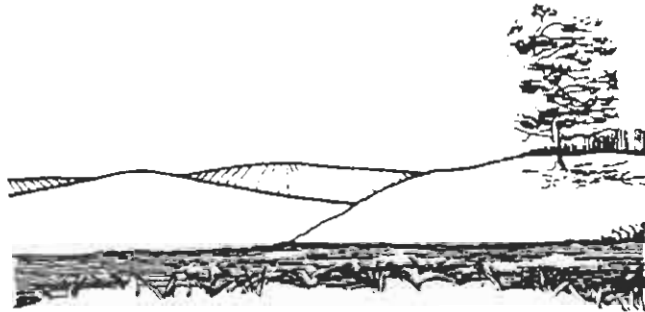


**ELEMENTS
OF THE
GROWTH MANAGEMENT PLAN**

Natural Features

Goal:

The preservation of existing natural features including wetlands, flood plains, woodlands, topographic features and the protection of the quality of surface and ground water for the enhancement of the quality of the natural environment.



Background

Freedom Township is distinguished by varied natural features throughout the Township. From its woodlands, wetlands, and topographic features, it offers diversity that can be appreciated within the rural setting. Natural features such as lakes, wooded area, marshland and significant topographical features play an important role in determining the character of Freedom Township. As one of the major elements of the Growth Management Plan, the recreation and open space system identifies and establishes the proper use of these areas and strengthens the total Plan concept.

The natural resources described in the GMP as open space areas are intended only to illustrate the concept of the open space or natural resource systems in the Township. These areas are not intended to be specific for any one site. The actual extent, location, and relationship to existing and proposed development will be determined at the time of development review when detailed information will be available.

The GMP relates to a natural resource system that has been developed around significant natural features, major wooded areas, soils with severe limitations for residential development and a network of existing County drains. Natural resource areas, therefore, are of extreme importance to a growing community and serve as a reminder of man's relationship to his natural environment. Following is the location, extent, and characteristics of these and other natural features.

Natural Features and Soil Patterns

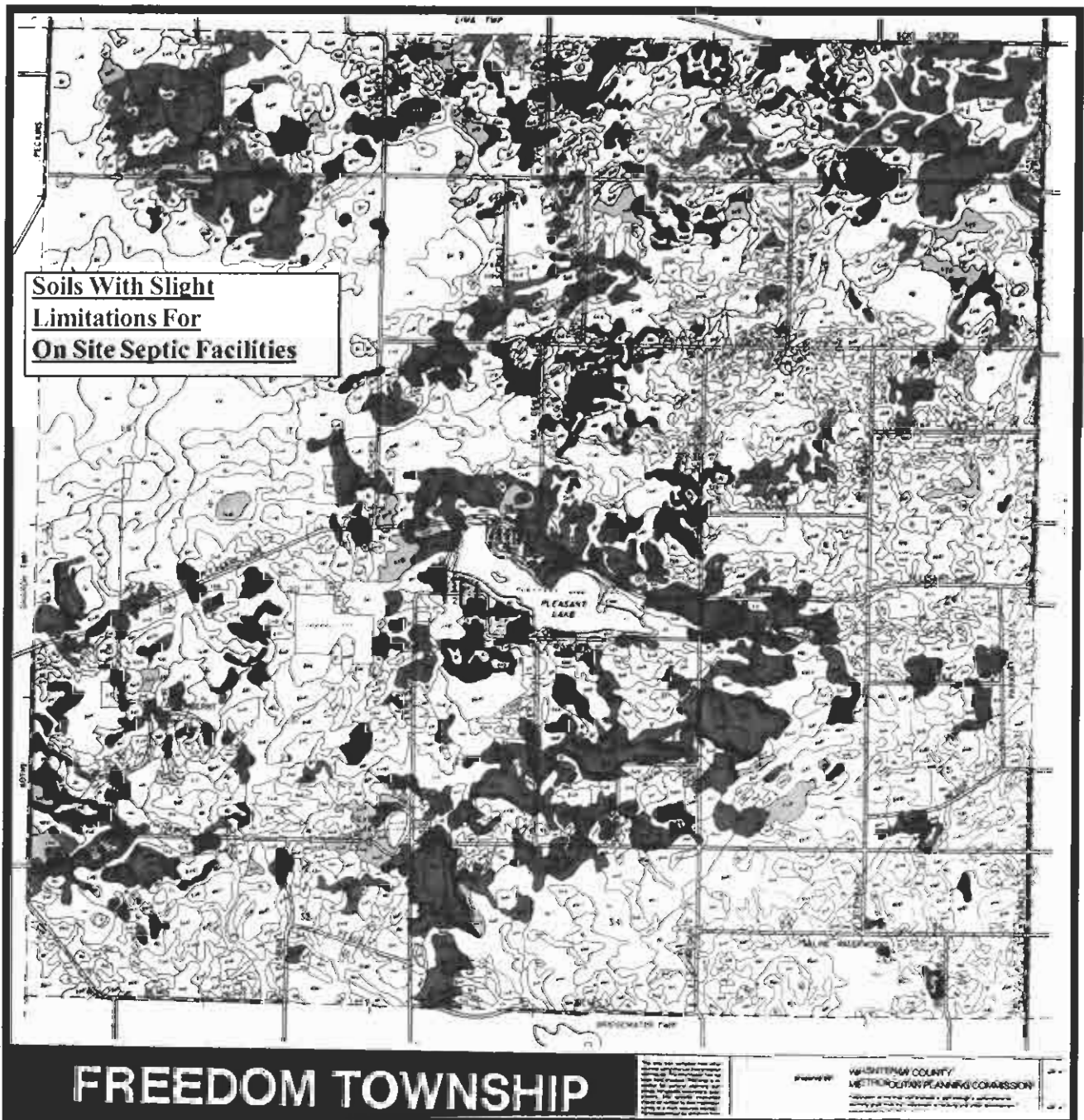
Freedom Township is fortunate to have considerable rolling countryside much of which is wooded. Pleasant Lake, with its 210 acres of water surface, is the central focus for the Township. The eastern portion of Pleasant Lake is a marshy lowland which derives its character through drainage to Pleasant Lake from the surrounding area.

Freedom Township is located in an area without accessibility to existing public sewer and water facilities; therefore, it was critical in the formulation of the Township's Growth Management Plan to thoroughly investigate existing soil conditions. Using the most current soil survey of the Township, conducted by the U.S. Department of Agriculture, Soil Conservation Service (SCE), as a base, an analysis of agricultural and residential capability was conducted. It should be noted that the SCS survey is based on a sample taken to a depth of approximately five feet, and thus does not reflect the soil conditions below this depth. However, it may be used with confidence in determining agriculture capability and as a general indication of soils capable of supporting on-site sewerage systems. An outcome of that analysis indicates that a substantial portion of the soil in the township depicts severe or very severe limitations for residential development. The soil pattern is scattered with the major areas of soils with few or moderate limitations for residential development being located in three general areas.

