CITY OF BEAVERTON
MASTER PLAN

Final Draft
September 1987

Prepared by:
BEAVERTON CITY PLANNING COMMISSION

With assistance from:
EAST CENTRAL MICHIGAN PLANNING AND DEVELOPMENT REGION
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Definition of term

Artesian well - A drilled well in which water is forced up by internal hydrostatic pressure.

Certified Industrial Park - Classification given to industrial parks by the Michigan Industrial Development Association (MIDA) and the Michigan Dept. of Commerce in accordance with pre-determined standards which address such things as; condition of roads and utilities, amount of acreage available, etc.

Contour map - Shows elevations and surface configurations by means of contour lines. The contour lines join points of equal elevation, displaying hills, ridges, etc.

Fire insurance classification - Rating on a scale from 1-10. This rating is assigned to a jurisdiction on the basis of ability to prevent potential property damage. In case of fire "1" is the best rating with least amount of risk while "10" indicates a high amount of risk.

Floodplain - Nearly level land consisting of stream sediment that borders a stream and is subject to flooding.

Glacial outwash - Cross-bedded gravel, sand and silt deposited by meltwater as it flowed from glacial ice.

Glacial till - Unsorted, non-stratified glacial drift consisting of clay, silt, sand, and boulders transported and deposited by glacial ice.

Groundwater - Water beneath the earth's surface located between soil and rock that supplies wells and springs.

Keyhole development - Several parcels of land adjacent to a body of water sharing a common access point, while no one parcel has actual lakefront, or riverfront property.

Permeability - The quality of a soil that allows water or air to move through it. Terms to describe permeability are as follows: very slow, slow, moderately slow, moderate, moderately rapid, rapid and very rapid.

Planning commission - A body appointed by City Council consisting of not less than 5 and not more than 11 members who represent various segments of a jurisdiction's population. (i.e. economic, governmental and social) This body is authorized and empowered to make, adopt, amend, extend, add to, or carry out the Master Plan.

Runoff - The part of precipitation upon a drainage area that is discharged from the area in stream channels. The water that flows off the land surface without seeping in the soil is called surface runoff.

Watershed - A region of land that drains into a particular water body.
I. OVERVIEW

A. Introduction and Purpose

Community planning is a goal oriented, continuous process which seeks to create a better environment. As such, a master plan is a "tool" by which this goal can be reached. More specifically, a master plan is the official statement of a community which sets forth its major policies concerning desirable future development. It is intended to be used as a guide by both public officials and private individuals to make decisions which promote the common good of the community.

The overall goal of this project is to prepare a sound, up-to-date master plan for the City of Beaverton to serve as a guide for the orderly development of the community. To accomplish this goal, the plan should possess several important characteristics:

1. The plan must be consistent with the Municipal Planning Act, Act 285 of 1931, as amended. The Act states that a master plan "shall be made with the general purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the municipality and its environs ..."

2. The plan should be current in addressing issues and priorities.

3. The plan should be long-range, addressing community issues in the perspective of 15 to 20 years.

4. The plan should be policy oriented so that it serves as a useful guide to decision making.

5. The plan should be flexible so that it anticipates change, and should be reviewed and revised as needed on a regular basis (i.e. five year intervals).

6. The plan should provide a sound basis for land use regulations, especially zoning.
development by the Planning Commission, City Council, the public, and others.

8. The plan should exert a positive influence on the community's development and provide a means of coordinating the many diverse elements influencing the City.

9. The plan should be realistic so that it can be implemented, and it should address short-term actions as well as long-range considerations.

In addition to those objectives, the City has expressed a desire to go a step beyond the preparation of a basic master plan to also develop a detailed community recreation element. The recreation plan is intended to provide a basis for improving recreation facilities in an effective, efficient, and responsive manner. Some of the more specific purposes of the recreation planning element are as follows:

1. Examine the overall needs of Beaverton residents for recreation and compare those needs to the facilities and programs available.

2. Examine potential recreation improvements in a long-range context so that current and future public expenditures are made in a logical fashion.

3. Provide a rational basis for establishing priorities for needed or desired improvements.

4. Establish priorities so that budget needs can be outlined for the next several years and appropriate financial commitments can be made.

5. Establish the community's eligibility for financial assistance available through the Federal Land and Water Conservation Fund and Michigan Natural Resources Trust Fund programs.

B. Regional Setting

The City of Beaverton (Map I-1 pg. 3) is located in southwestern Clay Township County, near the center of Michigan's Lower Peninsula. In general, the county
is a rural area with extensive areas of forests and farmlands. The eastern part of Gladwin County primarily consists of public forest lands with residential concentrations around three recreational lakes, Second, Smallwood, and Mixon. The western half of the county is comprised of agricultural lands. Beaverton is situated near the center of this agricultural area.

In relation to larger cities, Beaverton is roughly 25 miles from Midland, 50 miles from Saginaw, 90 miles from Lansing, 95 miles from Grand Rapids, and 150 miles from Detroit. Gladwin, the county seat, is seven miles north of Beaverton.

Major highway access to Beaverton is provided by M-18, running north and south through the center of the City. M-18 provides, in turn, access to the east-west routes of M-61 in the northern part of the county and the US-10 expressway to the south.

Another major feature that influences Beaverton's development patterns is Ross Lake. The City has grown around the lake, with industrial and recreational areas on the north side and residential concentrations on the south side. These existing land use and development patterns will be addressed in more detail in subsequent sections of this report.

C. Administrative Structure

The City of Beaverton has a Mayor-Council form of government, the Mayor being the highest elected city official with a six member elected Council governing the City. The Council guides operations of the City department heads. The City Clerk, an elected office, maintains an accurate records system and is responsible for the payment of City bills. The City Treasurer, also an elected office, receives tax payments and is responsible for all City monies. The other department heads are: Assessor, responsible for the tax roll;
CITY OF BEAVERTON

ORGANIZATIONAL CHART

MAYOR- HIGHEST ELECTED OFFICIAL, PRESIDES OVER COUNCIL

COUNCIL- 6 ELECTED MEMBERS, GOVERNS CITY BUSINESS

CITY CLERK- KEEPS CITY RECORDS, PAYS CITY BILLS

ASSESSOR

POLICE CHIEF

WATER DEPT.

DPW SUPER.

