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## AVON TOWNSHIP COMPREHENSIVE PLAN 1989 - 2020

### I. INTRODUCTION

#### **Statement of Repeal**

The repeal of the Avon Township Comprehensive Plan (ATCP) is important for several reasons. Although the ATCP was adopted on the 5th day of August, 1981, recent cultural, environmental, and economic stress on the rural heritage of Avon Township requires a new direction. Therefore, the 1981 Avon Township Comprehensive Plan is hereby repealed.

#### **New Comprehensive Planning**

The general mission of developing a new comprehensive plan for Avon Township was to enhance the spirit of the community, enrich the natural resource base, and preserve the family farm heritage. The implementation of the comprehensive plan was designed with a 30 year vision but the spirit of the comprehensive plan was designed in consideration for our grandchildren who will inherit the land. Status quo "business as usual" policies are obsolete based on new environmental, social, and economic concerns facing rural townships in central Minnesota.

The rural family farm heritage cannot be sustained with measures that simply block other development interests. The best mechanism to sustain the rural agricultural heritage is to sustain the soil base. Soil conservation is a critical

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requirement to enhance the spirit of the community, enrich the natural resources, and preserve cultural heritage.

The participation and energy required to implement this comprehensive plan is positive in nature. If recommendations in the plan are implemented, Avon Township would be a showcase and a leading example for other townships, Stearns County, Central Minnesota, and the entire State of Minnesota.

Long range comprehensive insight is required by Township people. Personal vested interest must be set aside for the interests of the Township as a whole. Land stewardship is the ultimate goal of this comprehensive plan. Properly managed natural resources are the foundation for a healthy community. A balance between culture, the natural environment, and economic factors enhance the possibility of enhancing the entire Township. Agriculture, housing, industry, education, recreation, and conservation blend harmoniously together to form the comprehensive vision of Avon Township.

It is with this vision that The Town Board of Supervisors hereby adopt the Avon Township Comprehensive Plan 1989-2020 on this 1st day of Feb, 1989.

Waynard Sand  
Waynard Sand - Chairman

Daniel Boom  
Daniel Boom - Supervisor

Leo Gondringer  
Leo Gondringer - Supervisor

Attest:

Kenneth Eiyk  
Kenneth Eiyk - Clerk

## **Neighbors**

The comprehensive plan requires the understanding that this predominately rural township is not an island unto itself. Inputs from outside the Township are necessary to sustain and enhance cultural diversity, basic human needs, and regional harmony. Avon Township neighbors include Holding Township to the north; St. Wendel Township to the East, Collegeville Township to the south, and Albany Township to the West. The City of Avon, within the borders of the Township, is another neighbor of Avon Township. The neighboring townships are primarily agricultural areas.

St. Cloud, located southeast of Avon Township, provides the Avon Township with many of the commercial outlets that are not feasible for a small rural township to develop.

## **Founding History**

The founding history of Avon Township is rich. The Township of Avon was originally established in 1866 as a split from a larger tract known as Brockway Township. The Township of Albany was then split off from Avon Township in 1868 leaving Avon Township as its present size of 23,040 acres. The Township contains 36 sections, or 36 square miles. Some of the earliest settlers, beginning in 1856, included James

Tanner who settled where the City of Avon presently stands.

John Barret settled in section 12 in 1859. Other early settlers were Peter Gothard, Nicholas Theisen, Andrew Agthman, John Knoblach, Matthew Solinger, and Nicholas, John, and Nicholas S. Keppers. The first elections were held at the Nicholas S. Keppers residence. Officers elected were as follows: Supervisors; Nicholas S. Keppers (Chairman), Isidore Obermiller, and Paul Obermiller (Clerk), John Brakefield (Treasurer), Nicholas S. Keppers (Justice of the Peace), William Murphy and John Schinghamer (Assessor). The Township was divided into several districts and the first school was taught by Mary Sutrup in 1870 in N. S. Kepper's home.

## II. DEMOGRAPHICS

The following three tables provide a look at the past, present, and future population characteristics of Avon Township. An examination of the population growth reveals that the township grew 66% from 1930 to 1987. According to St. Cloud Area Planning, the current population growth rate is 1.7% per year. At this rate, the population will reach 2434 by the year 2000, and in 25 years, the population will be 3030.

There have been a number of population shifts. The most dramatic shift is the 53.1% increase between 1960 and 1970.

The population age characteristics reveal that the age groups of 18 to 64, and 65 and older have been increasing even during years of population decline, while the under 18 age group has declined. The median age of the Township is 24.2. Factors that influence this are the decline in farms, and the trend in society to smaller families. At the same time medical technology is extending the average lifespan.

The next census is currently being completed. It would be beneficial for the Township to obtain the pertinent information from it and amend this comprehensive plan. This should be done on a regular basis when census information is available. This will aid the governing members of the Township in determining land use planning for the future.



POPULATION GROWTH

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>
1930	1180	
1940	1233	4.5
1950	1178	-4.5
1960	1229	4.3
1970	1882	53.1
1980	1737	- 7.7
1981	1833	5.5
1987	1955	6.7
2000	2434	
2013	3030	

Source: U.S. Census  
St. Cloud Area Planning

POPULATION GENDER CHARACTERISTICS

<u>Year</u>	<u>Male</u>	<u>%Change</u>	<u>Female</u>	<u>%Change</u>
1940	628		605	
1960	650	3.5	579	-4.2
1970	991	52.0	891	54.0
1980	881	-11.1	856	-3.9

Source: U.S. Census

POPULATION AGE CHARACTERISTICS

<u>Year</u>	<u>Under 18</u>	<u>18 through 64</u>	<u>65 and older</u>	<u>Median age</u>
1940	554	622	84	
1960	509	626	94	
1970	834	909	139	21.4
1980	676	916	145	24.2

Source: U.S. Census

In viewing the housing characteristics table, it is apparent that the number of houses in the Township have been steadily increasing. The reason for this is that there are currently 36 subdivision plat maps registered with the

Township that have not been completely developed yet. The other contributing factor is the trend for people that work in the St. Cloud area to settle in the Avon region.

#### HOUSING CHARACTERISTICS

<u>Year</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1987</u>
Total Units	303	451	590	681
Single Family Units			505	522
Rental Units			55	50
Seasonal Units			30	109
Median value (dollars)			49,600	
Platted, but vacant lots				228

Source: U.S. Census  
 St. Cloud Area Planning  
 Emergeny 911 listings for Stearns County

#### ECONOMY

Traditionally, the major source of employment was in agriculture or agricultural related services. The commercial and industrial businesses were located in the city of Avon.

Due to the population increase that is occuring in the area, businesses are being established in the Township and there will be pressure for this to continue. Currently there is a small commercial district in St. Anna. There are also small businesses operating throughout the Township including road construction, ballrooms, tool and die production, horse breeding, farm services and used car sales.

In addition, there is a trend developing in which the people that move into the Township work outside the Township. The per capita income rose from \$5,033 in 1979 to \$5,924 in 1981.

### III. NATURAL RESOURCES

The natural resources of an area play a vital role in determining the type of life that will be sustainable in the area. Prior to making recommendations on land use, it is important that the resources available in the region be identified.

#### CLIMATE

Avon Township, like the rest of Stearns County, has a subhumid to humid climate with typically cold winters and mild to hot summers with occasional cool spells. The average daily minimum temperature in winter is 5 degrees with the average daily maximum temperature in summer being 79 degrees. The sun shines 65% of the time possible in the summer and 40% of the time possible in the winter.

Of the total annual precipitation 75% or 21 inches falls during the summer growing season (April to September). Average snowfall is about 48 inches. Tornadoes, severe thunderstorms and hail occur in narrow bands of short duration during the warmer time of the year. This information was obtained from data compiled by the Collegeville weather station.

The following is a table of the climatic information as it pertains to Avon Township. The information was obtained from the Collegeville weather station and the St. Cloud

weather station.

### CLIMATIC DATA

	Ave. Temp	Ave. Percip	Ave. Wind MPH	Normal Heating Degree Days	Normal Cooling Degree Days	Average Growing Degree Days
Jan	9.9	0.95	8.2	1739	0	0
Feb	15.1	0.88	7.8	1448	0	0
Mar	26.3	1.47	9.0	1212	0	10
Apr	43.2	2.35	9.8	663	0	35
May	56.8	3.64	8.9	324	14	234
Jun	66.2	4.47	8.2	85	79	486
Jul	71.1	3.00	7.0	18	179	654
Aug	69.1	4.44	6.4	37	142	592
Sep	58.8	2.84	7.1	228	12	271
Oct	49.1	2.02	7.8	539	0	113
Nov	31.6	1.31	8.3	1050	0	0
Dec	17.1	0.92	7.7	1525	0	0

A heating degree day is calculated from the day's average temperature (maximum plus minimum divided by two). Each degree that the day's average is below 65 degrees is counted as one heating degree day. Each degree the average is over 65 degrees is counted as one cooling degree day. These are important statistics in the analysis of the energy requirements necessary to maintain a comfort level of 65 degrees.