These areas are located in the northern portion of the Township, the area surrounding Pleasant Lake and extending south toward Bridgewater Township, and an area in the southwest quadrant of the Township. A generalized map of residential capability is found on the accompanying map.

Much of the Township is currently farmed and has established an agricultural character the Township wishes to retain. Farm crop limitations of the Township are found on the following map.

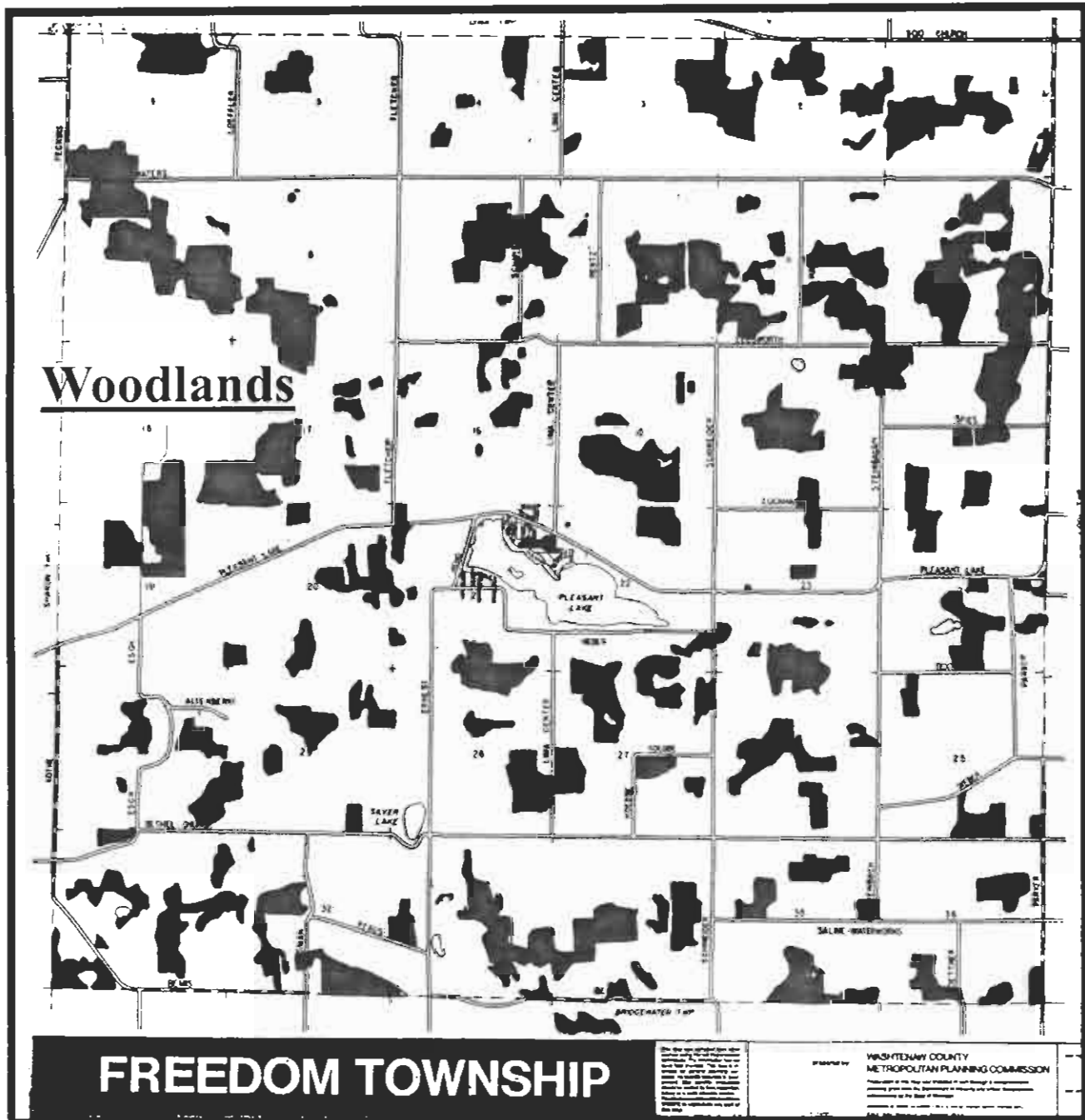
Freedom Township Soil Suitability for On-Site Septic



Woodlands

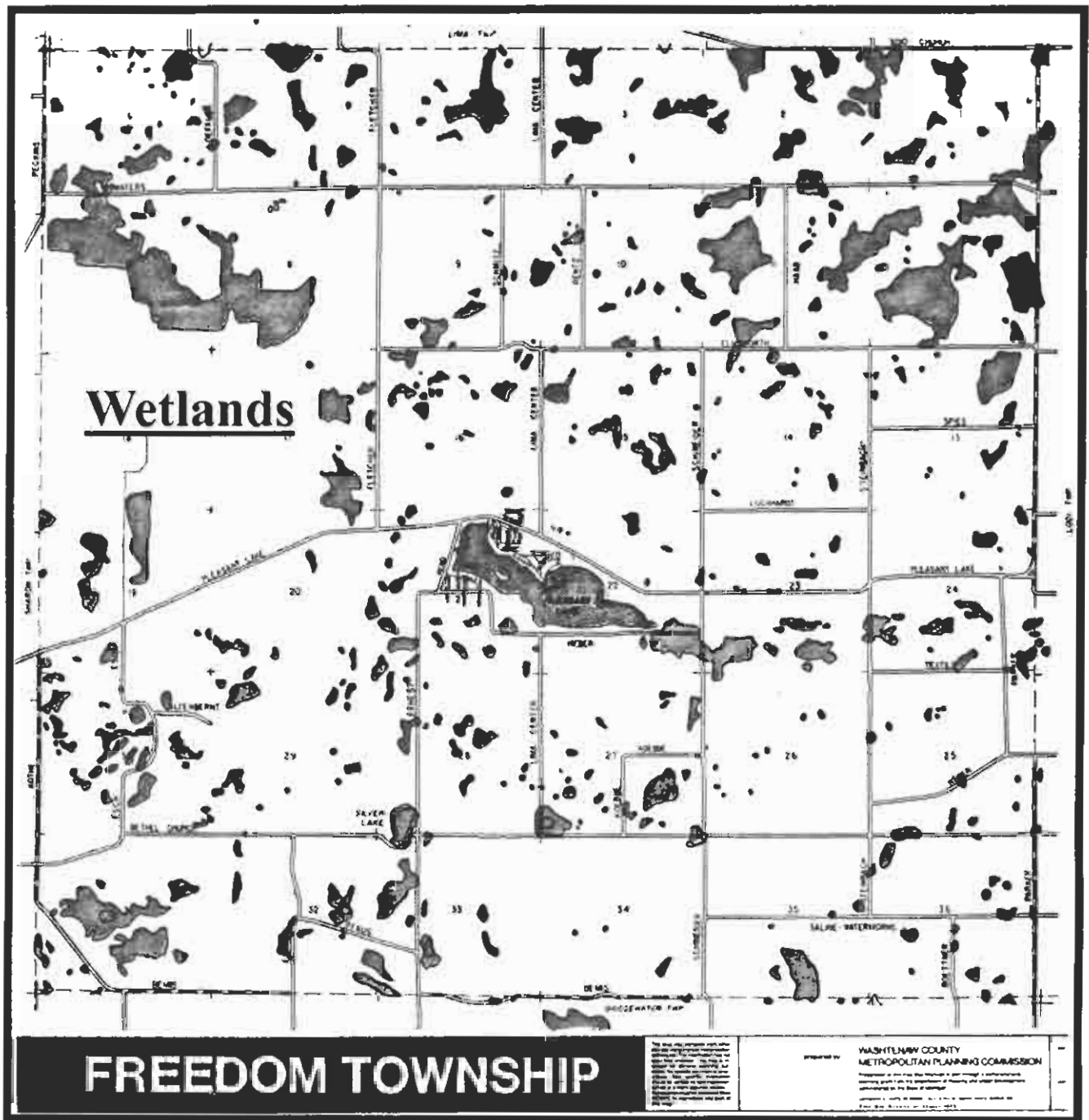
Approximately 14% (22,659 acres) of Freedom Township's land area is presently woodland. There are a total of 78 separate woodlots within the Township. Nine of these woodlands are 5-10 acres in size, two are 11-40 acres in size and 27 have 40 or more acres. Areas defined as woodlands refer to lands that are at least 10% stocked by trees capable of producing timber or other wood products. The majority of the woodlots are 40 acres or more in size. Woodlots of this size can support various types of wildlife and can act as a community within themselves.