SERGEANT

FOUKEEPR

ASSISTANT

POLICE OFFICERS

WATER BILLING

DPW OPERATIONS

RECORDS

BOOKKEEPER

CREW LEADER

CREW

KEEPS CITY TREASURER RECORDS, PAYS CITY BILLS, SUPERVISES DEPT. HEADS AND CITY MONIES

TOUGHERS AND CITY MONIES
Police Chief, responsible for law enforcement and those officers under him; Water
Department, responsible for water billing statements and records; Dept. of
Public Works Superintendent, responsible for City operations and maintenance and
those men under him; and the Bookkeeper, responsible for maintaining an accurate
clerical records system under the City Clerk (See Organizational Chart, Figure
1-1). In addition, the City has a 10 member planning commission and other
various standing committees. City Hall is located at 125 West Brown Street.
City Council meetings are held the first and third Monday of the month.

D. Area History

Adoption of the "Ordinance of 1781" marked the beginning of the history of
the Michigan Territory. The Revolutionary War concluded, England had yielded
what was to be Michigan to the United States and in 1787 it formally became a
part of the Northwest Territory. In the early days of the Northwest Territory
most of these lands were inhabited by the Chippewa and Sauk Indians under the
Treaty of Detroit in 1787. What is now Michigan was roughly surveyed by the
United States. In this survey the lands of Gladwin were included with "Midland
Territory," marked as "Region of the Saginaws."

Originally, a Treaty set aside the "Region of the Saginaws" for joint use
by the Chippewa, Pottawatomi, Wyandotte and Ottawa Nations of Indians. Later,
under the "Treaty of Saginaw," dated 1819, all lands in this region known as the
"Region of the Saginaws" were ceded to the United States Government by the
Indian Nations. Two Chippewa reservations were excepted, however, and so
remained until January 14, 1837. At that time a treaty was made between the
United States and the Chippewa Nation, under terms of which the Chippewas ceded
both 1819 reservations back to the government. A provision was made that
proceeds from the sale of these lands go to the Indians. When this treaty had
been signed, all of present day Midland County along with parts of Roscommon,
all of Clare, part of Gladwin, Isabella, Bay, Saginaw, Gratiot, and Arenac Counties were the Territory of Midland.

The County of Gladwin was organized in the year of 1875. The name, Gladwin, commemorates Major Henry Gladwin, British Commandant at Detroit, who saved it against repeated Indian assaults during Pontiac’s uprising in the years 1863-64. (Gladwin County Economic Development Plan, 1971)

The City of Gladwin is the county seat. The City of Beaverton has the second highest concentration of population in the County, and covers approximately one square mile.

Beaverton was established in 1903 and had it’s first election that same year. The area now known as Beaverton was once called Three Forks because of the three forks of the Tobacco River that meet in town.

In the fall of 1899 Donald Ross his two sons Ronald and Donald, and their Aunt Ellen Fraser came from Beaverton, Canada and settled in the Three Forks area. Soon after, Three Forks was renamed Beaverton. Among the first families to settle in Beaverton were the Scotts, Hunters, Dowes, Rackels, Walkers, and the Beards.

The Ross Sawmill was situated where the Cedar and Tobacco Rivers met. This area was a good landing point for logs that the Ross family used in their sawmill and cedar shingle production operations. Many logs traveled past Beaverton into the Tittabawassee and down to the Saginaw River. The Pere Marquette Railroad was completed to Beaverton in 1890 and made two stops per day in the City. At about this same time, Mr. Donald Ross, constructed a dam where the Cedar and Tobacco Rivers met, creating Ross Lake. He later sold the dam to Consumer’s Power who in turn sold it to the City.

Between 1909 and 1940, Beaverton suffered several disasters. In 1909 there was a fire started in the saloon and spread to the Ross General Store,
where dynamite was stored. The resulting explosion and fire damaged several 
surrounding buildings and broke stained glass windows in area churches. The 
local hotel also burned in 1909. There were also recorded accounts of forest 
fires that would burn for days, destroying farm homes and timber. In 1912 
Beaverton experienced major flooding. In 1940 William Hall and Son's a 
hardware and opera house burned, destroying one of Beaverton's oldest 
buildings. (Historic information provided by Beaverton Library).
II. PHYSICAL AND SOCIAL FEATURES

A. Population Characteristics

Historical population data for Beaverton are shown in Table II-1, pg. 11. The trends show that the City has experienced slow, steady growth over the years. This has resulted in an overall increase in population of 71 percent during 1960-1985. The City experienced its greatest growth during 1940-1960, when the population expanded at more than twice the overall county growth rate. Since that time, the City's growth has been more moderate, and slower in comparison to the surrounding townships (see Figure II-1, pg. 10). The population growth of Beaverton and the surrounding area is shown in Table II-2, pg. 11.

This trend is commonly seen in rural areas with agriculture as their principal economic activity. Considered in terms of the trends for the expansion of the larger cities and the general urbanization of the United States through the 1960's there has been little opportunity for major growth in smaller communities like Beaverton.

In 1970-1980, the trend toward rapid urban growth was reversed. Former city dwellers moved into more attractive rural areas offered by places such as Gladwin County. This trend explains the more rapid growth of Beaverton and Tobacco Townships, which surround the City (see map II-2, pg. 12).

The City of Beaverton has sustained a moderate population increase of about seven percent during 1980-1985. This growth rate has still been slightly less than the overall growth of the county and the surrounding townships. In the future, growth is expected to continue to shift into rural areas like the townships surrounding Beaverton.
HISTORICAL & PROJECTED POPULATION of BEAVERTON

*data supplied is a projection

FIG. IX-1
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Beaverton City</td>
<td>641</td>
<td>794</td>
<td>926</td>
<td>954</td>
<td>1,025</td>
<td>1,094</td>
</tr>
<tr>
<td>Beaverton Township</td>
<td>623</td>
<td>658</td>
<td>700</td>
<td>1,033</td>
<td>1,642</td>
<td>1,823</td>
</tr>
<tr>
<td>Tobacco Township</td>
<td>772</td>
<td>773</td>
<td>996</td>
<td>1,439</td>
<td>1,966</td>
<td>2,203</td>
</tr>
<tr>
<td>Gladwin County</td>
<td>9,385</td>
<td>9,451</td>
<td>10,769</td>
<td>13,471</td>
<td>19,957</td>
<td>22,099</td>
</tr>
</tbody>
</table>

Source: Historical data 1940-1980 from U.S. Census. 1985 estimates by ECFPRD and Michigan Department of Management and Budget.

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<tr>
<td>Beaverton City</td>
<td>49%</td>
<td>7%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Beaverton Township</td>
<td>66%</td>
<td>56%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Tobacco Township</td>
<td>86%</td>
<td>37%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Gladwin County</td>
<td>44%</td>
<td>48%</td>
<td>11%</td>
<td></td>
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</tbody>
</table>
More detailed population characteristics are shown in Table I1-3, pg. 14. This data indicates that Beaverton has a larger proportion of school-age and younger children in comparison to the state, county, and surrounding townships. The City also has more residents 65 years and older when compared to the surrounding area and the state. Overall, City residents are a bit younger than the county average, and women make up a greater percentage of the City population, with a median age of 28.9 years vs. a median county age of 33.1 years.