A growing degree day is calculated in a similar way. The average daily temperature is calculated and then the temperature below which growth of the principle crops is minimum (50 degrees), is subtracted. The growing degree day is a unit of heat available for plant growth. This is used to schedule single or successive plantings of a crop between

the last freeze of spring and the first freeze of fall.

## GEOLOGY

The make up of the earth's crust in Avon Township consists of a bedrock of igneous rock, argillite and grawacke. The next layer is the glacial till. This material was deposited by glaciers that once covered the area. Most recently, this area was covered by the Rainy Lobe during the Wisconsin glaciation.

The end moraine left by the Rainy Lobe is the St. Croix moraine. Most of this till is sandy loam. The soils that typically form in this till belong mainly to the Cushing, Alstad, DeMontreville, Mahtomedi, and Jewett series.

In the Township, the St. Croix moraine spawned the formation of two soil associations. A soil association consists of one or more major soils, for which it is named, and some minor ones. The soils making up one association can and do occur in other associations. The soil associations of large tracts of land can be used to determine the suitability of the land for general land use. Soil associations are not suitable for the planning and management of small tracts of land.

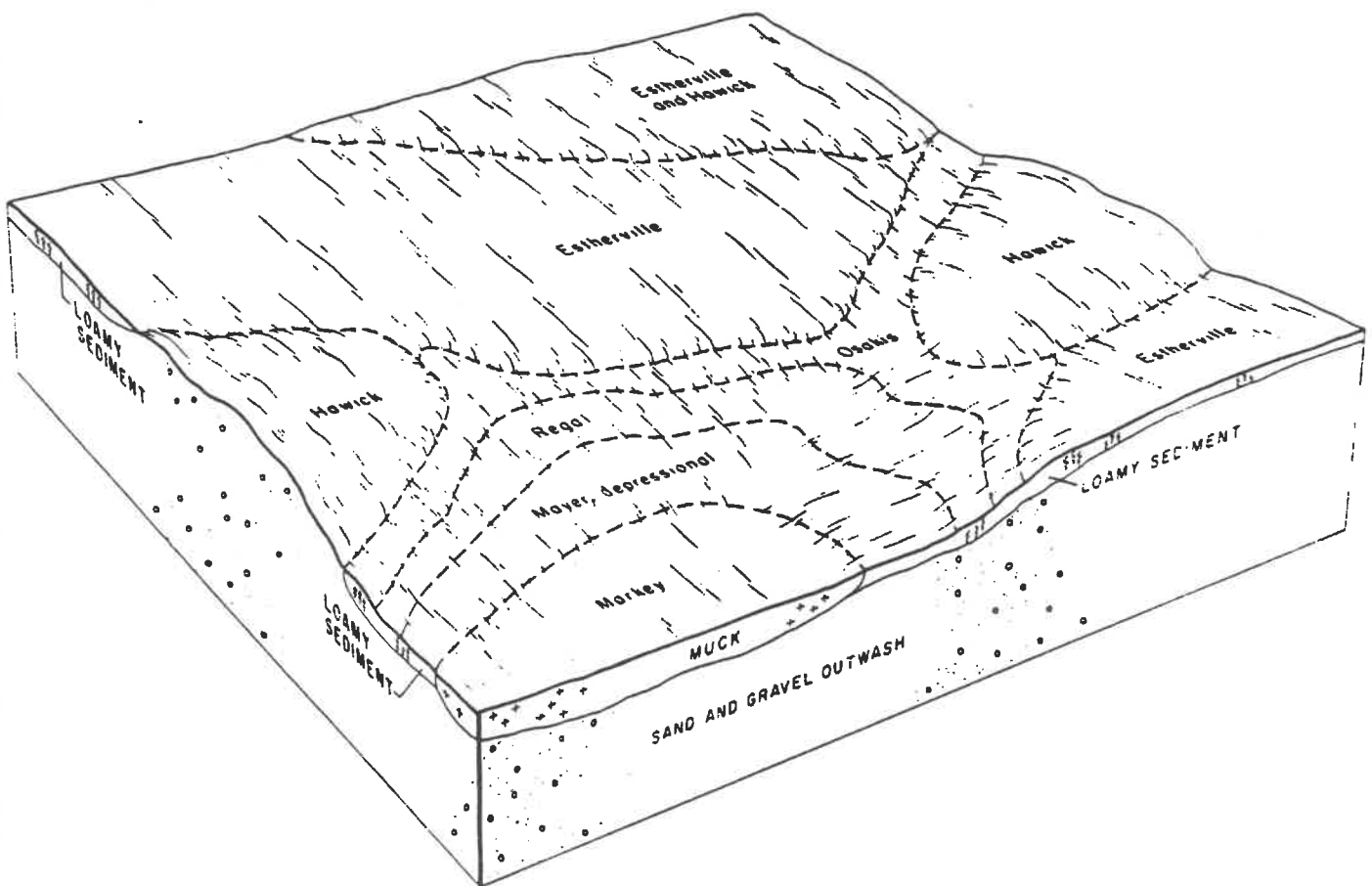
The two soil associations covering the Township are the Estherville-Hawick association and the Cushing-Mahtomedi association. According to the Soil Survey of Stearns County Minnesota the Estherville-Hawick association is described as follows:

Nearly level to very steep, somewhat drained and excessively drained, moderately coarse textured and coarse textured soils on outwash plains and stream terraces.

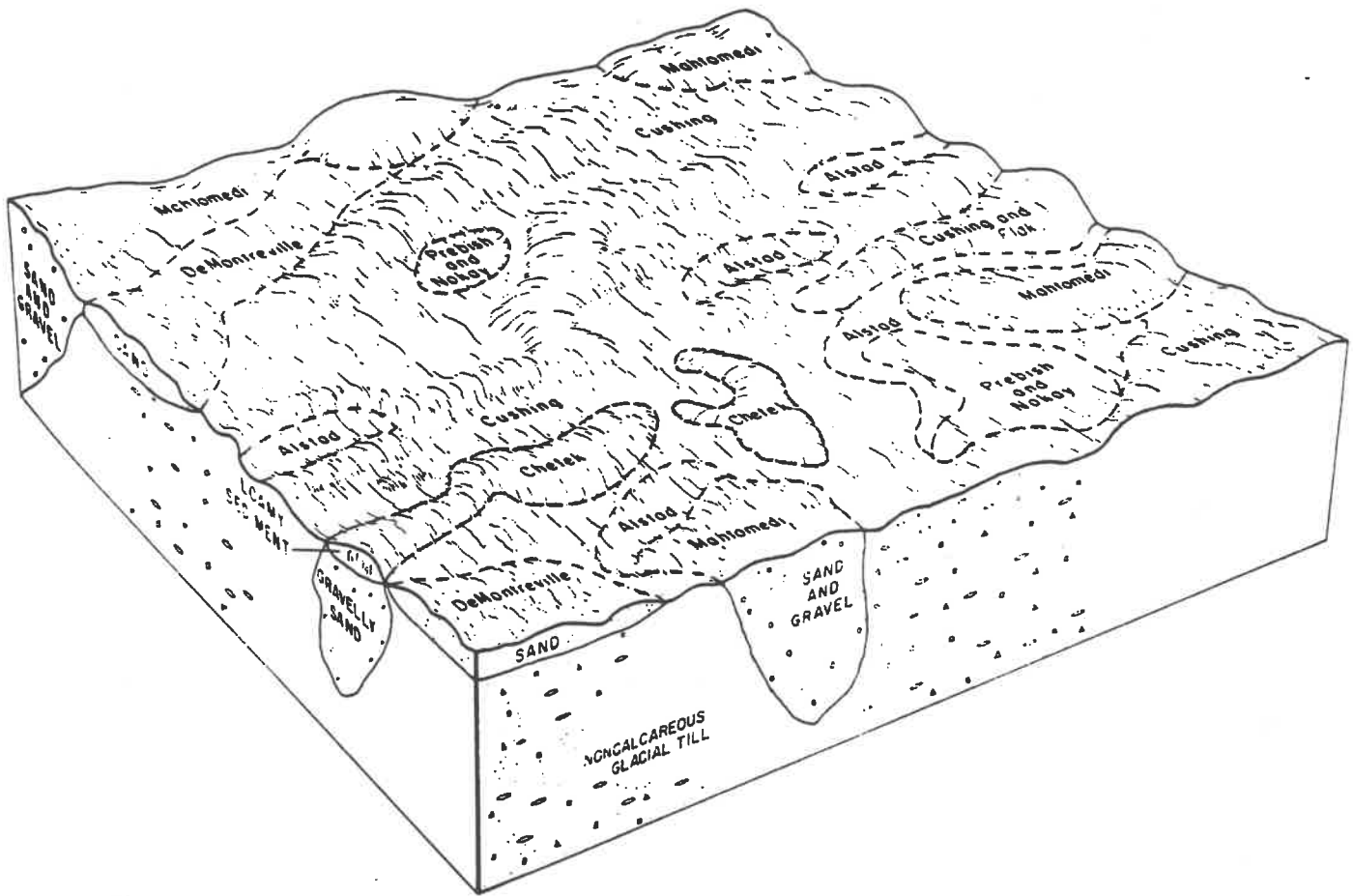
The Cushing-Mahtomedi association is described as follows:

Undulating to very steep, well drained and excessively drained, moderately coarse textured and coarse textured soils on uplands.