Significant woodlands are dispersed throughout Freedom Township. Woodlands are depicted on the following Map.



Wetlands

Wetlands were mapped using U.S. Geological Survey Quadrangles and then compared with aerial photographs. A generalized classification system was then developed by the Washtenaw County Metropolitan Planning Commission. The most important wetlands were those that are contiguous to lakes, rivers, and streams, and that are important for stormwater storage. These wetlands, designated as "first priority" by Washtenaw County are shown on the accompanying map. These wetlands cover various areas of Freedom Township. Significant concentrations are located in the north east and south western portions of the Township.



Topography

Within Freedom Township, slopes range from relatively flat to gently rolling hills and to areas that exceed 18% slope. As can be seen from the accompanying map, slopes ranging from 6 to 12 percent predominate the south eastern portion of the Township and are also scattered throughout the north eastern portion of the Township. Land in the north west and central areas of the Township are relatively flat and have significant ongoing agricultural activities. Slopes ranging from 12 to 18 percent are in the south west and north east parts of the Township and are also shown on accompanying Map. Steeper slopes of over 18% are generally found in the south west portions of the Township.

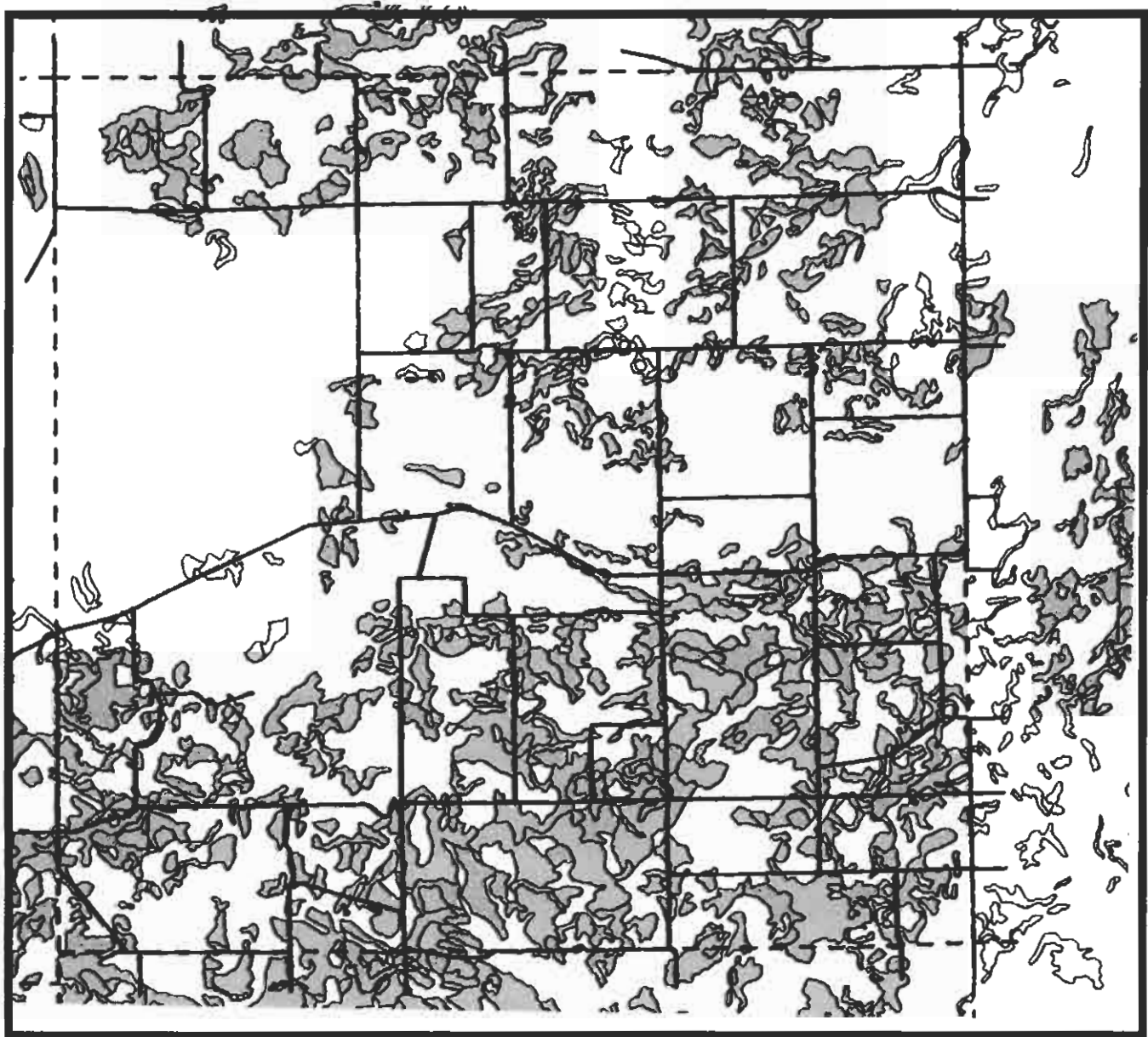
Percent Slope



6% To 12% Slope



12% To 18% Slope



To maintain the rural, natural and scenic qualities of the Township of Freedom, potential development should be regulated to promote the preservation of natural features. Significant wildlife habitats, sensitive environmental lands and scenic vistas are to be protected. The significant natural resources within Freedom Township including stream corridors, wetlands (including wet and organic soils), ground water recharge areas, flood plains, watersheds, woodlands, and slopes (primarily steep slope areas, in the range of 12-18% and over), are to be reviewed according to the following policies:

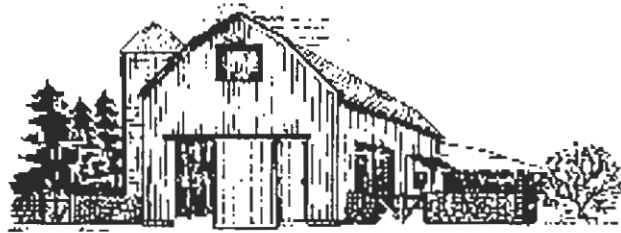
To accomplish the preservation of natural features within Freedom Township, the following policies are set forth.