The data in Table I1-3, pg. 14 also show that City income levels are somewhat lower than the surrounding area and the state figures. Beaverton’s median household income was $12,574 per year while the States median household income was $19,223. These income levels are, however, very close to the Gladwin County median household income which was $12,255 per year in 1980.

B. Housing

An adequate and structurally sound housing stock is essential to a growing community. Housing data for the City of Beaverton is summarized in Table I1-4, pg. 15. This information shows that the housing stock increased by about 30 percent (over 100 units) during 1970-80.

The median housing value of $25,000 is a bit low in comparison to the Gladwin County average. This tends to be the case in more mature cities which typically have a larger percentage of older housing stock. The housing values within the City follow a fairly narrow range. About 14 percent of the units are valued below $20,000 and only four percent exceed $50,000. Thus, the median figure provides a good representation of typical housing value. The data also show that most homes (about 70 percent) in the City are owner-occupied. The housing stock is generally in good condition with 27
### Table II-3
Social Characteristics in 1980

<table>
<thead>
<tr>
<th>Age and Sex, %</th>
<th>Michigan</th>
<th>Gladwin Co.</th>
<th>Beaverton City</th>
<th>Beaverton Twp.</th>
<th>Tobacco Twp.</th>
</tr>
</thead>
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<tr>
<td>Under 5</td>
<td>7.4</td>
<td>7.2</td>
<td>9.7</td>
<td>7.7</td>
<td>7.5</td>
</tr>
<tr>
<td>18 yrs. &amp; older</td>
<td>70.3</td>
<td>70.5</td>
<td>69.4</td>
<td>65.1</td>
<td>70.4</td>
</tr>
<tr>
<td>65 yrs. &amp; older</td>
<td>9.8</td>
<td>14.3</td>
<td>12.8</td>
<td>7.3</td>
<td>11.6</td>
</tr>
<tr>
<td>Median age</td>
<td>28.8 yrs.</td>
<td>33.1</td>
<td>28.9</td>
<td>28.2</td>
<td>33.0</td>
</tr>
<tr>
<td>FEMALES</td>
<td>51.2</td>
<td>50.5</td>
<td>54.2</td>
<td>47.0</td>
<td>49.7</td>
</tr>
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<table>
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<tr>
<th>Race</th>
<th>Gladwin Co.</th>
<th>Beaverton City</th>
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<tbody>
<tr>
<td>White</td>
<td>19,812</td>
<td>1,021</td>
</tr>
<tr>
<td>Non-white</td>
<td>126</td>
<td>3</td>
</tr>
<tr>
<td>Spanish origin*</td>
<td>117</td>
<td>8</td>
</tr>
</tbody>
</table>

* recorded as white

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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Median Household</td>
<td>$ 19,224</td>
<td>$ 12,255</td>
<td>$ 17,574</td>
<td>$ 15,000</td>
<td>$ 15,959</td>
</tr>
<tr>
<td>Median Family</td>
<td>22,108</td>
<td>14,678</td>
<td>14,129</td>
<td>18,059</td>
<td>18,045</td>
</tr>
</tbody>
</table>

**Source:** Bureau of the Census, 1980 Census.
<table>
<thead>
<tr>
<th></th>
<th>Housing Units</th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1970</td>
<td>1980</td>
<td>Increase</td>
<td>Median Value</td>
<td></td>
</tr>
<tr>
<td>Michigan</td>
<td>8,855</td>
<td>13,509</td>
<td>52.6%</td>
<td>$ 29,900</td>
<td></td>
</tr>
<tr>
<td>Beaverton City</td>
<td>358</td>
<td>465</td>
<td>29.9%</td>
<td>$ 25,800</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Owner</th>
<th>Renter</th>
<th>Median Rent</th>
<th>Persons/Household</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michigan</td>
<td>---</td>
<td>---</td>
<td>$197</td>
<td>2.8</td>
</tr>
<tr>
<td>Gladwin Co.</td>
<td>6,089</td>
<td>1,070</td>
<td>147</td>
<td>2.8</td>
</tr>
<tr>
<td>Beaverton City</td>
<td>279</td>
<td>121</td>
<td>159</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Other Occupied Unit Characteristics

Beaverton City

<table>
<thead>
<tr>
<th></th>
<th>Number of Units</th>
<th>% of Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lacking Complete Plumbing</td>
<td>6</td>
<td>1.3%</td>
</tr>
<tr>
<td>Overcrowding (more than a person per room)</td>
<td>13</td>
<td>2.8%</td>
</tr>
<tr>
<td>Houses less than $20,000 value</td>
<td>64</td>
<td>13.8%</td>
</tr>
<tr>
<td>Houses $20,000 or more value</td>
<td>17</td>
<td>3.7%</td>
</tr>
<tr>
<td>Built 1939 or earlier</td>
<td>125</td>
<td>27.0%</td>
</tr>
<tr>
<td>Built 1970-1980</td>
<td>124</td>
<td>26.8%</td>
</tr>
</tbody>
</table>
percent of the existing units built before 1939. Units lacking complete plumbing or experiencing overcrowding are quite scarce.

A land use survey conducted March, 1987 noted there were 75 mobile homes in Beaverton. Of these, 56 were located in Lakeview Mobile Home Park on West Brown Street. The remaining 19 are scattered throughout the city on residential lots. There are five apartment complexes in Beaverton offering 60 living units. Multi family units in Beaverton primarily serve senior citizens. In addition to the mobile homes, there are 257 single family units in Beaverton.

C. Local Economy

The major employers in the Beaverton area are primarily in the manufacturing and retail trade categories. The single largest employer in Gladwin County, Brown Machine, is located in Beaverton. Major local employers are listed in Table II-5, pg. 17. In addition to these employment opportunities in the immediate area, City residents also commute to work in the urban areas of Midland and Saginaw, while others are employed in the closer communities of Clare and Mt. Pleasant.

Recent data provided by the Michigan Employment Security Commission places the total labor force at 520 persons for 1985. The Beaverton unemployment rate has been estimated at 7.7 percent, substantially lower than the overall Gladwin County rate of 11.3 percent.