The following diagrams, obtained from the Stearns County Soil Survey, show the pattern of soils and underlying material in the two soil associations.



-Pattern of soils and underlying material in the Estherville-Hawick association.



—Pattern of soils and underlying material in the Cushing-Mahtomedi association.



### TOPOGRAPHY

The elevation of the Township ranges from 1110 feet above sea level to 1385 feet above sea level. The lowest areas are in the northeastern area of the township, while the high areas occur in the southern portion of the Township. It is this lay of the land that causes the water of the Spunk lakes and any runoff to flow northeast. This has resulted in the unusual phenomena of the Spunk creek flowing north. The creek eventually flows into the Mississippi. The land to the north of I-94 is typically level with gently rolling slopes. The land to the south of I-94 is comprised of hills with steep slopes and valleys. There are few level areas.

### VEGETATION

The original vegetation in Stearns County was medium and tall prairie grasses and hardwood forests. The eastern portion of the county, in which Avon is located, was primarily forested by deciduous trees. There were small pockets of prairie grass within the forest.

Of the total area that comprises Avon Township, approximately 18% of it remains moderately to heavily wooded (see map on inside of back cover). Of the 56,000 acres of commercial forest land in Stearns County, 7.4% is located in Avon Township. The forests are predominantly northern red oak, white oak, and bur oak. Also found are aspen, elm, ash, birch, hard maple, soft maple, wild cherry, cottonwood, basswood, and willow.

According to the Stearns County soil survey, this area is poor to very poor for supporting wetland plants. The same survey states that this area is fair to good for grain, grasses, wild herbaceous plants, hardwoods and conifers.

### WILDLIFE

The wildlife found in the area include several species of migratory waterfowl including ducks, geese, great blue herons and loons. The Pelican lake area is designated as a loon habitat area by the DNR. Found throughout the area are grouse, pheasant, rabbits, squirrels, fox, skunk, woodchuck and deer. Also found in the area are numerous species of small migratory song birds.

The lakes in the area contain many fish species including; walleye, northern pike, small and large mouth bass, crappie, sunfish, perch and bullhead.

The Stearns County soil survey indicates that this area is poor to very poor for supporting wetland wildlife and fair to good for supporting open land and woodland wildlife.

### WATER RESOURCES

One of the most attractive features of the township is the surface water. There are 15 lakes that are either completely or partially in the Township (see map on inside of back cover). The lakes that are located within the township are; Upper Spunk Lake, Middle Spunk Lake, Lower Spunk Lake, Minnie Lake, Linneman Lake, Achman Lake, Anna Lake, Kepper

Lake, Ochotto Lake, Little Pelican Lake, Little Pine Lake and Pelican Lake. The following lakes are located partially within the township: Pine Lake, Two Rivers Lake, and Sand Lake. The total surface area of the lakes in the township equal approximately 2037 acres or 8.8% of the surface area of the Township.

Surface water and runoff drain primarily into Spunk Creek, which flows north out of the Township and eventually into the Mississippi. Water also drains from the township via the Watab River located in the southeast corner and two county drainage ditches located along the east edge of the Township.

All lakes and rivers within the Township are classified in accordance with the 1969 Minnesota Shoreland Management Act. The three classifications of lakes are; general development, recreational development, and natural environment. In addition to the Minnesota Shoreland Management Act, the lakes and waterways in the area developed in accordance with the Stearns County Shoreland Management Act and the Stearns County Floodplain Act.

There is an abundance of ground water in the area. U.S. Geological Ground Water Resources open file plate number 4, 8-1285 identifies four main aquifers in the area. In the northwest, there is a 500 gallon per minute aquifer with a larger one surrounding that will provide 100 gallons per minute. In the southeast portion of the Township there is a

aquafer that produces 100 gallons per minute which is surrounded by a larger aquafer capable of 50 gallons per minute. The protection of these water supplies is essential to the way of life in the Township.

#### ATMOSPHERE

Due to the lack of a significant amount of heavy industry, the quality of air in the Township is generally regarded as good. However, it is becoming more apparent that a good deal of air pollution is generated in our homes, farms and businesses. The effects of this indoor air pollution are just now starting to be studied. Examples are radon, herbicide and pesticide drift, and secondary smoke inhalation. Though, as of yet, there are no figures as to the extent of these problems for the area, it is important that they are recognized and dealt with.

IV. COMMUNITY SERVICES (Public and Private)

GOVERNMENT

The Township is governed by the Avon Township Board. The board is comprised of five elected officials. There are three supervisors, one clerk and one treasurer.

To assist the Avon Township Board, members of the community are appointed to the Avon Township Planning Board. This board is comprised of five members.

EDUCATION

The Township is serviced by three school districts. The majority of the township falls within the Albany school district (no. 745). There is an elementary school located in the City of Avon. The Albany district serves approximately 21 sections of the Township. The Holdingford district (no. 738) serves approximately 12 sections in the Township. These sections are located along the north edge of the Township. There is an elementary school located in St. Anna. Approximately three sections in the southeast are served by the St. Cloud district (742).

NATURAL GAS

Natural gas is currently being installed in the City of Avon area by Minnegasco. Natural gas is only available

within the city limits. It is possible that as developments in the Township grow larger, a line will be run to them.

According to Darrel Rosenow, Account Executive for new towns, the decision to install in these areas will be determined by personal contacts revealing how many people in the area want it. In new subdivisions, the developer has the option of having the gas line run to it. The lot prices would then be increased.

The line itself starts in Waite Park, where it hooks up with a transmission line owned by Northern. This transmission line transports gas from the fields in Texas and Louisiana. The line runs up the north side of I-94 to Cty. Rd. 159. It then goes south to St. John's University. It also continues west from Cty. Rd. 159 along the south side of I-94 up to Avon.

Though at the present time there are not enough residents around Upper Spunk Lake interested in having gas installed, a hook up valve was installed so that when the number of residents wanting natural gas increases, a line can quickly be installed.

### ELECTRICITY

Electricity is available throughout the Township. It is provided by Northern States Power (NSP) and Stearns Cooperative Electric Association.

**NSP DATA**

The current rates for electricity are 5.72 cents per KWH for the months of October to May and 6.53 cents per KWH for the months of June to September. The reason for the difference is that NSP is a summer peaking company.

**Stearns Cooperative Electric Association Data**

The rates currently consist of a \$7.25 fixed monthly charge and 6.9 cents per KWH.

**LP GAS**

Though there are no LP gas distributors located in the Township, there are numerous distributors in St. Cloud and the surrounding area that service Avon Township.

**FUEL OIL**

Fuel oil is available from businesses in the City of Avon and elsewhere. The prices generally are as follows:

#1 79.99 cents per gallon

#2 70.99 cents per gallon

Some of the outlets offer discounts for fuel purchased with cash.

**WOOD**

A visual survey was conducted in effort to determine how many dwellings presently obtain some portion of their heat

from wood. The results of the count indicate that approximately 37% of the homes use wood for some portion of heat. This is slightly above the 33% average for the state that was determined by the U.S. Energy Information Administration which published two reports titled Estimates of U.S. Wood Energy Consumption.

When proper harvesting techniques such as selective cutting and gathering downed wood are utilized, a one acre lot can provide one cord of wood per year indefinitely.

#### SOLAR & WIND ENERGY

The use of solar and wind energy systems have been demonstrated to be an effective means of obtaining energy by homeowners throughout central Minnesota. The systems can be passive or active and provide energy for space heating, hot water and electricity.

#### SEWER AND WATER

Avon Township has no central sewage system. Anaerobic septic systems are used for the disposal of sewage throughout the township. The minimum size for a three bedroom home is 1,000 gallons, with a minimum size drainfield for sandy soil of 300 square feet. If the drainfield is clay, it must be larger.

The Township has no central water systems. There are many aquifers throughout the Township. The water used is pumped from private wells with an average depth of 30 to 60



feet.

#### MUNICIPAL SOLID WASTE (MSW)

According to a 1985 study by Stearns County, the City of Avon generates 1.3 tons of MSW per day. The Township generates 3.5 tons per day. Currently, the MSW in the Township is picked up and hauled to a landfill. The MSW is currently hauled to a landfill in Melrose.

There is no recycling center or program operating in the Avon area. There are no landfills presently located in the Township, however, the Tri-County Solid Waste Commission is considering a tract of land in section 17 as a potential future landfill.

There is not a hazardous waste classification or disposal system for household hazardous waste, industrial hazardous waste or agricultural hazardous waste.

#### PUBLIC SAFETY

Avon Township has no police force. They are serviced by the Stearns County Sheriff's Department. The city itself has two fulltime police officers and three part time officers. The part time officers are used mainly for extra security at large events.

The Township is hooked up with the 911 emergency system which has been installed County wide. This process assigned names to the roads. It also assigned a number address to all houses and platted lots. Maps with a grid have been

established for each township. This facilitates the locating of a home for emergency response.