- A. The natural features described in the GMP as open space areas are intended only to illustrate the concept of the open space or natural feature systems and to indicate the general location of such features in the Township. These areas are not intended to be specific for any one site. The actual extent, location, and relationship to existing and proposed development will be determined at the time of development review when detailed information will be available.
- B. It is the intent of this GMP to achieve continuity of the natural features to create systems of open space. This will be accomplished by utilizing proximity as well as contiguity of natural features, as in a stream corridor, in order to achieve a true system. Such an open space system may be any combination of natural features.
- C. Streams, water bodies, and wetlands should be used as part of the storm drainage systems of the Township. These features should be protected from disturbance by construction and from pollutants and sediments which might be carried by runoff from developing or developed areas. It is the intent of this GMP to protect surface water, stream corridors, and wetlands in their natural condition.
- D. Natural features should be used to create boundaries of use areas or to separate development areas from agricultural areas.
- E. To provide for the protection of the Township of Freedom's potable fresh water supplies from the dangers of drought, overdraft, contamination or mismanagement.
- F. Attractive natural streetscapes along all Township roads and streets shall be maintained to continue to promote the rural visual character of Freedom Township.
- G. The use of planned unit development and cluster developments shall be encouraged to establish permanent easements for open space or agricultural use on common lands and to protect designated natural features within environmentally sensitive areas.

Agriculture

Goal:

The retention, stability, and conservation of agricultural activities in Freedom Township for the support of long term agricultural use and preservation of prime agricultural soils.



A major concern in the formulation of a Growth Management Plan for Freedom Township is the preservation of the Township's agricultural character. Freedom Township is an active and productive agricultural community and all efforts should be made to encourage its continuance. Conflicts between urban and rural uses should be avoided wherever possible.

Prime agricultural land is a vital natural resource that has to be accurately identified and protected from non-agricultural land uses. It has to be recognized that good agricultural land is irreplaceable and that once this land is developed into housing, commercial, or industrial uses, it is lost to farm use forever.

Virtually all sections within the Township are orientated toward agricultural activities. The following characteristics are common:

1. The quality of soils support the existing agricultural activities.
2. Few non- agricultural land use infringements have taken place.
3. The area has remained stable with few parcel splits taking place.
4. Parcel sizes are generally large enough to support long term agricultural operations.

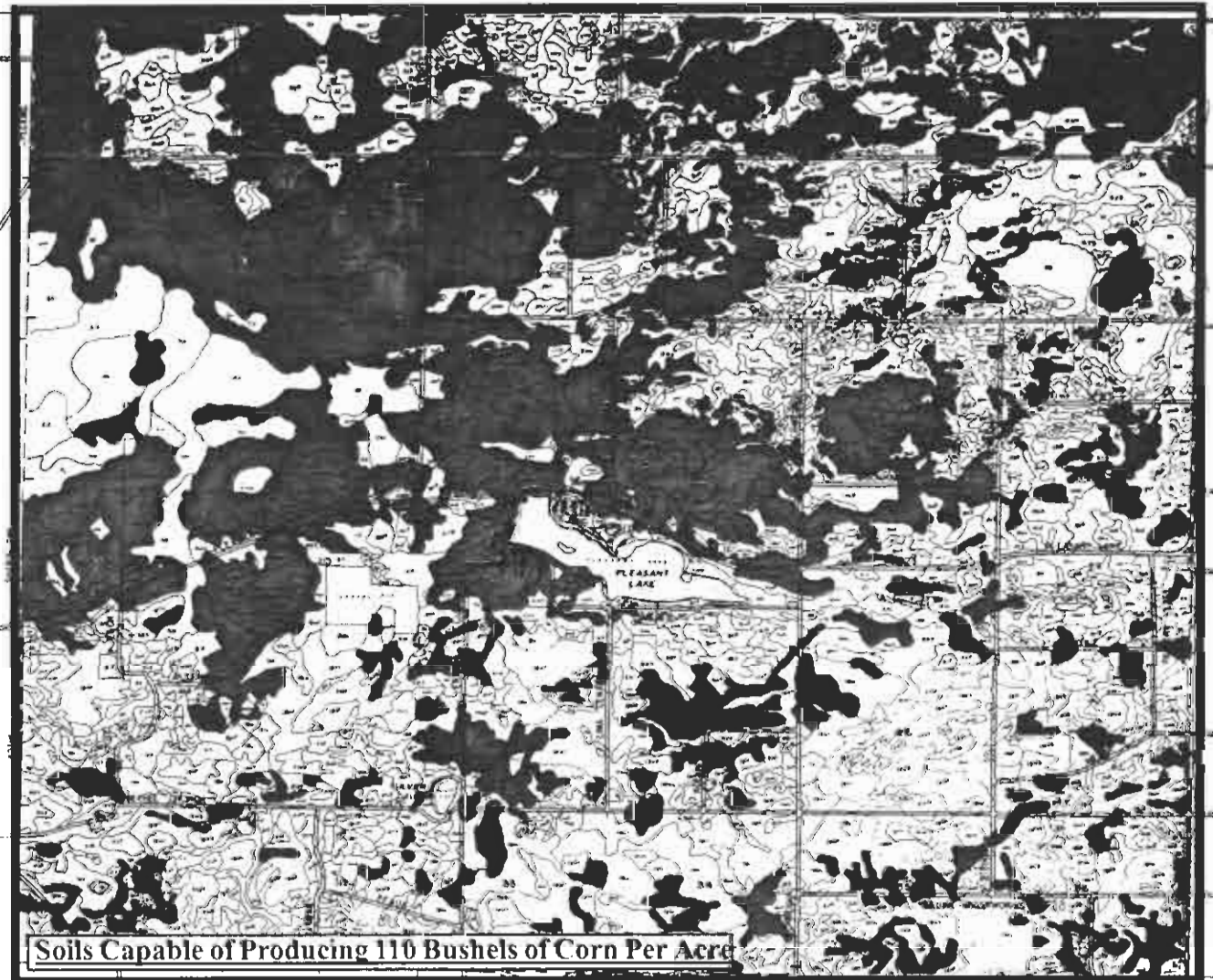
As seen in the accompanying chart, agriculture comprised over 60% of the land use within Freedom Township. This is followed by the category of woodlands, shrub, grassland, and wetlands which amounts to 33% of the Township land area. Together these categories comprise almost 95% of the Township's land area.