D. Land Use

Map II-2, pg. 19 presents specific land uses in Beaverton as of March, 1987. The primary consumer of land in Beaverton, as with most communities, are residential uses. There are several open lots within residential areas in the City. Single family residential lots in Beaverton have an average
<table>
<thead>
<tr>
<th>Employer</th>
<th>Product/Service</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown Machine</td>
<td>Thermoforming machinery</td>
<td>300</td>
</tr>
<tr>
<td>Robinson Industry</td>
<td>Foam products</td>
<td>100</td>
</tr>
<tr>
<td>Alma Plastic/Kal Plant</td>
<td>Plastic sheeting</td>
<td>52</td>
</tr>
<tr>
<td>Lyle Development, Inc.</td>
<td>Vacuum equipment</td>
<td>35</td>
</tr>
<tr>
<td>Lyle Development Corp.</td>
<td>Plastic trimming equip.</td>
<td>19</td>
</tr>
<tr>
<td>Modern Machine</td>
<td>Plastic mfg. machinery</td>
<td>11</td>
</tr>
<tr>
<td>Patter Products</td>
<td>Medical aids</td>
<td>12</td>
</tr>
<tr>
<td>Homestead Tool</td>
<td>Tool and die</td>
<td>10</td>
</tr>
<tr>
<td>Howe Racing, Inc.</td>
<td>Racing equipment</td>
<td>7</td>
</tr>
<tr>
<td>Luer Silicone</td>
<td>Silicone products</td>
<td>5</td>
</tr>
<tr>
<td>Beaverton Security Septic</td>
<td>Septic tanks</td>
<td>6</td>
</tr>
<tr>
<td>Loose Plastics</td>
<td>Plastic pellets</td>
<td>3</td>
</tr>
<tr>
<td>Perry's IGA</td>
<td>Grocery store</td>
<td>20</td>
</tr>
<tr>
<td>D &amp; C Store</td>
<td>Variety store</td>
<td>10</td>
</tr>
<tr>
<td>Beaverton Hydro Plant</td>
<td>Electric generating plant</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: Michigan Department of Commerce, Office of Community Development.
Updated by City of Beaverton and HONFORD, June 1986.
frontage of 10' in R-1 (low density) and 66' in R-2.

Beaverton has a well defined commercial area in the downtown and along Highway 18. Industrial development is also in well defined areas, and does not appear to interfere with residential or commercial uses.
III. ENVIRONMENTAL CONSIDERATIONS

A. Overview

Attractiveness and quality of the natural environment affects several aspects of community living, some of which are public health, quality of life, recreational development and economic development. Natural amenities like topography, vegetation, wildlife, geologic formations, ground water and surface water, are elements of the environment that need consideration before development of any type occurs.

B. Topography

The land features and soil conditions of the Beaverton area are a direct result of glacial activity. Beaverton rests primarily on outwash plains, an ancient lake bed (see map III-1, pg. 21 for general glacial surface formations). Bedrock, or the rock formation that lies under glacial deposits in Gladwin County, is from the Pennsylvanian age. The Pennsylvanian system of rocks extends across the central portion of the lower peninsula and contains the only workable coal beds found within the state. The portion of this system which lies below Beaverton is called the Grand River formation and consists primarily of sandstone. (Gladwin County Solid Waste Plan, 1982 ECPD). See map III-2, pg. 22 for bedrock formations.

Elevations in the County range from 1000 feet above sea level (in the northwest corner) to 600 feet above sea level (in the southwest corner). Beaverton sits at about 700 feet above sea level, (see map III-3, pg. 23, for specific contour lines). The character of Beaverton's topography is nearly level to gently rolling. The dominant slope ranges from 1 percent to 3 percent. River basin areas are deep and represent the most variation of elevation in the area. This characteristic of deep river basins is what made the creation of Ross Lake possible.
GLACIAL SURFACE FORMATIONS

LEGEND:

- Moraine
- Water Laid Moraine
- Ground Moraine
- Outwash
- Lake Bed, Clay
- Lake Bed, Sand
- Ponded Water

III-1
C. Soils

Soil conditions are of significance because they dictate limitations of specific land uses on a particular site. The soils that underlay Beaverton are generally poorly drained or very poorly drained, although there are some sandy loam areas that are well drained. Soils in the area were deposited by glacial meltwaters and contain a relatively high amount of silt and clay. Limitations of most soils in Beaverton are moderate to severe. Map III-4, p. 25 shows various soils of Beaverton. Following is a brief description of soil types found in Beaverton, as presented by Gladwin County Soil Survey, 1972.

1. A1B - Allendale Sand, 0 to 5 percent slopes. The Allendale series consists of somewhat poorly drained, undulating soils on lake plains. This soil occurs primarily in outwash plains and deltas and is mainly level to gently sloping. The series has rapid permeability in the upper layers and very slow permeability in lower layers. Runoff is slow.

2. Ara - Au Gres sand, 0 to 2 percent slopes. The Au Gres series is also somewhat poorly drained and nearly level. Au Gres sand usually be found in knolls that formed as a result of windthrow trees.

3. B4B - Bowers silt loam, 0 to 4 percent slope. Level to gently rolling, somewhat poorly drained soils (silty clay, clay loam and silt) that occur on lake plains. Permeability moderately slow, runoff is slow. In addition, these soils dry out slowly in the spring or after prolonged rain. Because of the position of these soils, they tend to receive runoff from adjacent areas.

4. Co - Cohoctah loam. This series consists of nearly level to depressional soils that are very poorly drained and occur in floodplains of streams and rivers. Runoff is very slow, permeability is moderate and the
soil is frequently flooded.

5. Ew - Ewart-Winterfield association. Like the Cohoctah loam, this series is nearly level, depressional, very poorly drained and occurs in floodplains. Runoff is slow and permeability is rapid.

6. IoA - Isosco loamy sand, 0 to 2 percent slopes; and IoB - Isosco loamy sand, 2 to 6 percent slopes. This series consists of nearly level to undulating or gently sloping soils that are somewhat poorly drained and occur on lake plains or till plains. Runoff is very slow to slow. Permeability is rapid in the upper parts of the soil, and is moderately slow in the lower parts.

7. MaB - Menominee loamy sand, 2 to 6 percent slopes. Soils occur on till plains and moraines, are nearly level to strongly sloping and well drained to moderately well drained. Moisture capacity of this soil is low, making it more susceptible to wind erosion.

8. Fa - Farkhill loam occurs primarily around knolls and ridges in level areas and depressions on the lake bed plain. The soil is very poorly drained, runoff is very slow to ponded. Most of this soil in the county is drained and used for agricultural production.

9. RbB - Rubicon sand, 0 to 6 percent slopes. This well-drained, sandy soil occurs in outwash plains, lake plains, moraines, ridges and hillslopes. It is nearly level and gently sloping. Runoff is slow to medium, permeability is very rapid. This soil is subject to blowing.