The City of Avon has two full time fire department officers, and 23 on call officers who respond to fires both within the City of Avon and within Avon Township. The department has an ongoing training program that all officers must attend. Avon Township pays a fee to Avon City for this service.

## TRANSPORTATION

### ROADS

The Township is located northwest of St. Cloud on the I-94 interstate system. The interstate travels east to west in the southern half of the Township. The interstate covers approximately seven miles of the Township.

There are approximately 30 miles of county and county state aid roads that are paved and maintained by Stearns county. These roads are; Cty Rd. 3, 9, 50, 52, 54, 154, 155, 156, and 159 (see map on following page).

The Township has and maintains approximately 44 miles of roads. The majority of these roads are gravel. Approximately 15 % of are paved. The Township is trying to pave a small section every year. Currently the road fund portion of the annual budget is the largest expenditure for the Township with annual costs running over \$130,000. The last stretch of road that was paved cost \$30,000 per mile for two inches of black top. This did not include preparing the gravel road for surfacing.

An economic feasibility study should be conducted into alternative road maintainence methods.

### RAILROAD

The Avon area is serviced by Ottertail Railroad, which is headquartered in Fergus Falls. They own the old

Burlington Northern line that runs from Moorhead to Avon. Burlington Northern still owns the line up to Collegeville. Ottertail railroad has an interchange in Dilworth, just east of Moorhead, with Burlington Northern. They make two runs per week to Avon on Tuesday and Thursday. The only regular customer they have is Avon Lumber.

### OTHER

There is no public transportation system in the Avon area. There is one private airplane landing strip in the Township.

The county roads in the area are in good condition and offer an excellent surface for bicycle transportation.

### RECREATION

Stearns County provides two public boat landings, one on Pelican Lake and the other on Upper Spunk Lake. The County also maintains a seven acre park on Upper Spunk Lake. This park is located one and a half miles south of the City of Avon on County Rd. 9. The site provides an area for shoreline fishing and picnics. This land was donated by D.H. Blattner and Sons of Avon.

## V. LAND USE

Land use is the critical factor in determining whether a rural township will fully develop its unique cultural potential. Meaningful work, healthy natural resources, and creative actualizing freedoms may all be realized through wholistic comprehensive planning. Comprehensive, by its very nature, is setting aside short term vested interests, for the long term good of the township. Although it is difficult to set aside individual interests, the long term future of the township is dependent on a comprehensive vision. Our grandchildren will be the true historians to assess whether the Township had this necessary comprehensive vision.

Status quo, or business as usual, will not work in a complex region that is rapidly changing. Status quo policy will insure long term failure based on the current environmental and social stresses facing our Township. Habits that have developed over a lifetime are difficult to break. Change is like a double edged sword; it cuts through the thick security blanket leaving us chilly and uneasy. However, the same sword can cut a new path that leads to new and enriched spices. Change requires direction. Haphazard change, that benefits a few persons, usually is destructive to the township as a whole. Change that follows a long term vision is appropriate change. It allows the Township to grow

in a sustainable manner. Our grandchildren may reap the long term economic advantages of our land stewardship vision, but even more importantly they will be able to carry our rich spiritual and cultural heritage to their grandchildren.

The Land Use section of the Comprehensive Plan balances cultural, environmental and economic factors in a symbiotic manner. Agriculture, housing, industry, education, recreation and conservation blend harmoniously together to form the land stewardship vision that's critical to the long term health of Avon Township (see map on inside of back cover).

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AGRICULTURE

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**Goals**

The long range goal of agriculture in the Avon Township is to increase the stability and sustainability of the family farm in an environmentally sound manner. The following goals are designed to allow the family farm heritage of Avon Township to continue.

1. Preserve prime agricultural land for farming purposes.
2. Increase the use of soil conservation techniques and organic farming methods.
3. Encourage agricultural pollution controls to prevent agricultural runoff from polluting surface and groundwater supplies and adopt controls for the safe use of pesticides and petrochemical fertilizers.
4. Diversify agricultural products grown in the Township.
5. Diversify local and regional markets.

6. Increase the use of less expensive, more labor intensive farm equipment.
7. Encourage alternative methods to transfer family farms from one generation to another generation.
8. Explore the development of a resource, experimentation and education farm in the Township that operates under the mission of sustaining the family farm.

#### **Goal 1 Rationale**

Preservation of prime agricultural land for farming purposes is important for economic reasons. Prime agricultural land is the most productive and provides the Township with direct and indirect economic stability. Direct economic stability is related to income generated from the sales of agricultural products. Indirect economic stability is related to the money that is generated by farming but spent for other goods and services within Avon Township and the City of Avon.

#### **Goal 1 Recommendations**

Goal 1 Restated: Preserve prime agricultural land for farming purposes.



Adopt zoning ordinances to preserve prime agricultural land for farming purposes as defined in Soil Survey of Stearns County Minnesota and the Stearns County Soil and Water Conservation District (SWCD) and the Soil Conservation Service (SCS).

Apply to have a detailed LESA (Land Evaluation Soil Assessment) study conducted in the Avon Township by the SWCD and SCS. Have this study conducted during winter-spring of 1989. Use the results to identify prime agricultural land.

#### **Goal 2 Rationale**

Increase the use of soil conservation techniques and organic farming methods. Soil conservation techniques insure a healthy soil base needed for agricultural purposes to sustain many generations of farm use. Topsoil in Avon Township has been eroded over the past 100 years by wind, water, and farming practices, resulting in dangerously thin layers. Soil conservation practices matched with organic farming techniques provides sustainability and increases reliance on local natural fertilizers. The shift to soil conservation and organic farming also decreases the economic dependence on petrochemical based products.

## Goal 2 Recommendations

Goal 2 Restated: Increase the use of soil conservation techniques and organic farming methods.

Encourage conservation practices be implemented by new farmers who purchase agricultural land. Soil conservation recommendations are site specific and are assessed by the Stearns County Soil and Water Conservation District (SWCD) and the Soil Conservation Service (SCS).

Encourage a ten year time period that allows current farmers adequate time to adopt soil conservation practices as outlined by the SWCD and the SCS.

Experiment with organic farming techniques at the resource, experimentation and education farm.

Encourage a thirty year time period that allows current farmers adequate time to adopt soil conservation organic farming techniques in a step by step manner. Agricultural land must be allowed substantial transition time. A policy in which farmers set aside approximately 5% of their productive agricultural land each year for soil conservation organic farming purposes is recommended. Soil conservation techniques defined by the SWCD and organic farming methods

should be adopted.

### Goal 3 Rationale

In 1960 72% of the corn acreage harvested in Minnesota, was treated for weed control, while in 1984 97% of the corn acreage harvested was treated for weed control (The Minnesota Crop and Livestock Reporting Service). Nitrogen fertilizer use increased from 50,000 tons in 1960 to 850,000 tons in 1985 in Minnesota (Minnesota Department of Agriculture). These chemicals are currently being detected in surface and ground waters, posing a potential threat to the use and health of our water resources. Cancer, birth defects and chronic health problems have been attributed to the pesticides found in groundwater supplies. Chemical fertilizers have increased nitrate levels found in drinking water. Nitrate in drinking water can cause methemoglobinemia or "blue baby syndrome" in infants, and other human and livestock health effects. Phosphorus can lead to increased algae populations and weed growth in surface waters affecting aquatic species. Nineteen different pesticides have been detected in ground waters in 24 states tested by the U.S. Environmental Protection Agency in 1986. Minnesota, Iowa, and Wisconsin were identified as states in which pesticides have been found in ground water. The shallow outwash sand and gravel aquifers in central Minnesota were identified as hydrogeologically vulnerable to contamination.

Minnesota Department of Health found that 42% of 199 private drinking wells tested and 7.1% of 395 public water supply wells had nitrate concentrations in excess of drinking water standards (10 ppm). The Minnesota Pollution Control Authority (MPCA) and United State Geological Service (USGS) studied ground water quality in surficial sand aquifers in limited, moderate and intense agricultural counties.

Analysis indicated elevated levels of nitrate in the moderate and intense agricultural areas, as compared to the limited agricultural areas.

The adoption of agricultural pollution controls to prevent agricultural runoff from polluting surface and groundwater supplies is necessary if humans and farm animals are to have safe drinking water. Safe drinking water, once taken for granted, is becoming a scarce resource. According to a 1987 study titled Understanding Nitrogen and Agricultural Chemicals in the Environment, surface water and groundwaters of Minnesota are becoming dangerously polluted. Poor agricultural practices contribute to groundwater and surface water pollution. Groundwater has been found to be polluted with nitrates and other contaminants. Pesticides and other agricultural chemicals are partially responsible for polluted waters. The safe use of pesticides and agricultural chemicals should be practiced if they are to be used. Minnesota Environmental Quality Board (EQB) developed 1988

guidelines related to the wise use of pesticides and nutrients. The safe use and disposal of pesticides, agricultural chemicals, and containers is critical for cleaning up groundwater supplies and providing for safe drinking water for both humans and animals for generations to come.

