a bike trail. Cloverdale Farm also has dedicated tracts that connect to trails in other subdivisions in the area.

The Middle St. Croix Valley Regional Trail Search Corridor travels through the Township and adjacent communities. It will connect to the Browns Creek State Trail. Washington County will lead a planning process in the future to determine the alignment of the trail within the search corridor. A second regional trail corridor, called the Central Greenway, brushes the western edge of the Township.

The proposed trail corridors are shown on the map below, provided by the Metropolitan Council. The map indicates the location of the corridors in relationship to the DNR’s St. Croix Savanna Scientific and Natura Area (SNA) and the Bayport WMA.
At this time, there are no proposals for Township parkland acquisition or new local trails. However, the Township will encourage trail development and trail connections through the subdivision process, particularly if potential trails could connect to other local, county, or state trail systems. Further, the Township will support and participate in County or State planning efforts to create trail connections within the Township. The Township supports funding through grants, land or cash donations, or other funding opportunities which will assist in the development of regional, county, and local trail systems.

The Baytown Township Planning Commission and Board support the development of the Middle St. Croix Valley Regional Trail connection to the Brown's Creek State Trail. The Planning Commission and Board noted that existing and future trails should be linked to the regional and state trails system whenever possible.
3. **Open Space and Recreational Open Space**

The Township also has two state park and open space areas that provide outdoor recreation opportunities and natural resource conservation for the public and are considered part of the regional recreation open space system.

**Bayport Wildlife Management Area (WMA) - Minnesota DNR**

Bayport WMA is approximately 452 acres in size consisting of two main parcels, shown on the map above. One parcel is located in Baytown Township (198 acres) and the other parcel is located adjacent to the Township’s southern border within West Lakeland Township (south of 30th Street, adjacent to Stagecoach Trail). The major emphasis of this WMA is to manage for a variety of woodland and grassland wildlife. The area consists of 72% grassland/agricultural land, 27% woodland, and a small amount of wetland.

Much of the grassland on this area is planted prairie on previously agricultural land. The area was managed as a farm by the State Department of Corrections and was transferred to the Department of Natural Resources to be managed as a WMA in 1973.

Because Bayport WMA has fine shot restrictions, it offers archery deer hunting opportunities during the archery deer hunting season. This is a good area to go hiking and observe purple cone flowers and black-eyed susans in the planted prairie. Recreation opportunities include hunting, hiking, and wildlife viewing. Hunting options include: deer, small game, forest game birds, pheasant, waterfowl, and doves. Additionally, wildlife viewing options include: wetland wildlife, prairie wildlife, and forest wildlife.

**St. Croix Savanna Scientific and Natural Area - Minnesota DNR**

The St. Croix Savanna Scientific and Natural Area is 148 acres of land owned by the Minnesota Department of Natural Resources and located approximately 0.5 mile south of Bayport on Highway 95. The Minnesota Department of Natural Resources describes the area as the following:

“The St. Croix Savanna occurs along the top and side of a south-facing bluff, with views of the St. Croix River. Its slopes of loamy sand have eroded extensively, their soils now supporting an alluvial forest along the bottom. Scattered bur oak and pin oak on the open gravel prairie become increasingly dense toward the northeast and northwest, forming first an oak woodland and then an oak forest. Prescribed burning and removal of the exotic black locust has greatly enhanced the savanna. The dry savanna exhibits a significant diversity of grasses: hairy and side oats grama, needle and thread, prairie dropseed, and many others. Several species of goldenrod, sunflower, aster, and blazing star join the pasque flower, prairie gentian, coreopsis, flowering spurge, potentilla, fleabane, coneflowers, and hoary vervain in an ever-changing palette of prairie color. Rare kitten tails grow in the partial shade of bur oaks; other rare species found here include James’ polanisia, Illinois tick-trefoil, and a species of pinweed. The St. Croix Savanna is the best hill prairie and oak savanna along the Lower St. Croix National Scenic Riverway. Portions of the site are gifts of Ann McMannus and the estate of Hattie Miller.”
B. PARKS, TRAILS AND OPEN SPACE GOALS AND POLICIES

Goals

1. Encourage the development of regional parks, trails, open space, recreation and fish and wildlife areas that are consistent with the rural character of the Township.