Note: For Beaverton, those soils without a slope indicated, are nearly level.

D. Climate

Beaverton experiences a continental climate that is modified by the effects of the Great Lakes. Winds that cross Lake Huron from the west and
Lake Michigan from the east make Gladwin county somewhat warmer in the winter and cooler in the summer than areas at the same latitude in the western part of the State. Because of the cool temperatures, high humidity, and the relatively high percentage of cloudy and partly cloudy days, along with the well-distributed rainfall, the area has less severe and less frequent droughty periods than states to the south and west. (Gladwin County Soil Survey, U.S.D.A. 1972.)

The warmest month of the year in Beaverton is July, with an average maximum temperature of 78.8 degrees Fahrenheit and an average minimum temperature of 53.6 degrees Fahrenheit. The coldest temperatures occur in January and range from an average maximum of 25.8 degrees F to an average minimum of 9 degrees F. Average annual precipitation is 38.39 inches. Average annual snowfall is 46.6 inches. Growing season for the area is 125 days. (Office of Community Development, Michigan Dept. of Commerce, 1988). In short, the climate of Beaverton has a wet spring season, followed by a hot and humid summer. Autumn is typified by brisk winds that lead to fairly harsh winter conditions of constant snow cover until around Mid-March, (Beaverton Recreation Plan, 1980).

E. Surface Water

There is a well defined system of rivers and streams draining from the northwest into Beaverton. Four river branches converge in Beaverton (north, middle and south branches of the Tabacco River and the Cedar River) to form Ross Lake, which represents 294 acres of surface water. (Outdoor Recreational Development for Gladwin County, 1970). Ross Lake is the result of a power generating dam. Beaverton lies within the Tittabawassee River basin, which encompasses the entire county. See map III-5, pg. 28 for surface water in the area.
F. Groundwater

As mentioned earlier, lake bed deposits in the area are prominent. Water-bearing strata in these glacial deposits generally produce 10-100 gallons per minute with a 6 inch or more diameter well (Cladwin County Solid Waste Plan, 1982). This glacial strata supplies the City with its water. Artesian conditions exist north of the Tobacco River basin, resulting in numerous flowing wells north of the city at about 150' in depth. South of the river water veins lie about 90' below the surface, but artesian conditions do not exist in this area, (Beaverton Recreaton Plan, 1980).

Groundwater is easily obtained in the area, but Beaverton is not over a primary zone for groundwater recharge (see map III-6, pg. 30 for surface recharge zones).

G. Wetlands and Floodplains

Wetlands can take many forms. They can range from meadows that do not have standing water during the growing season, but are waterlogged to within a few inches above the surface, to wooded swamps or bogs. Seasonally flooded basins or flats (floodplains) are often wetlands. Biologically, wetlands are among the most diverse and productive lands available for wildlife (Smith, 1980). Aside of having wildlife values, wetlands act as buffer zones for runoff, are often groundwater recharge areas, and headwaters of streams and rivers. Wetlands are highly sensitive areas that once destroyed, can not be replaced. There are not appear to be significant wetlands in the city limits, according to the U.S. Geologic Survey (see map III-3, pg. 23 for wetland areas). Many wetland areas lie outside Beaverton, those wetlands bear consideration by the City in that: 1) land use in the city may affect these wetlands, and 2) if future annexations are to occur, the city will need to understand potential development limitations of the land to be annexed.
MAP OF SURFACE RECHARGE ZONES

LEGEND:

Primary zones of recharge, surface deposits consist largely of permeable sand and gravel, moraine outwash deposits.

Minor zones of recharge, surface deposits consist largely of impermeable, interbedded clays and sands of lake bed deposits.

Floodplains are areas immediately adjacent to a waterway which accommodate floodwaters when the stream or river exceeds its channel. The floodplain (also known as the riparian zone) serves as a buffer area or greenbelt between development and the river or stream’s natural processes. Because the riparian zone offers a diverse range of wildlife and vegetation in a relatively small area, it is an excellent area for recreational uses, (Odum, 1978).

In precipitation data presented by the U.S. Geologic Service for September 1986, Beaverton recorded 14.29 inches of rainfall, yet did not record even a 50-year flood, while many areas in the State recorded 50 and 500 year floods. Apparently, because of the dam at Beaverton, and the fact that river basins in the area are relatively steep, flood surges remained controlled in the Beaverton area.

Wetlands and floodplains need particular consideration because of their unique character. Not only should development be restricted in these areas, impacts of adjacent land uses should be considered when development occurs.

II. Vegetative Cover

From a regional perspective, forest lands in Gladwin County, as with the majority of forested areas in the State, are second growth forests that have emerged since lumbering and fires devastated native forests. There has been significant recovery with second growth forests which are now offering a variety of amenities such as timber, wildlife habitat and recreation.

According to estimates presented in the Industrial Site Inventory of Gladwin County, 186,900 acres, or 50.0 percent of the land in the county is forested. The majority of that land is state, federal or county land, and although they lie outside the boundaries of Beaverton, they have impact on Beaverton (map III-7, pg. 32 presents public lands in the county).
Agriculture uses represent 91,491 acres in the county, or 28.4 percent of
the land. Soils association maps indicate that soils in the Beaverton area
are generally fair agricultural land in need of drainage, (Gladwin Economic
Development Plan, 1971).

The majority of vegetative cover in undeveloped areas in Beaverton is
open field, with scattered woodlots throughout the City. Another large
occupier of the city's area is surface water.

I. Wildlife

Wildlife plays an important role in the quality of life in a community,
especially in areas interested in recreational development. Food, cover and
water are essential elements of wildlife habitat which must be available to
maintain species population and diversity, (Gladwin County Recreation Plan,
1970). The type of habitat in an area dictates the species that will be
present there, for example:

<table>
<thead>
<tr>
<th>Openland Areas</th>
<th>Woodland Areas</th>
<th>Wetland Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>pheasants</td>
<td>deer</td>
<td>ducks</td>
</tr>
<tr>
<td>quail</td>
<td>gray squirrel</td>
<td>geese</td>
</tr>
<tr>
<td>fox</td>
<td>black squirrel</td>
<td>muskrat</td>
</tr>
<tr>
<td>rabbit</td>
<td>raccoon</td>
<td>beaver</td>
</tr>
<tr>
<td>woodchuck</td>
<td>owls</td>
<td>mink</td>
</tr>
<tr>
<td>songbirds</td>
<td>turkey</td>
<td>cranes</td>
</tr>
</tbody>
</table>

It is interesting to note that during a land use field check several
species of diving ducks were observed in Ross Lake along with geese, and
herons. The majority of these species were observed around Ross Lake Islands.