### Goal 3 Recommendations

Goal Restated: Adopt agricultural pollution controls to prevent agricultural runoff from polluting surface and groundwater supplies and adopt controls for the safe use of pesticides and chemical fertilizers.

Encourage Township compliance, based on MPCA guidelines, that controls agricultural surface and groundwater pollution. All farms should be required to follow MPCA guidelines and submit a pollution control plan to the Avon Township Board.

Implement protection strategies outlined in a Septmeber, 1988 document titled: Minnesota Gound Water Protection Strategy, and a September, 1988 document titled: A Strategy for the Wise Use of Pesticides and Nutrients, Enivronmental Quality Board (EQB) Water Resources Committee.

Implement policies outlined in a March 1988 document titled:

Water Resources Strategy for the Control of Pests and

Management of Nutrients published by the Minnesota

Environmental Quality Board, Water Resources Committee.

#### **Goal 4 Rationale**

The diversification of agricultural products grown in the township is crucial for long term family farm stability and sustainability. The agricultural products produced in the Avon Township were once diversified. Modern agricultural practices in the township have favored the planting of cash crops over a more diversified planting. Modern dairy farms, once diversified, also have the potential to increase primary dairy products and secondary dairy products (i.e. cheese making, butter making). Expensive capital intensive farming equipment was purchased. Agricultural product diversification was replaced by easy-to-market products. This led to the collapse of many family farms. Although a diversified product base may not provide the same initial return on investment that cash crops and single dairy products provide, a diversified product base opens new markets that may be developed into a long term economic advantage. The shift to a more diversified product base also requires a return to some smaller and intermediate sized farming equipment. The practice of product diversification combined with the use of smaller sized, more affordable equipment may be an important step in reversing the trend of

family farm foreclosure and subdivision buyouts.

#### **Goal 4 Recommendations**

Goal Restated: Diversify agricultural products grown in the Township.

Adopt an agricultural product diversification policy that encourages the development of new agricultural products. Farmers, over a period of ten years, could increase their farm products from approximately three to ten. 5 % of the farmland could be set aside for experimentation with new crop types and non-traditional farming products (i.e. beekeeping, sugar cane, sorgum, syrup production, goat milk).

Utilize the County Extension Service that offers help in developing new agricultural products.

Subscribe to the Small Farmer's Journal which addresses agricultural product diversification in most issues.

### **Goal 5 Rationale**

Diversify local and regional markets that are capable of absorbing new agricultural products that are developed as part of Goal 4. Secondary processing of agricultural products may help create new markets and should be encouraged. For example, dairy products could be produced in (home-based) cottage industries in the Township and sold at local or regional markets (i.e. cheese, butter).

### **Goal 5 Recommendations**

Goal Restated: Diversify local and regional markets.

Develop the Avon Township Farmers Market that would serve local and regional customers. The market should include new and traditional agricultural products, artisian works, crafts, cottage industry products, and local music in an attempt to create a cultural festival atmosphere (i.e. Pikes Place Market in Seattle, WA).

Utilize the product marketing services of the Small Business Development Center at St. Cloud State University.



**Goal 6 Rationale**

Increasing the use of less expensive, more labor intensive farm equipment triggers several positive events. First, and foremost, smaller equipment requires an increase in family participation and thus an increase in the feeling of farm ownership. With an increase in the feeling of family farm ownership, young children may be more emotionally tied to the farm. With an emotional tie to the farm children may choose farming as a livelihood and thus maintain the family farm heritage in Avon Township. Second, decreasing the dependence on expensive capital intensive equipment has another positive impact. Less farm income is needed to pay for the high monthly loan payments associated with capital intensive farm equipment. This allows the farmer a more stable and sustainable foundation during periods of market and price fluctuation. Cash crop and single product dairy farming becomes less important when monthly bills are reduced, thus allowing farmers to experiment and diversify their product base. Smaller farm equipment is capable of handling the average 150 acre farms in Avon Township.

**Goal 6 Recommendations**

Goal Restated: Increase the use of less expensive, more labor intensive farm equipment.

Develop a farming newsletter that encourages the use of small to medium sized farm equipment. In this farming newsletter examples of successful farms using smaller equipment could be highlighted. The Township Planning Board could publish this newsletter on a quarterly or monthly basis.

Award small farmers who use small to medium sized equipment, practice soil conservation techniques and experiment with product diversity with a **Small Farmers Award** on a yearly basis. This may encourage other farmers to reduce their scale of farming equipment and increase pride in small farm practices. The Avon Township Board could present the award at an annual meeting.

#### **Goal 7 Rationale**

The adoption of alternative methods to transfer family farms from generation to generation is critical if the family farm heritage of the Avon Township is to be sustained. The current problem is farming children usually cannot afford to go into great debt, or are unwilling to go into debt, by purchasing the farm from their parents. Non-farming children also pose a problem. Without much interest in farming, non-farming children usually want to sell the farm after the parents' death. An alternative system that addresses the needs of the farming children and the non-farming children

is necessary in sustaining Avon Township's family farm heritage.

### **Goal 7 Recommendations**

Goal Restated: Adopt alternative methods to transfer family farms from one generation to another generation.

Identify farming families in the township that have this concern and hold educational meetings related to alternative options that are available to these families. Options include setting up family farm corporations, family farm trusts, and family farm foundations. These systems have advantages and disadvantages. The most appropriate method is dependent on the nature of the farm family.

### **Goal 8 Rationale**

The establishment of a resource, experimentation, and education farm in the township that operates under the general mission of sustaining the family farm heritage could help in meeting many of the township's agricultural goals. **Project FARM (Farming Alternatives for Rural Minnesota)** could attract statewide attention. Its mission would include:

A) The distribution of resources to local farmers.

B) The development and experimentation of new

agricultural products and markets.

- C) Conducting experiments in soil conservation and organic farming.
- D) Acting as a location for a regional farmers market.
- E) Conducting experiments with less expensive farm equipment (i.e. smaller tractors)
- F) Conducting workshops on different farming topics and techniques.
- G) Helping farm families set up family farm corporations, trusts, and foundations.
- H) Is owned and operated as a non-profit cooperative corporation by the township people.

#### **Goal 8 Recommendations**

Goal Restated: Establish a resource, experimentation and education farm in the township that operates under the mission of sustaining the family farm.

Through the establishment of a non-profit corporation,

develop a section of agricultural land for Project FARM. This land could be used for several purposes.

- 1) Establish Project FARM (Farming Alternatives for Rural Minnesota) on a portion of this land. University of Minnesota and SCSU students may work with local Township farmers as interns at Project FARM, providing free labor. The Minnesota Environmental Quality Board (EQB) is seeking to establish experimental farms.
  
- 2) A portion of this land could be developed and zoned residential for a transient bedroom community. The non-profit corporation could use capital from the transient bedroom community to launch Project FARM.

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**INDUSTRY**

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The term industry carries a broad definition that often leads to confusion when planning. According to Webster's New World Dictionary, industry means any manufacturing enterprise. In some circles industry carries a positive meaning while in others it carries a negative stigma. **Appropriate scale** is one key element of industry that may enhance cultural diversity and economic stability of the Township while being sensitive to the unique cultural history. The definition of industry must be subdivided into categories of scale in order to define those industries that would enhance the community fiber, character and spirit of the Township. It is very difficult to identify the differences between the many types of industry. For example, a fully automated plant may contain only a dozen employees but produce a high volume of products. With this in mind, the number of employees will be used to differentiate between the different scaled industries, along with other factors. Industry will be subdivided into the following categories:

Heavy Industry

Appropriate Light Industry

Cottage Industry

Art/Craft Industry

## Heavy Industry

### Goals

Heavy industries are those manufacturing enterprises that have one or more of the following characteristics:

- 1) have more than 50 full time employees;
- 2) tend to pollute the air and water of a community;
- 3) are often owned by persons or stockholders living outside the community;
- 4) tend to have very little interest in the total well being of a community or rural township;
- 5) tend to hire unskilled labor at or slightly above minimum wage;
- 6) tend to relocate in an attempt to find cheaper labor. (McRobie, Intermediate Technology Development Group, Small is Possible.)

Heavy industry is inappropriate in the Avon Township for environmental and cultural reasons.

### Rationale

Although not all heavy industries are not negative and because of the economies of scale are somewhat necessary (i.e. steel industry), they rarely enhance the community

fiber, character, spirit and economic sustainability of a township. It is for this reason that heavy industry in the Avon Township should be limited.

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### **Heavy Industry Recommendation**

Manufacturing and construction enterprises requiring more than 50 workers should not be located in Avon Township.

### **Appropriate Light Industry ALI**

#### **Goals**

Appropriate light industries are those manufacturers or construction enterprises that have fewer than 50 full time workers and follow operating guidelines established by the Township. They tend to have the following characteristics:

- 1) are small in scale, simple to install, and durable in operation, therefore they tend to be stable;
- 2) are labor rather than capital intensive, using semi-skilled or skilled workers;
- 3) are not dependent on a highly centralized infrastructure for production, maintenance, or repair;
- 4) make effective, efficient use of available resources; both human and material;
- 5) meet the needs of local communities and enhance the



- self reliance of such communities; and
- 6) enhance rather than degrade the environment.