2. Support the development of the Middle St. Croix Valley Regional Trail and regional and local trail connections to the trail corridor.

3. Protect and enhance fish and wildlife habitat and water recreational facilities in the Township for the short- and long-term.

Policies

1. The Township will identify opportunities to connect local trails to the regional trail system.

2. The Township will provide a portion of park dedication fees to those communities in which the Township’s residents utilize the park system, at its discretion and as deemed appropriate by the Township.

3. The Township will encourage preservation of open space and the preservation of ecologically sensitive areas, wildlife habitat, natural resources, open spaces, and natural and scenic views through subdivision approvals.

4. The Township will support and participate in County or State planning efforts to create trail connections within the Township.

5. The Township supports funding through grants, donations, or other funding opportunities which will assist in the development of regional, county, and local trail systems.
Exhibit 22:
Parks, Trail, Open Space and
Historic and Cultural Resources Map
X. Special Resources

A. SOLAR ACCESS PROTECTION

A 1978 amendment to the Metropolitan Land Planning Act requires all local governments in the Metropolitan Area to include "an element for protection and development of access to direct sunlight for solar energy systems" in their comprehensive plans.

There are two basic kinds of solar energy systems: passive and active. In a passive energy system, the building structure itself collects and stores solar energy at the point of use. In an active solar energy system, solar energy is collected at one location (for example a roof) and then transferred to the point of use or storage by mechanical power.

All solar energy systems, both passive and active, need to have direct sunlight fall on their collectors to function properly. Structures, trees or other objects that come between the sun and the solar collector will shade the collector and reduce its efficiency. Protecting solar access means the adjacent structures or vegetation are prevented from shading solar collectors (or the probable location of future collectors).

Solar access is protected in Baytown Township by the maximum structure height permitted in all land use districts (35 feet) and the required minimum setbacks for all structures. The Township’s zoning ordinance includes a state criteria for variances that variances may not be approved that would impact solar access for adjacent parcels or uses.

B. AGGREGATE RESOURCES

The Metropolitan Council requires that communities identify aggregate resources within local boundaries and plan for the extraction of aggregate prior to urbanization. Baytown Township does have areas of aggregate-rich land and there are two current extraction areas operating within the Township.

Bryon Rock Products, Inc. and Miller Excavating. Most aggregate resources are located on the east side of the Township and operate under Conditional Use Permits. Both mining areas will be planned for future residential development after mining is completed.

The 2040 Future Land Use map (Exhibit 9) shows the locations of aggregate resources in Baytown Township, outside the existing aggregate extraction areas. Most of these area have already been developed. The areas zoned for Agriculture will permit additional aggregate extraction prior to residential or urban development.

C. HISTORIC RESOURCES

Baytown has a long history of Township government and prides itself on maintaining the rural quality of life on which it was founded. One of the oldest townships in the State of Minnesota, the Township was organized in May 1858. Baytown will celebrate its 150 year anniversary in 2008, along with the State of Minnesota’s 150th anniversary.
The Washington County Planning Department conducted a county-wide historic sites survey in 1976. Baytown Township has two historic sites identified in this survey as follows:

- Residence (40th Street) - Important architecturally  
  (current Hannah House)

- Stillwater Junction – (Important transportation junction)  
  (Osgood Avenue/North of 40th Street)

Other non historic cultural resources of note to the Township include the following:

- Baytown Town Hall, built by the Baytown Neighbors neighborhood association in 2002,  
  is located at the corner of McDonald and 40th Street.

- According to the Washington County Historical Society, a waiting platform known as the  
  Oak Park Station was located where Stagecoach Trail crosses the railroad.

- Pioneer Cemetery, located in Baytown Township is a small family cemetery located on  
  private property where members of the Fiske and Mitchell families were buried. Dates of  
  burials range from 1852 to 1882. Additional information is located in the Appendix.

The historic resources in the Township are not on the National Register of Historic Places and do not have an official historic status. The Township supports private efforts and the efforts of the Washington County Historical Society to preserve these historic resources.