The importance of fisheries in Ross Lake and various tributaries are
mentioned in Beaverton's 1980 Recreation Plan. Populations of trout, bass,
walleyes, bluegill, and pike, reside in Beaverton waters and are considered
important for recreational purposes.

The suitability and quality of water bodies as fish habitat depends on
such factors as degree of water pollution (sedimentation and chemical impurities), rate of flow, water depth, temperature, dissolved oxygen, hardness and pH. Water quality factors are greatly affected by land use. Impacts of development on water bodies can be minimized by taking precautions with various land uses. Development guidelines and standards and zoning are examples of measures that can be taken to protect watersheds and, therefore, water bodies.

J. Conclusions

Opportunities to maintain or accentuate local natural resources within city limits greatly adds to the quality of life in an area. In addition, it may create or maintain certain activities in Beaverton that will make the city more desirable to outside interests.

Much of the natural resources important to area wildlife and various recreational interests are located outside city boundaries, where citizens have limited input, but that does not mean they have limited interest in those and other outside natural resources. For example, if local businesses are providing services to naturalists, hunters, fishermen, etc., they will want to see the resources that bring individuals to the area protected and managed in the most beneficial way. This is a good example of taking the community in a regional context. That is to say, it is important to realize how resources outside the community affect the growth and development of the community.
IV. COMMUNITY FACILITIES

A. Public and Quasi-Public Facilities

Beaverton High School, Middle School and elementary school are part of the Beaverton Rural School District located within the City limits. The facilities are on approximately 20 acres and include playground equipment, two tennis courts, and baseball fields. School buildings are available to the public for various activities.

Beaverton has a library located on Saginaw Street just west of State Highway 18. Also on Saginaw Street is the Beaverton Community Center, which is owned by local civic groups. These facilities are located in a residential area and are within walking distance for many residents in the City. City Hall is on the corner of Brown and Plerson in the downtown commercial district. Beaverton has five churches in its boundaries, as follows:

*Reorganized Church of Jesus located on the north side of Brown street by Seeley street.
*United Methodist Church located on the northeast corner of Brown and Lakeview Drive.
*Church of Nazareth located on the north end of town on Park street.
*Landmark Baptist located on Brown street just west of Highway 18.
*Beaverton Presbyterian on Knox street and Highway 18.

Beaverton also has a cemetery, located on Ross Lake off Brown Street.
(See Land Use, map II-2, pg. 19 for pictorial locations)

B. Commercial and Industrial Development

Beaverton houses the County’s single largest industry, Brown Machine, situated north of town on the banks of Ross Lake. The City also has an industrial park with two established facilities in it, Potter Products and
Beavercraft. This park is located on the southwest corner of town and has access to Highway 18 via two gravel roads, which both pass by residences. The Industrial Park has water and sewer service. The industrial park is not certified. It was mentioned in the Gladwin Economic Development Plan that the park will require "facility upgrading" (i.e. paving, and better signage at entrances and on Highway 18).

Beaverton has some 42 commercial establishments, including three savings and loan institutions. Commercial areas are centered primarily around Highway 18. A complete list of commercial establishments can be found in appendix A.

C. Police and Fire Protection

The fire department has 20 volunteer firemen. Beaverton's fire insurance classification is 9 on a scale from 1-10 (ten being the highest risk for property loss in case of fire). The city has two sworn police officers. The County Sheriff's Department and the State Police also patrol the Beaverton area (Community Profile, Office of Community Development, Michigan Department of Commerce, June 1986).

D. Utilities

Consumer's Power supplies both electric and gas for the city of Beaverton. There are two fuel oil distributors in the Beaverton area. Michigan Bell provides telephone service to the area and has a facility across from the public safety building on Saginaw street (City of Beaverton 1980. Recreation Plan).

A water system exists throughout the City. Three municipal wells supply the City's water. One is located south of Tobacco River, below the dam and the others are located at the corner of East Brown and Third street. Pumping
capacity is 659,000 gallons per day, with consumption ranging from 50,000
gallons per day to with a 200,000 gallon capacity. Pressure in water mains
range from 52 psi to 60 psi (pounds per square inch).

Beaverton has a lagoon sewer system located in the far south east corner
of the city. The system consists of three cells, at five acres each. Lagoon
cells range from four to five feet in depth. The sewer network also extends
throughout the city. Capacity of the system is 400,000 gallons per day with
average usage amounting to 75,000 gallons per day.

E. Solid Waste

Rubbish service is provided by private haulers. Solid waste is currently
transported to the Granger Landfill in Ingham Co. According to the Gladwin
County Solid Waste Plan, Beaverton generates about 2 tons of residential waste
per day.

F. Parks and Recreation

There are two developed parks in Beaverton. Ross Lake Park is situated
on the north shore of the lake, off Highway 18, near the northern boundary of
the city. This park encompasses approximately 6 acres and includes a boat
launch, swimming area, picnic facilities, restrooms, and playground
facilities. In addition to serving Beaverton residents, Ross Lake Park
attracts residents from the southern portion of Gladwin County. Leo Ross
Memorial Park is located in a residential area near the termination of Brown
street east of Highway 18. It covers approximately one acre, has a picnic
pavilion and playground equipment. (Gladwin County Economic Development Plan
1971). The Glen G. Calhoun Park is located on Ross Lake, outside the city
limits south of town on Reehrs Road. This facility has primitive camping, a
ball diamond, playground, and picnic area. (1980 City Recreation Plan).
G. Health Facilities

According to 1986 figures from the Department of Commerce, there are two doctors and two dentists practicing in Beaverton. There is a medical clinic in the Beaverton shopping center. A 42 bed hospital is located in Gladwin, eight miles north of Beaverton.

H. Transportation

Highway 18 runs north-south through Beaverton and intersects U.S. 10 approximately ten miles south of the City. Fifteen miles to the west is U.S. 27 and eight miles to the east is M-61. See map IV-1, pg. 39 for major transportation routes on a regional basis. Within town there are seven miles of local streets, approximately six of those are paved. See map IV-2, pg. 40 for street surfaces within the city. Curb and gutter exist on approximately two miles of road in the city, and sidewalks are provided in the business district and those areas immediately adjacent to the business district (Beaverton Recreation Plan, 1980).

Gladwin municipal airport is located off Highway 18 eight miles north of Beaverton, the 4,700 foot runways are paved but not lighted. (Dept. of Commerce, 1986). Tri-City airport is 35 miles from Beaverton.