(U.S. Office of Technology Assessment, Technology and Local Development)

Appropriate Light Industries, that follow guidelines, may be suitable in Avon Township (ALI's should be located in the areas designated on the map on the inside of the back cover).

### **Rationale**

Although any light industrial operation may pose environmental risks, it is possible that ALI's may enhance the community fiber, character and economic stability and sustainability of a township. Cultural diversity may also be enhanced when an ALI operates in the township. ALI's should follow guidelines established by the township that address:

- 1) appropriate location;
- 2) environmentally safe manufacturing processes;
- 3) comprehensive scrap, waste and recycling program;
- 4) manufacture of needed products that are culturally appropriate to the township;
- 5) sell their products locally so that the workers who made the products have the potential to purchase the product;
- 6) produce durable high quality products;

- 7) use local indigenous resources where possible, including material and renewable energy resources;
- 8) take advantage of the skills of the people living in the community instead of hiring outside specialists;
- 9) create meaningful work for township people, workers are treated with respect and are allowed to enter the enterprise's decision making process.
- 10) allow workers to become part owners of the manufacturing enterprise if they so wish, through the establishment of Employee Stock Option Plans (ESOP's) or cooperative corporations.

#### **Appropriate Light Industry Recommendations**

Adopt a policy that allows appropriate light industries, which agree to meet and follow the above guidelines, to locate in Avon Township.

Adopt a policy that requires the manufacturer to develop a ALI-Comprehensive Plan that addresses the guidelines listed above.

ALI's may not be located on prime agricultural land, or forested areas.

Locate ALI's in an appropriate location such as an industrial

park or industrial zoned area. (i.e. an area east of the City of Avon between I-94 and the Northern Railroad may be appropriate if environmental concerns can be properly addressed and resolved.

The Township Planning Board should conduct quarterly inspections of Appropriate Light Industries, related to compliance with a scrap, waste, and pollution program. Lake Anna is located near the recommended region and must be protected from scrap, waste and pollution generated by ALI's.

### **Cottage Industry**

#### **Goal**

A cottage industry is a manufacturing or construction enterprise that operates out of a homesite. They tend to be very small scale with usually fewer than 5 family employees. A kitchen, garage, basement, and in some cases an outbuilding may be used as the facility in the production process.

Encouraging residents of Avon Township to develop cottage industries will enhance the cultural fiber, character, heritage, and spirit of the community.

#### **Rationale**

Cottage industries enhance community fiber, character, and spirit. They are often associated with well balanced

actualizing communities. Characteristics include:

- 1) very small scale operations;
- 2) workers tend to be family members and engage in part time work;
- 3) labor intensive rather than capital intensive;
- 4) semi-skilled or skilled talents required;
- 5) work tends to be very rewarding and meaningful;
- 6) high quality work and worker pride are common;
- 7) provide an important income and economic stability to a community;
- 8) tend to be environmentally non-polluting;
- 9) provide products that enhance the cultural history of a region, and;
- 10) provide products that can be sold locally and marketed regionally.

Cottage industries tend to strengthen family unity by promoting creative entrepreneurship, and family cooperation. This is similar unity to that which is developed by the family farm environment and should be supported in all areas of the Township. Cottage industries that wish to locate in housing developments must be carefully reviewed before the enterprise is allowed to operate in such areas. One great problem with post-industrial lifestyle is that work is separated from the home. This creates a culture that is shallow and finds its only meaning in non-work activities

(i.e. TV, weekend recreation, etc.) The cottage industry allows young people to grow up in a holistic environment that enhances the creative spirit of family members and the necessary cooperative spirit associated with a healthy family and community. Cottage industries, like Appropriate Light Industries (ALI), should follow some guidelines that will insure community harmony. Guidelines include:

- 1) Noise pollution should be controlled so that family members and neighbors are not harmed or disturbed.
- 2) A plan for scrap, waste and pollution should be developed so that Township land, air and water resources are protected.
- 3) Raw materials used in the manufacturing or construction process should be stored in a safe and neat manner within a structure or shed when possible.
- 4) Cottage industries should be limited to one out-building in housing developments. And three out-buildings for single family housing units located on larger lots in agricultural areas.

#### **Cottage Industry Recommendations**

Cottage industries should be allowed to operate in the Township if they follow the above guidelines.

Cottage industries may be allowed to be located in

residential areas.

Adopt a policy that requires a cottage industry to submit a Cottage Industry Comprehensive Plan to the Avon Township Planning Board outlining how they will follow the above guidelines.

### **Art/Craft Industry**

#### **Goals**

Avon Township should encourage the Art/Craft Industry to develop in the Township borders. This is a special industrial category that enhances the cultural fiber and history of a region. Anthropologists, when studying the nature of a culture or community, explore the development of the art of the culture to assess whether it is an highly actualizing culture. A highly developed industrial region that focused solely on the economic base would lack cultural harmony. Art is broadly defined to include traditional arts and crafts (i.e. pottery, painting, sculpture, art photography, etc.) as well as music, dance, and philosophy. In modern society, economic demands have made it difficult for the Art/Craft industry to operate. Arts and crafts are critical to the full development of a Township by:

- 1) providing cross-cultural harmony;

- 2) enhancing cultural diversity;
- 3) being motivated by purposes other than economic;
- 4) enhancing freedom through cultural statements not promoted in strictly economic environments;
- 5) crossing and uniting all social institutions (i.e. family, religion, commerce, government, education, and recreation), and;
- 6) are a necessary foundation for a fully developed culture.

#### **Rationale**

Arts and crafts, in Avon Township, should be promoted for the above reasons. A comprehensive Township that promotes arts and crafts has the potential to develop all of its creative talents.

#### **Recommendation**

Adopt a policy that supports arts and crafts industry within most areas of the Township. Such industries locating in housing developments require careful consideration.

Those enterprises applying for permission to operate should develop an Art/Craft Comprehensive Plan that contains the following:

Purpose and Philosophy

Art Medium(s)

Scrap, waste and pollution program

Short and Long Range Impact on Township

Arts/Crafts Industry should be promoted and allowed to operate in all areas of Avon Township.



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**COMMERCIAL**

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**Goals**

The commercial district has been traditionally located in the City of Avon. However, with the population increase that the Township is experiencing, commercial districts, with limitations, may be established in order to promote appropriate development.

**Rationale**

The commercial district in the Township should be limited because most commercial services offered are found in the City of Avon and other nearby cities such as St. Cloud and St. Joseph.

**Recommendations**

Commercial enterprises must be culturally appropriate, as defined by the Avon Township Planning Board.

The services or products that are distributed must be of high

value, high quality and need to the Township people.

Commercial districts should be limited to the section between I-94 and the Northern Railroad east of the City of Avon (see map on the inside back cover).

Commercial enterprises should not be placed in prime agricultural farmland.

Commercial enterprises should not be placed in forested areas of the Township.

The other appropriate location for a commercial district is the area known as St. Anna. A small area near the intersection of Rt. 9 and 154 may be an appropriate location for small commercial enterprises (see Commercial Districts map on following page).

Commercial enterprises should follow environmental guidelines for Appropriate Light Industry in the handling of any scrap, waste or pollution that is generated by conducting business. Commercial enterprises must submit a scrap, waste, and pollution plan to the Avon Township Planning Board.

The structures that are to be used by commercial enterprises should follow the same energy conservation guidelines and erosion guidelines that housing units are subjected to (see

Housing recommendations).

Commercial enterprises related to the storing and stockpiling of tires, scrap automobiles, refrigerators, air conditioners, scrap materials, oil drums, fertilizer drums, pesticide drums, hazardous wastes and those products associated with hazardous wastes should not be allowed in Avon Township. Existing enterprises related to the storage of tires, scrap automobiles, refrigerators, air conditioners, scrap materials, oil drums, fertilizer drums, pesticide drums, hazardous wastes, and those products associated with hazardous wastes should be closed and those materials should be sent to the appropriate scrap, waste and recycling facilities. Removal costs should be paid by those persons who are storing the above materials.

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**HOUSING**

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**Goals**

The long range housing goal of the Avon Township is to establish a logical plan for siting single family housing units, housing developments, mobile home parks, and non-conforming housing types in an environmentally sound, energy conserving manner. Several subdivisions have been developed on prime agricultural land as defined by the SWCD and the SCS. This development should be restricted for several reasons. Prime agricultural land, once developed for housing purposes, becomes impossible to reclaim. Prime agricultural land is the most productive and economically viable land in the Township. Because there are no plans to provide urban services, such as sanitary sewer and water, to the township, the density of residential development must be limited.

**Single Family Housing**

The general long term housing goals for single family housing are:

- 1) Limit new housing starts to an environmentally safe and culturally enhancing level.

- 2) Allow children to build homes (within limits) near their parents to enhance family harmony and cultural history.
- 3) Provide safe, healthful, energy efficient, and aesthetically pleasing residential housing.