LAND USE 1995

	<u>Acres</u>	<u>Percent</u>
Single Family Residential	1,049	4%
Commercial and Office	0	0%
Institutional	14	0%
Industrial	17	0%
Transportation, Communications, Utilities	33	0%
Cultivated Land	16,963	74%
Woodlands, shrub, grassland, wetlands	3,996	17%
Water	292	1%
Barren, Extractive	217	0%
Cultural, outdoor recreation and cemetery	161	0%
Total Acres	22,742	100%

Stable and cohesive agricultural areas exist throughout Freedom Township. The Township's agricultural lands have been relatively free from intrusion by incompatible land uses. The following map depicts agricultural lands that are capable of producing over 110 bushels of corn per acre. These lands are considered the best agricultural lands within Freedom Township for agricultural production.

The number of farms that participate in PA 116 is also high for the Township. Ninety-one applications have been submitted



for this State program amounting to 13,410.03 acres.

In reviewing agricultural lands within Freedom Township two categories of agricultural land use are designated on the GMP.

Agricultural Lands - Freedom Township contains land which is suitable for long-term agricultural uses. Agricultural service activities and establishments, such as farm equipment sales and services, grain storage, and feed and fertilizer sales as well as the production of various crops, livestock, and dairy products are anticipated agricultural uses.

It is understood, however, that a limited number of rural dwellings could be permitted in the agricultural areas under the following criteria:

- A. As farmsteads, one dwelling per farm for occupancy by the family of the owner or the manager.

- B. As tenant dwellings for families of tenant workers on the farm.
- C. According to the "Sliding Scale" zoning concept.
- D. Subject to rezoning to a rural residential district and the following criteria:
 - 1. The land should be located on an existing public road.
 - 2. The land should not have been farmed in recent years.
 - 3. The land, if developed with rural residences, should not interfere with the continuity of agricultural operations in the area.

Residential use should not be considered a principal land use within agricultural area because it will undermine the stability of long-term agricultural production.

To accomplish the preservation of agricultural activities within Freedom Township, the following policies are set forth.

- A. Potential development within Freedom Township will be directed away from areas designated for agricultural use.
- B. Zoning changes in the areas designated as Agricultural lands should not be approved except in the case of requests to cover existing concentrations of rural dwellings, to fill in vacant parcels within such concentrations, or to permit expansion of such areas necessary to reach reasonable, natural boundaries so long as such expansion does not interfere with agricultural production. The criteria set forth above could be applied. A specific zoning district (cluster concept) designed for rural dwelling units in such situations should be encouraged.
- C. Agricultural land should be preserved primarily by means of zoning controls, (sliding scale, cluster concepts) supplemented by the Township's capital improvement decisions and Act 116 approvals. While there are serious limitations to the effectiveness of this approach, these are the only reasonable available means until the State or Federal governments develop additional policies and programs for preserving agricultural land.
- D. Encourage the use of assessment policies which reflect the agricultural value of land in agricultural use by designating farmed parcels in the agricultural land classification.
- E. Act 116 applications for lands within the designated Agricultural areas should be approved.
- F. In new development areas adjacent to agricultural lands, a buffer of land and landscaping should be provided on the non-agricultural lands, along the common boundary. Existing natural features, such as fence rows on either the development land or the agricultural land, could be used to provide the needed buffering. Also buffering along highways should be stressed to enhance the visual character of rural areas.
- G. Natural features located within a designated agricultural area should be preserved as an integral part of the area. Such natural features should be considered essential to the continuity of the agricultural area.

RESIDENTIAL

GOAL:

Residential development will be provided and located within desirable residential settings, that are sensitive to the environment, to ensure a maximum choice of dwelling units within the Township.



The GMP depicts one category of residential development. The areas shown for this use have adequate soil percolation capability to support required on-site sewage treatment facilities. This classification comprises approximately 420 acres of land and is clustered around Pleasant Lake and on Schneider road south of Pleasant Lake Road. Two additional areas are also designated for long term single family residential use. These areas comprise:

1. The Barrett Land holdings, located south of Pleasant Lake Road and west of Pleasant Lake, that is currently being used as an extraction operation.
2. The Thompson McCully lands, currently being used as an extraction operation, located east of Kothie Road and south of Pleasant Lake Road.

The reasons for the location of Low-Density Residential development in these areas are:

1. The soils are of sufficient capability to support year round on-site sewage systems.
2. The location of existing development in the Pleasant Lake area.
3. The long range development plans for the Barrett and Thompson McCully lands which are designated for single family residential.

Density within the above identified areas shall not be greater than a net density of one dwelling unit per acre. A school, Freedom Township hall and local commercial activity warrants increased concentration of residential development to further strengthen the neighborhood community concept.

Newly developed low-density residential areas in this GMP should, where possible, take the form of subdivision cluster development with internal road networks. This will increase the economical use of land and minimize hazardous curb-cuts along major thoroughfares. Adequate rights-of-way should be provided for such roads to insure sufficient space for public utilities and road maintenance.

To accomplish the Residential Goal as presented within this GMP, the following policies are set forth. These policies refer to all residential growth, including concentrated developments, such as subdivisions and site condominiums. The policy does not include scattered, rural non-farm or farm housing.

- A. A variety of housing types are located within desirable residential settings, to ensure a maximum choice of dwelling units and a mix of population within the Township.

- B.** Residential development shall be directed away from the Township agricultural lands. The Township's Sliding Scale Zoning Concept should be maintained to ensure long term agricultural use without residential infiltration.
- C.** Land capacity shall be considered when determining the appropriate density of development. The density shall be established at a level that will neither damage environmental features nor intrude upon agricultural lands. Residential development shall be organized around natural features or recreational amenities, and site and architectural design that will create neighborhoods of lasting value and stability shall be encouraged.
- D.** Dwelling units shall be placed on portions of the site most suited to development in order to preserve natural features. Measures that protect the environment during and after development shall be instituted and implemented.
- E.** New residential development shall be compatible in density and character with existing residences and neighborhoods in the immediate area.
- F.** In order to emphasize the rural character of Freedom Township and to permit property owners to utilize the allotted residential density, clustering of dwelling units on small parcels will be encouraged. The remaining land in the total parcel would be held in common ownership; it could remain as open space or be used for agricultural purposes. Clustering of rural residences will be permitted in accordance with the following:
1. All residential development that occurs at a density of 1 dwelling unit or more per acre, and that consists of 20 net acres or greater, shall be developed under a planned unit development, cluster residential, or similar zone, thereby providing its own open space and recreational facilities. The minimum lot area should be the minimum necessary to obtain County Health Department approval of a water supply well and drain field.
 2. Clustering shall maintain an overall site density in order to provide permanent open space for recreational or environmental conservation use. Each lot for each dwelling unit should have at least one lot line that abuts the commonly owned open space or agricultural land.
 3. Comprehensive pedestrian circulation systems shall be included:
 4. Residential development shall be organized around focal points such as open spaces, lakes, or village greens; and
 5. Open space buffers shall be required from adjacent suburban, rural, or agricultural land uses.
- G.** Residential development should be organized away from major streets, with no direct dwelling unit access to such streets.
- H.** A high quality of site and architectural design should be encouraged in every residential development to create residential areas of lasting value and stability.
- I.** Residential areas are designated in terms of density. In terms of calculating density for specific parcels, the following shall be excluded from the total acreage used in calculating the density of dwelling units:
1. Existing rights-of-way and easements.
 2. Rights-of-way or easements of proposed local and collector streets.
 3. Flood plains, swamps, and other wetlands, and stream corridors.
 4. Lands to be purchased for public use.