There are no railroad tracks in the city. Dial-a-Ride services are available in the area. Highway 18 is a state trunkline, and Brown, Peirson and Porter are classified as major streets by the Michigan Department of Transportation.
V. GOALS, OBJECTIVES AND STRATEGIES

A. Overview

Planning is a systematic process that seeks to maintain and upgrade the quality of life in an area by; 1) collecting and analyzing data with regard to the area, 2) determining needs and desires of community residents, and 3) formulating a framework for action to achieve stated goals and objectives. Key concepts integrated in the planning process involve the merging of diverse interest groups to promote the common good and quality of life for all involved, the identification and allocation of limited resources to meet community needs and the guidance of future growth in an efficient, logical manner that is both environmentally sound and aesthetically pleasing.

In order to be a viable effort the Master Plan must: 1) be part of a continuous process, 2) be based on accurate analysis of the current situation, and possible future scenarios, 3) reflect the needs and desires of community residents, 4) have support from citizens, 5) be used as a tool by responsible local decision-makers and 6) be applied, with other planning tools in a consistent and objective manner.

This Master Plan is a portion of the total planning process that will guide growth and development in the City of Beaverton. Previous portions of the Beaverton Master Plan have been devoted to the assessment and analysis of Beaverton's environs and population. Given this analysis, along with input from local citizens, (i.e., the Citizen Survey see Appendix C) the Planning Commission puts forth an outline of desired future status for the City. The outline is a series of goals, objectives and strategy statements for various elements of local concern.
POLICY FORMULATION

Goal: Promote the efficient use of land for harmonious City development while protecting the rights of individual land owners. Encourage development that does not conflict with surrounding land uses by segregating uses in appropriate areas.

Objective: Protect unique and environmentally sensitive areas within the City such as floodplains and riparian zones, lakefront areas, wetlands, areas with unsuitable soils for development, and areas with slopes of 15° or more.

Objective: In addition to protecting the City's unique and sensitive areas, provide adequate open space for recreation and beautification of Beaverton.

Objective: Where applicable, promote preservation of Beaverton's historic buildings and sites.

Objective: Protect the integrity and character of City neighborhoods.

Objective: Prime agricultural lands should be protected from the pressures of development from surrounding land use.

Objective: Provide adequate areas for commercial and industrial development.

PROGRAMS

Strategy: Review current zoning ordinance on a regular basis to ensure its applicability to current needs and development trends. Streamline regulations without compromising local standards. Determine appropriateness of existing zones, their location, and compatibility with existing uses/uses.

Strategy: Regulate lakefront development and prevent key development on lakefront property.

Strategy: To ensure consistency and quality in land development, formulate development standards that address such elements as sensitive areas, landscaping, noise abatement, on-site vehicular and pedestrian circulation, emergency vehicle access, shadowing of neighboring properties, stormwater management, light and glare, parking, and promotion of community character.

Strategy: Assess the consistency and effectiveness of the current site plan review process.

Strategy: Inventory and assess historical sites or buildings in Beaverton. Adopt provisions to protect historic resources.

Strategy: Review and update the City's Recreation Plan.

Strategy: Develop provisions for innovative land use such as planned unit
developments (PUD's), cluster zoning, etc., which accommodate modern
development needs.

**Strategy:** Review current land use patterns and formally identify nonconforming uses.

**Strategy:** Assess potential future annexations. Determine the land’s suitability for development or continued A-I designation.

C. **HOUSING ELEMENT**

**Goal:** Provide a variety of housing that is safe and affordable for the citizens of Beaverton.

**Objective:** Improve and maintain the quality of existing housing stock in the City of Beaverton.

**Objective:** Provide an adequate mix of single family and multi-family housing units in the City.

**PROGRAMS:**

**Strategy:** Institute a housing improvement program. Seek Michigan State Housing Development Authority funds to provide low interest loans to home owners wishing to improve their properties.

**Strategy:** Assess housing stock and gauge community housing needs on a regular basis.

**Strategy:** Form a local Housing Commission and/or work closely with the County Housing Commission.

**Strategy:** Promote additional development of multi-family units.

**Strategy:** Develop provisions for conversion of single family units into multi-family units.

**Strategy:** Develop provisions and standards for mobile home siting on private lots.

**Strategy:** Encourage home ownership by promoting state and federal programs that assist modest income households with financing of their own homes.

D. **CITY SERVICES AND PUBLIC FACILITIES ELEMENT**

**Goal:** Provide adequate services to insure public health and safety while enhancing local quality of life.

**Objective:** Enhance and improve circulation throughout the city for both vehicular and pedestrian traffic.
Objective: Enhance and improve local public safety and perceptions of security in the community.

Objective: Provide adequate facilities for cultural, social and recreational functions for the citizens of Beaverton.

Objective: Assess adequacy of City’s water and sewage facilities on a regular basis.

PROGRAMS:

Strategy: Complete network of sidewalks in the City.

Strategy: Investigate need for traffic signalling in the City.

Strategy: Improve stormwater drainage in the City by 1) identifying sources of runoff and alleviating runoff problems which include vegetative buffer areas and detention facilities and 2) facilitate stormwater drainage by improving storm sewers, especially storm and sanitary sewer separation.

Strategy: Assess repair needs of dams and initiate those repairs.

Strategy: Assess future needs of wastewater treatment and take measure to address those needs.

Strategy: Improve local roads by resurfacing, patching and grading identified problem areas.

Strategy: Develop a capital improvements plan which will provide a timetable and budgetary allocations for the above-mentioned capital improvements.

Strategy: Investigate and pursue state and federal monies for capital improvement projects. Form a local committee to contact applicable agencies that can provide assistance to the City. Delegate grantwriting tasks.

Strategy: Develop a volunteer network to help meet needs in the community and reduce fiscal pressures of service delivery.

Strategy: Work with local school officials to provide adequate programming for local cultural and recreational needs.

Strategy: Work with library and community center staff and volunteers to both assess and address local recreational and cultural needs.

Strategy: Investigate and pursue state and federal monies for cultural and recreational facilities. Also investigate possibility of private funding of these facilities.

Strategy: Increase the amount of police protection in the City by increasing manpower and/or developing a formal, integrated neighborhood watch program, volunteer neighborhood patrols, or contracting with another unit of government to provide services.
CITY ADMINISTRATION

POLICY FORMULATION

Goal: Increase the effectiveness and efficiency of City operations.

Objective: Streamline city operations where possible and expand or develop additional city services as needed.

Objective: Heighten local awareness of City planning and Administrative functions.

Objective: Enhance local perceptions of City government and services.

PROGRAM

Strategy: Analyze city service delivery capabilities. Assess monetary and personnel resources. Identify future needs and possible funding to support additional needs.

Strategy: Assess alternative means of service delivery (i.e., contracting out of services, volunteerism, and services based on user fees).