### **Rationale**

New housing developments in non-residential districts should be discouraged. Avon Township has subdivision regulations which limit subdividing property and setting plat guidelines. Further development in the Township is subject to the subdivision regulations of the County. Avon Township will adopt a new zoning ordinance addressing lot sizes for new platted housing developments, as well as any proposed housing units in agricultural areas. Individual housing units in agricultural areas should be restricted. Lot size for all residential housing must be of sufficient size for individual wells and sewage disposal systems. The design of energy efficient and environmentally safe housing is important for long term sustainability. New starts should incorporate energy efficient design where appropriate and follow guidelines for controlling erosion on construction sites as developed by the U.S. Department of Agriculture, Soil Conservation Service.

### **Recommendations**

Limit all single family housing to lots of adequate size for wells and sewage disposal systems.

Restrict subdividing agricultural areas for single family lots, except where housing developments in plats are proper as discussed below.

Develop housing design & construction guidelines that promote energy efficient housing design and construction practices. These guidelines should address minimum insulation requirements and the use of renewable energy systems where appropriate. (i.e. wind access, solar access, etc).

Dwellings should be designed, sited and constructed with energy conservation in lighting, cooling and heating as a high priority. Note: The building inspector could also conduct an energy audit of housing plans and a solar siting for future homeowners.

### **Housing Developments**

Housing developments are areas where two or more dwelling units are placed in close proximity of each other. The long term housing development goals include the limiting of housing developments to areas that are not suitable agricultural farmland, to areas not in forested land, and to areas not near surface waters (i.e. marshes, wetlands,

streams, lakes). The lake and wetland areas are controlled by the Stearns County Shoreland Zoning Ordinance and the Floodplain Ordinance. Housing developments should be limited for the same environmental and cultural reasons that single family housing is. Housing developments should also address the recreational needs of residents in the community.

### **Rationale**

Environmental and social stresses placed on rural townships allowing housing developments to be placed haphazardly throughout the township are usually irreversible.

Environmental problems associated with housing developments include soil erosion, surface and ground contamination, and loss of diverse ecotones (i.e. forests, prairie, wetlands, marshes, indigenous flora, fauna species). Social stresses often develop between rural residents and housing development residents. Little cultural exchange occurs between housing developments and the rural residents. The bedroom community phenomenon that is developing in central Minnesota does not greatly enhance the cultural fiber, character, or spirit of rural townships as a whole. Developers and the homeowners benefit greatly, but townships are not environmentally or culturally enhanced by allowing housing developments to be placed haphazardly throughout the Township.

Those agricultural districts which are determined by the SWCD

and SCS to consist of poor farmland may be appropriate locations for housing developments. The limited forested area in the Avon Township should be protected from housing developments for environmental impact reasons (i.e. erosion, pollution) and ecological reasons (i.e. species diversity). Surface waters, such as marshes, lakes, and small streams should be protected from housing developments. Waters in central Minnesota are already in danger of being contaminated for various reasons (i.e. agricultural runoff, agricultural chemicals, inadequate housing sewage treatment systems, and inadequate household and industrial hazardous waste disposal practices).

### **Recommendations**

A non-profit corporation may be established in order to develop a section of Avon Township into a transient housing development. Land located in the southeast section of the township, near I-94, has some advantages over other Township land. Students and working families may find the southeast area of the Township an ideal location because of its proximity to I-94, St. Johns University, St. Benedicts, St. Cloud State University and the City of St. Cloud. Capital generated from this development project should be used to develop a Project FARM as described previously.

Limit housing development to agricultural land that is



determined by the SWCD and SCS to be poor farmland. Note: If soil conservation practices are not implemented more and more land will qualify for housing development.

Water testing is required for housing developments. Water quality must meet safe drinking standards as established by Minnesota Pollution Control Authority and the Minnesota Environmental Quality Board, Water Resources Committee. If water quality standards change, the stricter guidelines are to be used. Those housing development sites that do not meet safe drinking water standards cannot be developed.

Limit housing developments to locations that are not heavily wooded (see map on inside of back cover).

Limit housing developments to locations not near surface waters such as marshes, wetlands, lakes, and streams (see map on inside of back cover).

All dwellings in a housing development should be designed, sited, and constructed with energy conservation techniques for lighting, cooling and heating.

All housing developments should be developed following guidelines for controlling erosion on construction sites as developed by the SCS.

Recreation facilities and "green space" should be provided by the developer for people living in housing developments (i.e. children's playground, basketball court, ice skating rink, park, etc.). (see Recreation Recommendations). Green space are areas that are left in their natural form. The Avon Township Planning board should determine the appropriate type of recreational facilities and "green space" based on site specific analysis.

#### **Manufactured Homes and Mobile Home Parks**

Single family mobile homes should be subjected to the requirements that single family housing units must follow. It may be appropriate to site a future mobile home park near I-94 to handle the low income transient populations associated with university student populations.

#### **Rationale**

Minnesota state law prohibits discrimination against manufactured homes. Economic discrimination is often as culturally destructive as other forms of discrimination (i.e. racial, sex, religious, etc.). Mobile home parks offer low income transient populations an alternative to the more expensive bedroom community development projects. However, mobile home parks should be required to follow certain guidelines which recognize the unique characteristics of

manufactured homes. They should be located in agricultural districts that are determined to be poor farmland by the SWCD and the SCS. Mobile home parks should not be placed in forested areas or near surface waters (i.e. marshes, wetlands, lakes, and streams). They should follow similar energy efficient guidelines that housing developments are subjected to. They should also provide a recreational area for residents. A special zoning classification should be adopted for mobile home parks, which can address the concerns of mobile home residents as well as the remaining township residents.

### **Recommendations**

Single family manufactured home units should follow the guidelines associated with single family housing units as describe previously. A special zoning classification should be established for mobile home parks.

Mobile home parks should be placed in agricultural districts where farmland is determined to be poor by the SWCD and SCS.

Water testing must be required for mobile home parks. Those locations that do not meet safe drinking water standards as defined by MPCA and EQB cannot be developed (See Housing Development Recommendations).

Mobile home parks should provide a recreational area for residents.

Mobile home parks should not be placed in forested areas.

Mobile home parks should not be placed near surface waters (i.e. marshes, wetlands, lakes, and streams).

### **Non-Conforming Housing & Land Use**

Non-conforming housing includes those dwellings that do not fall into the above category such as emergency housing, public schools, private schools, religious structures (i.e. churches), non-profit educational camps, non-profit foundation schools, community centers, and non-profit recreational facilities. Non-conforming housing structures that enhance the cultural fiber, heritage and spirit of Avon Township should be allowed to be located in Avon Township. These housing types should be subjected to stringent environmental and energy conserving standards (i.e. erosion control, waste management, solar siting, access, etc). Airports, golf courses, water slides, and down-hill ski resorts are culturally and/or environmentally inappropriate non-conforming land uses and should not be sited in the Avon Township during the next 30 years.

### **Rationale**

Emergency housing may be necessary for disasters that cannot be predicted (i.e. fire, tornadoes, etc.). Emergency housing requires quick construction response not afforded to other housing types. The high caring factor associated with the Avon Township should allow temporary emergency housing to be constructed during times of artificial and natural disasters.

If central Minnesota population trends continue to increase it may be necessary to site public and private schools in the Township in order to reduce commuting times associated with transporting Avon Township children to other townships.

Religious structures (i.e. churches, etc.) should be allowed to be located in the Avon Township as long as environmental and energy conservation standards are followed.

Non-profit educational camps and non-profit schools should be allowed to locate in Avon Township. Non-profit educational camps are seasonal education camps related to environmental education, outdoor education, agricultural education, and art education. Non-profit foundation schools related to environmental education, outdoor education, agricultural education, and art education will enhance the long term cultural heritage of Avon Township. These schools, in facility design and operation, should also follow

environmental standards and energy conservation standards.

A multi-use community center should be designed and built in the township for a variety of reasons. A community center can enhance the spirit of a township by uniting all social institutions. A Township Inspector could use the facility as an office. The Avon Township Planning Board and the Avon Township Board of Supervisors could use the facility as a meeting place. A new record system could be developed that would increase Township government efficiency and be housed in the Community Center. Other community organizations, (i.e. 4-H clubs, Boy Scouts of America) could use the facility as a meeting place. A small rental fee could be charged to organizations other than non-profit types.

Non-profit recreational facilities may be needed in the Township. These facilities may take many forms (i.e. temporary ice skating warming shelter, nature trail weather shelter, etc.).

## Recommendations

Non-conforming housing units, such as emergency housing types, should be allowed to be quickly erected after a natural or artificial disaster.

Non-conforming housing units, such as public and private schools, should be sited in the township when population demographics dictate these facilities are necessary.

Religious facilities are appropriate non-conforming housing types and are required to follow environmental standards and energy conserving guidelines as established by the Township.

Non-profit educational camps and non-profit educational schools related to Environmental Education, Outdoor Education, Agricultural Education and Art Education may be located in the township if they follow environmental standards and energy conserving guidelines established by the Township.