COMMERCIAL

GOAL:

Commercial land uses within the Township consist of local uses and shall be established to serve the needs of Township residents and integrated with surrounding land uses. Only limited amounts of commercial development will be needed for Freedom Township within the scope of this Growth Management Plan.



As shown in the Growth Management Plan, a single concentration of local commercial activity is proposed in the general proximity of Pleasant Lake Road and Lima Center Road. The primary function of this classification is to serve residential development in the general area as well as nearby rural residents.

Existing major commercial centers in adjacent communities provide the primary commercial services to Township residents. It is not likely that significant commercial development within the Township could challenge the market dominance of existing adjacent commercial developments, nor is it sound regional planning policy to encourage duplication of services. Commercial development is focused on the following:

The location of local commercial activity provides an important element in strengthening the neighborhood community center concepts in Freedom Township. Residents of existing and planned residential units in the area have ease of access to stores which meet their daily needs. Further, a high degree of interaction is attained between schools, commercial services, public services, public facilities and residents of the area. The GMP indicates that commercial activities are to be discouraged from locating elsewhere in the Township.

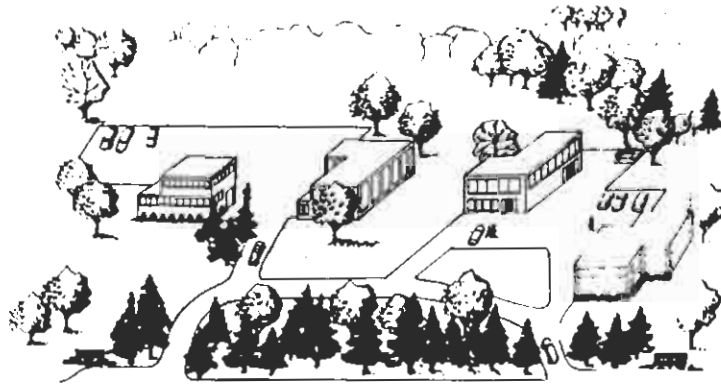
To accomplish the Commercial Goal as presented within this GMP, the following policies are set forth.

- A. Commercial shall be organized into compact, unified centers that complement the scale and character of existing development or that promote the desired character for areas where new development is planned.
- B. Piecemeal or scattered development shall be avoided and uncoordinated commercial strip development shall be prohibited. Where individual parcels of land are to be developed for commercial uses, coordination with adjacent properties, including common parking and driveways, shall be encouraged in order to reduce the number of access points onto Pleasant Lake Road.
- C. Commercial uses shall be landscaped and, where necessary, should be screened by landscaping from adjacent residential areas to reduce heat and glare from pavement areas, to partially screen parking areas from view, to control noise, and to increase the attractiveness of such centers.
- D. Exterior lighting shall be located and maintained to prevent the reflection and glare of light in a manner which creates a nuisance or safety hazard to operators of motor vehicles, pedestrians, and neighboring land uses. This provision is not intended to apply to public street lighting.
- E. Commercial land uses are intended to reflect the character of and are integrated with adjoining residential areas.
- F. Where appropriate, commercial, office, and residential components should be coordinated within Planned Unit Development zoning so as to create a diverse, pedestrian oriented environment.

INDUSTRIAL

GOAL:

Specific areas within Freedom Township should be utilized as industrial centers which can be integrated with surrounding land uses and not create hazards for the Township's environment nor create adverse impacts on existing or proposed residential or agricultural uses.



The Plan shows industrial areas within the Township, both of which presently exist. One is located immediately west of Pleasant Lake, while the other is located at the intersection of Ellsworth and Fletcher Roads. Both are locations of utility complexes. By indicating these in the Plan, the Township has expressed the desire to allow these two uses to exist and expand moderately, while discouraging other industrial activities from locating elsewhere in the Township.

Industrial needs of Township residents area currently adequately served by the existing industrial centers within the Township and by centers in surrounding communities. No basic or large scale manufacturing or processing operations should be permitted in the Township.

To accomplish the Industrial Goal as presented within this GMP, the following policies are set forth.

- A. Natural features located on Industrial lands shall be preserved and shall be integrated into the site design.
- B. Industrial areas shall be located only in areas of the Township where adverse impacts on existing or proposed residential or agricultural areas will be avoided.
- C. Exterior lighting shall be located and maintained to prevent the reflection and glare of light in a manner which creates a nuisance or safety hazard to operators of motor vehicles, pedestrians, and neighboring land uses. This provision is not intended to apply to public street lighting.
- D. Expansion of industrial centers should have a campus-type setting, a low density of development with large open spaces and extensive landscaping. Existing natural features should be preserved and incorporated into development plans.

COMMUNITY FACILITIES

GOAL:

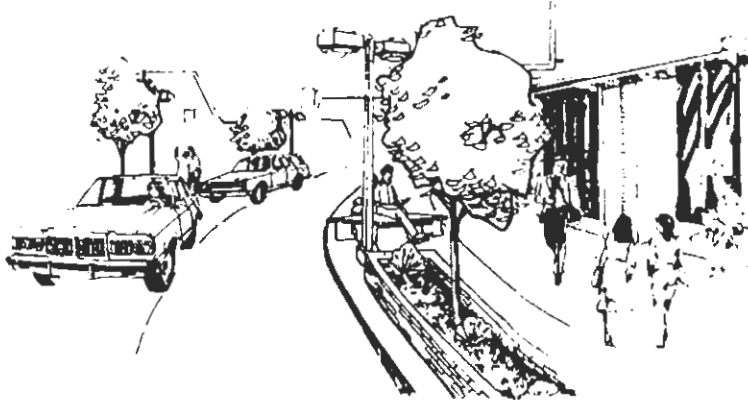
Allow various types of community facilities that are necessary for various types of development within Freedom Township. To accomplish this goal the following policies are set forth regarding drainage facilities:

- A. Private community sanitary sewage treatment systems shall not be permitted within the Township. Any properties permitted to develop with on-site services in any designated sewer service areas should be required to connect with public sewer lines when they become available.
- B. Storm drainage shall be included when evaluating the suitability of a site for development and when determining the appropriate density of development.
- C. On-site drainage facilities shall be adequate to deliver surface water runoff to established drainage courses.
- D. Drainage systems shall be located and designed to prevent sediments and pollutants in surface runoff from entering water courses and groundwater aquifers.
- E. Drainage districts should be established as part of each development to ensure proper long-range maintenance of drainage facilities.
- F. Generally, impervious surfaces should not be connected to drainage systems. Run-off should be routed over grassy swales or similar areas which help to filter run-off.
- G. Open and natural drainage courses should be utilized as part of the drainage system where possible, and where the natural drainage course will not be adversely affected.
- H. Open courses should be landscaped to enhance the open space or landscape scheme of the site or area, or be designed to function as natural wetlands.
- I. Existing wetlands should not be incorporated into site drainage systems, unless it can be adequately proven that the wetlands shall be protected from any adverse impacts. Extensive clearing of vegetation which buffers the wetlands from erosion and filters sediments and pollution from run-off shall be prohibited.
- J. Storm water run-off from any development area should not exceed that which existed under undeveloped, natural conditions, in terms of volume and velocity. Run-off under existing undeveloped conditions which causes problems should be altered to acceptable rates and amounts by drainage improvements as part of individual developments or drainage districts.
- K. Storm water retention should be provided on private property as part of a site development plan, or as part of area-wide drainage systems, or as a combination of on-site and area-wide facilities. Retention basins should be used to control the volume, quality, and rate of storm water run-off and to recharge the groundwater supply. Retention basins should be designed to hold at least a 100 year storm of a 12 hour duration.

ROADWAY SYSTEMS

GOAL:

To promote the rural and scenic character of roadways within the Township while providing a safe, efficient transportation system that facilitates movement through the Township on designated roadways.



The Thoroughfare Plan is a necessary element of the Growth Management Plan and is designed to establish a logical and efficient transportation network that functions in harmony with proposed land use activity areas. The primary object is to establish a system of roads which provides safe, convenient and efficient vehicular movement while maintaining the rural character of the Township. Provisions should be made to minimize hazardous curb-cuts and other points of access to collector roads by establishing internal local street networks. Local streets also serve as easements for public utilities as do other roads and thoroughfares; therefore, adequate rights-of-way should be provided to allow for such services. The functional classification for the Township Thoroughfare Plan is designed to be compatible, in a relative sense, with the function of other roads throughout the County. The classification assigned to each road in the system does not infer the number of lanes of pavement; rather, it depicts the function of the road as part of an integrated network.

The Thoroughfare Plan for Freedom Township provides four levels of road types: Primary Roadways, Collector Roadways, Local Roads and Local Streets. Also consideration is given to roadways that are classified as Special Corridors.

Every effort shall be made to maintain the established character of existing roadways within Freedom Township. New roadways should be designed in accordance with designated functions considering the integrity of the area in which it serves. The following functional classification system shall be used as appropriate guidelines:

Primary Roadways

Primary roadways carry the highest traffic volumes in the Township and serve both regional and local traffic. Primary roadways connect local roadways with the interstate system and major roadways in adjoining communities. The following design standards should be established for primary roadways:

1. 2 paved lanes minimum; and
2. use of shared driveways and access roads, where feasible, to minimize access points to primary roadways.

Primary roadways should be designated as follows:

1. **East/West:**
 - a. Scio Church Road.
 - b. Pleasant Lake Road.

2. North/South:

- a. Fletcher Road.
- b. Schneider Road from Bemis to Pleasant Lake Road.
- c. Parker Road south to Pleasant Lake Road.

Collector Roadways

Collector roadways primarily serve local traffic and distribute traffic from local roadways to primary roadways. The following design standards should be established for collector roadways:

- 1. 2 lanes minimum.
- 2. minimal access to individual lots.

The following streets should be designated as collector roadways in Freedom Township:

- 1. Waters Road.
- 2. Bethel Church Road.
- 3. Lima Center Road.
- 4. Ernst Road.

Local Roadways

The primary function of local roadways is to provide access to abutting properties. Local roadways are intended to primarily serve local traffic, rather than regional or through traffic. Such streets may be private; however, rights-of-way should be adequate to conform to Washtenaw County Road Commission standards. The following standards should be established for local roadways:

- 1. 2 lanes paved in new developments;
- 2. 2 lanes gravel in rural areas; and
- 3. 2 lanes gravel in very low density residential developments with private roads.

Special Corridors

Special corridors are roadways that have a recognized scenic or historic character that should be protected, and other roadways, such as Township entrances, that require special treatment.

1. Policies

- a. The character of special corridors shall be protected during maintenance. Special corridors shall not be improved, unless necessary, and any such improvements shall not alter the character of the special corridor.
- b. Preservation of the natural landscape shall be encouraged along these roadways.

Road Systems For New Development

1. Access

- a. The number of curb cuts to primary streets shall be minimized.
- b. Joint drives or frontage roads shall be required, where feasible, to reduce the number of curb cuts.
- c. Access patterns should be designed to encourage placement of buildings to face primary and collector streets.

Residential Road System

1. Plans for new development should provide for extension of roadways into new development areas where such extension is determined by the Township to be necessary for the continuity of the public streets system or to provide adequate vehicular access to interior lands.
2. Residential areas should be interconnected by public streets. Residential developments that are intended to be isolated from the rest of the community by a system of private streets and absence of street connections with adjacent parcels should be discouraged.
3. Access to new development shall be from existing paved roads wherever feasible.
4. Private roadways should be discouraged. Roadways within new developments shall meet appropriate Washtenaw county Road Commission standards and specifications.

The following are emphasized regarding circulation within Freedom Township:

- A. Streets in new urban developments should be paved in order to reduce long-term maintenance costs.
- B. Residential areas should be interconnected by public streets. Such streets should meet the standards and specifications of the Washtenaw County Road Commission, except when part of a large development, such as a Planned Community Development, in which case other standards and specifications might be considered.