Strategy: Initiate an educational campaign with area newspapers, schools, businesses to make more individuals aware of city operations and the planning process the City is involved in.

ECONOMIC DEVELOPMENT ELEMENT

POLICY FORMULATION

Goal: Promote a diverse economy that provides opportunity for local interests, as well as opportunity for potential new businesses locating from outside the community.

Objective - Increase tourism in the City.

Objective - Attract additional industry to the City.

Objective - Enhance existing businesses and address their needs.

Objective - If applicable, develop agriculturally based business.

PROGRAMS

Strategy: Assess area tourism potential and assets and develop that potential in cooperation with area business.

Strategy: Upgrade and seek certification for the Industrial park.

Strategy: Encourage siting of new industry by heightening level of awareness.
of the Beaverton area and developing incentives for industry to locate.

Strategy: Assess potential of agriculturally based business and enhance where possible.

Strategy: Initiate regular formal communications with local business to better understand and service the needs of citizens and proprietors in the community.

Strategy: Become more aware of and involved in local and regional economic development coalitions such as the County Chamber of Commerce, other local chambers in the area, Growth Alliances, Community Development Corporations, etc.

Strategy: Market Beaverton’s assets in outlying areas.

Strategy: Promote the rehabilitation of commercial districts by encouraging beautification projects (i.e. plantings, storefront revitalization, etc.).

Strategy: Appoint an Economic Development Task Force to promote and enhance the Beaverton Business Community.

E. LAND USE AND DEVELOPMENT

Land use patterns of an area have a tremendous influence on growth and development trends. An established land use influences, among other things, surrounding land uses, future land use, circulation and aesthetics of the community. Allowing land use patterns to develop in an uncontrolled manner can lead to several problems for private citizens and the public interest alike. Haphazard development increases the cost of service delivery, can cause civil disputes (incompatible uses infringing on the property rights of others, etc.) and a decrease in the general quality of life in an area. Fortunately, as dictated by State mandates, land use control is within the scope of rights for a unit of government, acting in the best interest of the community to protect the health, safety and welfare of its citizens. There are several land use control tools available to units of government (i.e., the master plan, zoning ordinance, development standards, site plan review and subdivision controls) which must be applied consistently and impartially.
Land use controls need a basis in the master plan and should be developed with some basic underlying concepts. Many of these were addressed previously in the land use element of the Goals and Objectives section. Some discussion of planned future land uses is warranted, however, and will be as follows (see Future Land Use map for delineated areas):

Agricultural or open areas: are intended to have minimal development, primarily located around the boundaries of the City to act as buffer zones.

Environmentally sensitive areas: Riparian zones, floodplains and wetlands should not be developed in any capacity, but set aside for their aesthetic and wildlife values.

Residential areas: Low density development is intended primarily for single family units and other low intensity uses allowed by the zoning ordinance. Moderate to high density residential areas are intended for multi-family uses.

Commercial areas: Are intended to be centered around the downtown area and along the I-18 corridor. High density retail activities in need of parking and pedestrian access will be channeled into the downtown area. Commercial establishments in need of exterior space and storage will be channelled outside the downtown area.

Industrial areas: Industrial development will primarily be limited to the industrial park.

VI. IMPLEMENTATION

Previous sections outlined goals and objectives, presenting a picture of what is desired for the City of Beaverton in the future. These goals and
objectives have been developed throughout the planning process by extensive
data collection and analysis, meetings and discussion with the City’s Planning
Commission, a community attitude survey, and observations of the community by
East Central Michigan Planning and Development Region staff.

Once goals and objectives are outlined, strategies, or action statements,
are presented. These strategies may be long-term, (2-5 years) or short term
in nature (6 months - 1 year). Strategies are the tasks that spur plan
implementation. Generally, the strategies fall under one of the following
categories:

1. **Land use controls**, i.e., zoning ordinance and zoning map revision, and development standards.

2. **Physical improvement**, i.e., housing, commercial rehab and capital improvements.

3. **Finance and resource allocation**, fiscal and/or human resources.

4. **Cooperation among various facets in the community**, i.e., business, schools and local government (elected officials, citizens, city service deliverers).

Regardless of the elements involved, creative problem solving and
community collaboration is essential for success. Following is a listing of
local strategies.
<table>
<thead>
<tr>
<th>STRATEGY</th>
<th>TIME-FRAME</th>
<th>RESPONSIBLE PERSON</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LAND USE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoning Ordinance Review</td>
<td>3-6 months and yearly thereafter</td>
<td>Planning Commission and/or designated agent</td>
<td></td>
</tr>
<tr>
<td>Formulation of development standards</td>
<td>Within 6-9 months of plan adoption</td>
<td>&quot;</td>
<td>&quot;</td>
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<tr>
<td>Refinement of Site plan review process</td>
<td>Within 9-12 months of plan adoption</td>
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<td>&quot;</td>
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<tr>
<td>Non-Conforming Use Inventory</td>
<td>1-3 months</td>
<td>Planning Commission</td>
<td></td>
</tr>
<tr>
<td>Historic site/building inventory</td>
<td>1-3 months</td>
<td>City Council</td>
<td></td>
</tr>
<tr>
<td>Assessment of potential future annexations and their uses</td>
<td>3-6 months</td>
<td>City Clerk</td>
<td></td>
</tr>
<tr>
<td><strong>SERVICE DELIVERY AND FINANCE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital Improvements Plan</td>
<td>1 year from plan adoption and biannually thereafter</td>
<td>DNM Director</td>
<td></td>
</tr>
<tr>
<td>Funding source identification and proposal writing</td>
<td>Continuous, to coincide with various funding cycles</td>
<td>Department Head needing finances</td>
<td></td>
</tr>
<tr>
<td>Revised Recreation Plan</td>
<td>In progress</td>
<td>Planning Commission and City Council</td>
<td></td>
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<tr>
<td><strong>HOUSING:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing needs assessment</td>
<td>6-12 months from plan adoption</td>
<td>City Council</td>
<td></td>
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<tr>
<td><strong>ECONOMIC DEVELOPMENT</strong></td>
<td></td>
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<tr>
<td>Form business development Task Force</td>
<td>1-3 months</td>
<td>City Council</td>
<td></td>
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<tr>
<td>Assess local tourism potential</td>
<td>Continuous</td>
<td>City Council</td>
<td></td>
</tr>
<tr>
<td>Development marketing strategy for Beaverton</td>
<td>Continuous</td>
<td>Planning Commission</td>
<td></td>
</tr>
<tr>
<td>Determine local commercial and industrial needs</td>
<td>6-9 months initially, then continuous</td>
<td>City Council</td>
<td></td>
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</tbody>
</table>