D. GOALS AND POLICIES FOR SPECIAL RESOURCES

Solar Energy Resources

Goal

1. Assure adequate solar access for Township residents and regulate alternative energy  
   sources.

Policy

1. All new subdivisions and planned unit developments will be designed to  
   accommodate use of passive and active solar energy systems with special  
   attention given to street, lot and building orientation through implementation of  
   local zoning ordinance dimensional requirements.
Aggregate Resources

Goals

b. Protect the Township's aggregate resources and provide for reasonable economic use of aggregate and extraction.

c. Regulate any active mining operations in order to minimize undesirable effects on the environment and ensure that an acceptable reclamation plan for the land is being implemented.

Policies

- Manage aggregate resources to provide for the extraction of high quality aggregate prior to nonagricultural development on the site.

- Ensure that the development of aggregate resources limits adverse environmental impacts and impacts on adjacent land uses as practically as possible.

- Require adequate buffering, landscaping, and end use plans.

- Ensure the reclamation of mining sites in a manner compatible with the surrounding land uses, natural conditions, and public safety.

- Adopt regulations to minimize nuisances from aggregate extraction that affect developed areas and that ensure restoration of extraction sites to protect other natural resources and natural functions.

- Encourage the preservation and retention of identified historic sites, including structures that contribute to the rural character of the Township.

Historic Resources

Goals

1. The Township will encourage private owners and organizations to restore historically significant buildings.

2. The Township will encourage the preservation and/or rehabilitation of structures that contribute to the rural character of the Township, including barns, silos, etc.
XI. Implementation

Implementation of the Comprehensive Plan is an ongoing process and occurs as the Township reviews development proposals and other projects. The Township may also need to review and amend the plan as conditions change during the next 20 years.

The Plan represents a commitment to a set of goals and policies that will guide the future of the Township. It is the result of careful study of the Township’s physical, economic and social elements, discussion with the community and other organizations, and integration of Baytown’s plans for the future into a unified vision, goals, and policies. The Township is committed to implementing the Plan and achieving the goals and policies identified in this Comprehensive Plan.

Knowledge of the Plan and understanding of its importance and benefits, and a commitment to fulfilling the Plan are the key components in successful implementation. The major stakeholders in this activity include the Town Board and Planning Commission, other local, regional, and state agencies, citizens, developers, and businesses.

A. OFFICIAL CONTROLS

The Township adopted a Zoning Ordinance and Subdivision Ordinance in 2016 that implement the Comprehensive Plan. Washington County has recently adopted an ordinance granting the Township sole authority for Zoning and Subdivision in areas outside the St. Croix River District, Shoreland Areas, Floodplains, and Mining activities. The Township’s Ordinances are tools for Baytown to use to maintain the community character, manage growth, restrain competitive land uses, and protect natural resources.

The Township will review its ordinance and update them as needed to be consistent with the 2040 Comprehensive Plan within 9 months of the adoption of this plan.

The Township will also update its zoning map to be consistent with the 2040 Comprehensive Plan.

B. CAPITAL IMPROVEMENTS PLAN

The Capital Improvements Plan (CIP) is the financial planning mechanism used by communities to plan for long-term major expenditures. A capital improvement is any major non-recurring expenditure or any expenditure for physical facilities of government, such as costs for acquisition of land, construction of buildings or other structures, including additions or major alterations, construction of highways, utility lines, fixed equipment and similar expenses.

Baytown Township’s Capital Improvements include roadway projects to maintain and improve Township roads.

The Township completed a comprehensive road inventory in 2015-2016. The Township has created a long-term pavement management plan to address the needs for roadway improvements on a priority basis.
C. COMPREHENSIVE PLAN AMENDMENTS

Changes to the Township’s land use and zoning maps may be proposed during the next 10 years and may require Comprehensive Plan Amendments. Amendments to the Comprehensive Plan can be initiated by citizens, developers, the Township, or others.

Changes to the Plan are made through an amendment process that includes a public hearing and analysis of impacts on adjacent areas and the Township. All Comprehensive Plan Amendments must also be approved by the Metropolitan Council and may then result in approval of changes to the Township’s Zoning Ordinance and Map.
APPENDICES