EXTRACTION OPERATIONS

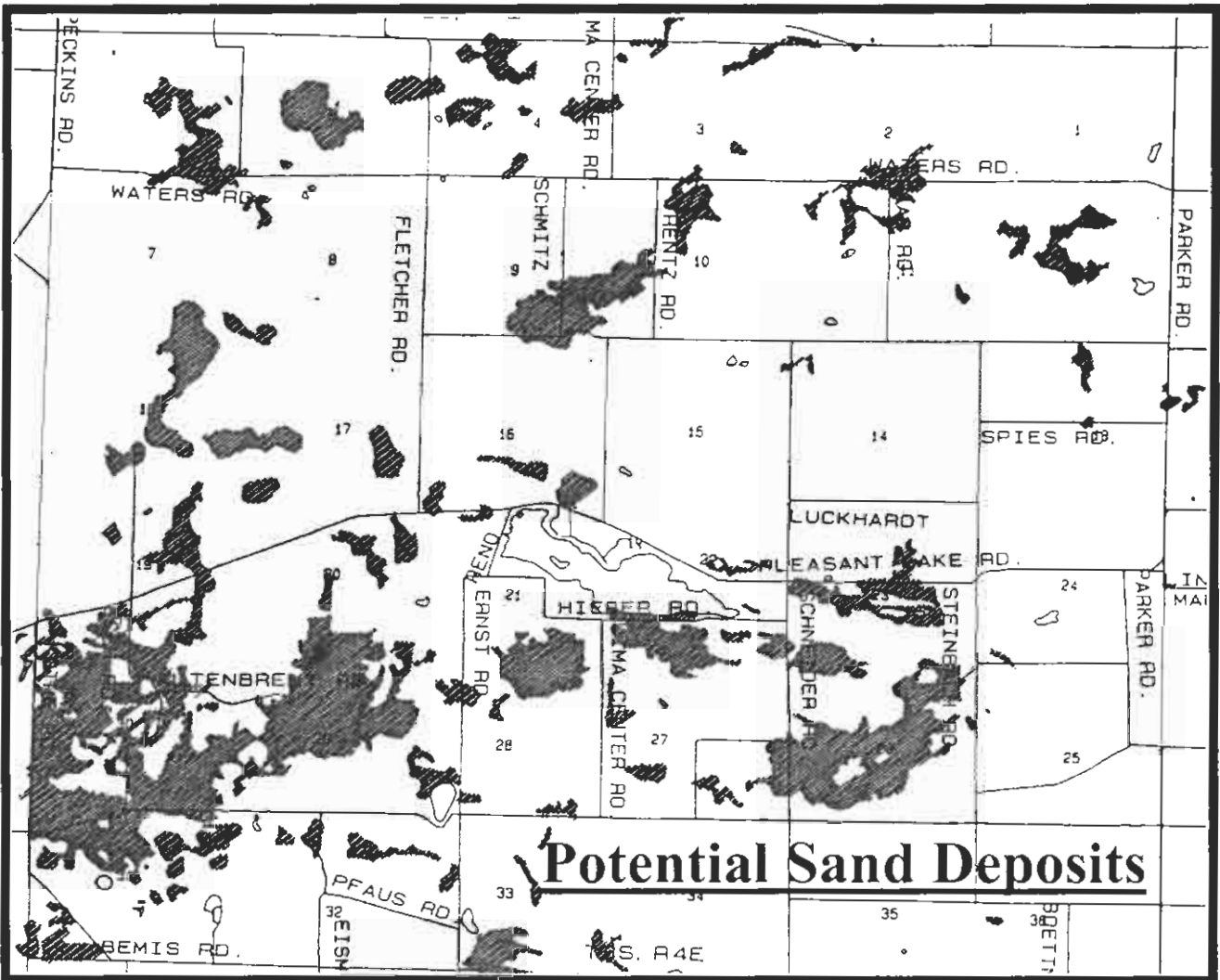
GOAL:

Control the extraction of sand and gravel resources within Freedom Township to ensure that they do not disrupt the environment, impair the water supplies, cause noise nuisances, dust nuisances, damage the roads and create conditions that are dangerous to Township residents.

Freedom Township contains significant deposits of sand and gravel. Major extraction companies are currently mining sand and gravel from several sites within the Township. More than 1,200 acres or acreage in excess of 5% of the total Township acreage are owned by extraction companies within Freedom Township. Approximately 25% of this area has been or is currently being mined. Currently over 2,000,000 tons are mined annually. During the building seasons, this can account for roughly 500 truck trips using roadways within Freedom Township on a given day.

A previous chart within this GMP depicted land use acreage in 1995 for Freedom Township. As seen within that land use chart 9 % of Freedom Township was utilized for extraction purposes in 1995.

It is recognized that sand, gravel and other earthen deposits within the Township's land area are nonrenewable natural



resources necessary and beneficial to the welfare of its inhabitants and the surrounding regional area. The Growth Management Plan attempts to provide for the utilization of these resources in a manner compatible with nearby residential areas, to protect human health and the environment, and to insure complete restoration for another land use at the conclusion of the extraction. The Growth Management Plan addresses these resources because mining operations and the related activities can cause unique and substantial impacts upon the environment and the welfare of adjacent properties and the community. Environmental goals and policies contained within the Growth Management Plan are directed toward preserving the natural environment and ensuring proper use of surface and ground water supplies. Secondary impacts of extraction operations including noise nuisances, dust nuisances, damage to roads, increased truck traffic, and other conditions that are hazardous to Township residents are also of concern and are addressed by the Freedom Township Mining Ordinance.

To ensure that mining activities and associated off-site impacts are not out of proportion and within prospective as they relate to existing residents, natural resources, and other land uses taking place within Freedom Township, the following policies are set forth:

- A. Only Class "A" roadways will be utilized by gravel trucks to haul mined materials out of Freedom Township.
- B. Only the paved portions of Pleasant Lake Road, Fletcher Road, Steinbach Road, and Parker Road may be used for commercial hauling of extraction materials within Freedom Township.
- C. All land to be utilized for extraction purposes shall have a permit as required within the Township's Extraction Ordinance. Due to the various impacts of trucks that haul commercial extraction materials on the Township's roadways, removal of extraction materials from approved extraction operations may be allowed at the rate of one truck per two acres per day of land which has been approved for such extraction purposes. At no time shall any approved extraction operation exceed 350 trucks per day for hauling extraction materials on the Township's roadways.
- D. No more than 700 acres of cumulative active extractions shall be allowed to operate within a given season within Freedom Township.
- E. No more than 3,000,000 tons of cumulative extraction materials shall be mined within any given year within Freedom Township.
- F. At no time shall more than 3 % of total Township acreage be designated or used for extraction purposes.

IMPLEMENTATION

The Growth Management Plan serves as a framework for future decision-making and a regulatory process through which governmental agencies guide land use. The Plan should be re-evaluated every five (5) years or as development pressures require. As time goes on, Township objectives may change which could result in an amendment to the adopted GMP. Any amendment should only be made after sound evaluation of the overall implications have been considered. Further, re-evaluation of the Plan allows future participation of the general public in framing Township policy. An informed public can greatly assist in the direction of Township Officials towards an improved and meaningful future environmental quality.

Implementation of the Plan requires continuous coordination between the Township Board, the Planning Commission, and the Zoning Board of Appeals whose principal tools are the Zoning Ordinance and Map and Subdivision and Site Condominium Regulations. In addition, the Township must also remain abreast of on-going planning activities of adjoining units of government which may affect Plan recommendations for future implementation.

Zoning Ordinance

A zoning ordinance is a legal statement of regulations which governs private land use and development. As established under Act 184 of the Public Acts of 1943, as amended, this document is designed to promote the public health, safety and general welfare and to encourage the use of resources in accordance with their character and adaptability. The zoning ordinance should follow the long-range land use policy established in the Growth Management Plan.

Subdivision Regulation Ordinance

A subdivision ordinance sets forth specific regulations which apply to all proposed private land development. This ordinance has a legal basis pursuant to the statutory authority granted under the Township Planning Commission Act, Act 168 of 1959, as amended, and the Land Division Act, MCL 560.101, et seq., as amended. Under this ordinance the Township regulates the preparation and presentation of preliminary and final plats and establishes minimum subdivision standards. Through such an ordinance, the Township can better control the design and character of future development.