A multi-use community center should be established in Avon Township and should follow environmental standards and energy conserving guidelines established by the Township (see map on inside of back cover).

Small non-profit recreational facilities should be established in the township.

Other recreational uses of land may be permitted as conditional uses to strict regulatory guidelines.



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**EDUCATION**

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**Goals**

To provide an educational framework and facilities in which students can obtain a socially and intellectually learning experience. The educational experience should be broad based providing exposure to a variety of disciplines.

**Rationale**

In today's society, many people view education as a necessary prerequisite for obtaining a job. In reality education at the elementary and secondary levels shapes and determines many of the values students form and carry into adulthood. Reading, writing and arithmetic are important aspects of this process. Equally important are the arts, sciences, and humanities. Failure to expose students to these diverse disciplines is a disservice to them. They are left with an education that is narrow and too specific for the diverse society in which they must function. The Occupational Outlook Handbook (1986) indicates that the average worker will hold four to six jobs in two or three different career areas.

In order to provide the quality diverse education necessary,

proper facilities and teacher-student ratios must be maintained. Numerous studies on teacher-student ratios and the quality of education support maintaining proper class sizes. Failure to do so may decrease the educational quality.

### **Recommendations**

Avon Township should work closely with the Stearns County Commissioners, the three school districts, and the City of Avon in monitoring the number of students in the Township and City. This will give the Township an active role in determining the quality of the education their children receive.

As the Township grows, it may become necessary to locate an Elementary, Junior High or a High School within the Township boundaries. To avoid problems of location in the future, a parcel of land should be identified for Educational/Community purposes. A suitable area would be the land adjacent to Anna Lake on the north and west side (see map on inside of back cover). This land is centrally located in the Township and is easily accessed by existing roads. In order to maintain the present characteristics of the property, the uses should remain limited to agricultural and pastoral, or woodland, until such time as the above mentioned Educational/Community uses are implemented.

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CONSERVATION/RECREATION

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**Goals**

A very important goal in Avon Township is conservation of the natural resources of the Township to ensure that future generations will have a healthy, stable, diverse, and sustainable environment. Limited recreational use is also part of this goal. Areas in the Township should be provided for outdoor activities that stimulate family and community interaction with the natural environment. Part of this goal is to minimize human related impacts by developing a Comprehensive Township Plan for Waste Reduction and Recycling.

**Rationale**

The best time to develop conservation behavior is before the natural carrying capacities of an environment are harmed or destroyed. Conservation before catastrophe is the most economical and logical planning approach. Natural resources that should be conserved include water, land, and air. Conservation behaviors will help in protecting areas with clean water, land, and air and conservation practices will

also help regenerate those ecosystems that are already suffering from overuse, misuse and pollution.

Avon Township enjoys a diversified geography that blends lakes, streams, forest, wildlife, and farmland. Aquatic life is rich because of the many streams and lakes. Forests provide a habitat for many forms of life, including, micro-organisms, insects, rodents, wildlife, and in some cases, people. Soils of the agricultural base have provided the Township with an economic base.

Family and community members should have the opportunity to enjoy the natural outdoor environment. Low-impact recreational use, in selected areas of the Township is needed. Travel to state and regional parks is difficult for families and community members. Limited use parks allow families to strengthen family harmony. In addition, limited use parks also increase Township residents appreciation for the natural environment. Sources of funding for conservation and recreational purposes include: County Park Commission, Department of Trade and Economic Development, Trail Assistance Program, DNR, Community Development Block Grants awarded through the Department of Housing and Urban Affairs.

People of the Township need to be active participants in maintaining healthy areas as well as cleaning up those areas that are unhealthy. A Comprehensive Township Waste

Reduction, Household Hazardous Waste, and Recycling Program

is necessary to insure a healthy natural environment for future generations.

### **Recommendations**

Forested lands should be conserved using proper forestry management techniques. A one-hundred year forestry management plan should be developed for all of the forested areas in Avon Township. SCS, SWCD, and the DNR will help landowners in developing a forestry management plan. Landowners who wish to harvest any forest should submit a forestry management plan to the Avon Township Planning Board.

Forestry land should not be converted into agricultural land. Avon Township is very fortunate to have approximately 8% of the forested land in Stearns County and should not reduce this percentage even for economic reasons associated with agricultural development.

Agriculture soil conservation practices should be implemented as outlined by the SWCD and SCS (see Agricultural Recommendations).

Marshes, wetlands, lakes, and streams should be protected from high density impact associated with housing developments. (see Housing Recommendations).

Surface and groundwaters should be protected from agricultural pollution caused by runoff and agricultural chemicals (see Agricultural Recommendations).

Appropriate Light Industries and Cottage Industries must develop a Scrap, Waste, and Pollution Program and submit the program to the Avon Township Planning Board in an effort to protect surface water, groundwater, land, and air resources from becoming polluted (see Industrial Recommendations for API and Cottage Industries).

Designate certain areas in the Township for recreational use. Three areas in the Township are excellently suited for this designation.

The first area is in the southeast corner of the Township, and involves land adjacent to or near Achman Lake, in sections 25 and 26 (see map on inside of back cover). The lake and adjacent woodland would provide an excellent area for the preservation of the natural conditions while allowing for certain recreational uses, including hiking, cross country skiing, and fishing. Hunting and motorized vehicles would be excluded so as to retain the natural character and habitat of the area.

Secondly, promote the lands in Section 19 for the following

limited uses (see map on inside of back cover): as a nature and game preserve to be maintained in its natural condition for the purposes of scientific research, education, aesthetic enjoyment and providing habitat for plant and animal species and communities, as well as other natural projects.

Establish a portion of the land in Section 17, south of Pelican Lake, for limited recreational uses (see map on inside of back cover). Its hilly topography make this land ideal for cross country skiing and hiking. This area could serve persons living in the northwest section of Avon Township.

Though the land in Section 19 is presently being administered in the manner described above, the other properties are presently being used for agricultural and related purposes. In order to maintain the present characteristics of the property, the uses should remain limited to agricultural and pastoral, or woodland, until such time as the above mentioned, conservational/recreational uses can be implemented.

Establish a skating pond on Anna Lake and on Pelican Lake (see map on inside of back cover). A small warming house could be located on the shore of each lake. The establishment of such rinks would utilize natural resources and diminish the amount of time required to prepare and maintain such facilities, as opposed to skating rinks placed

on land.

Many housing developments are located away from the City of Avon's recreational facilities. Therefore, it is important that housing subdivisions include a parcel of appropriate size for the development of mini-parks as defined by the County.

The Township Planning Board should work closely with the County Park Commission so that resources there are fully utilized.

Develop a Comprehensive Township Waste Reduction and Recycling Program. This should be developed by the Avon Township Planning Board. Material source separation techniques should be promoted in the Township. Household hazardous waste policies developed by the MPCA should be followed (Flyers are available from the MPCA as to how people should handle and dispose of common household hazardous wastes). The Avon Township Board may wish to distribute this information to township residents in a newsletter form. On-site incineration guidelines should be established.

Air pollution from wood burning stoves should be reduced by the use of catalytic combustors. Add-on units are available, while most new wood burners are manufactured with built-in catalytic combustors. Wood stoves with properly designed



and installed catalytic combustors actually increase wood stove efficiency, decrease creosote buildup, and reduce after-combustion pollution. Safety considerations, pollution reduction, and economic paybacks associated with the use of catalytic combustors are beneficial to Avon Township and therefore, should be encouraged.

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## IMPLEMENTATION

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### Goals

With approximately 2000 people, the Avon Township still enjoys the human scale population that strengthens the public participation decision making process. Avon Township Comprehensive Plan was designed with a 30 year vision. Its basic mission was to enrich the spirit of the township, enrich the natural resource base and preserve the family farm heritage of Avon Township. The long range implementation goal is to use traditional and non-traditional mechanisms to implement the goals associated with the Avon Township Comprehensive Plan. Traditional mechanisms are related to the development and enforcement of zoning ordinances based on the comprehensive plan. Non-traditional mechanisms are related to an increased level of public participation through volunteer efforts and the establishment of a non-profit corporation to carry out those recommendations that fall outside the zoning ordinances mechanism.

### Rationale

Implementation of this comprehensive plan requires more than

just the drafting of new zoning ordinances. Changes in environmental, social, and economic foundations require a new vision and a more comprehensive implementation plan than was previously administered. The implementation of this comprehensive plan will require an increased level of public participation. It will also require more work on the part of the Avon Township Planning Board and the Avon Township Board. Full time workers who also serve on the ATPB and the ATB will find it very difficult to implement the comprehensive plan based on their time restrictions. Additional help is required outside the political process of adopting official zoning ordinance. The leaders and citizens of Avon Township must increase their networking with regional agencies that can provide inexpensive help (i.e. SWCD, SCS, Ag. Extension, DNR, SCSU, etc.).

### **Recommendations**

A volunteer non-profit foundation should be established, with a Board of Directors, for the purpose of implementing the comprehensive plan recommendations that fall outside of zoning ordinance regulations. Local Development Authorities (LDA's) may be established for such purposes.

A new set of zoning ordinances must be drafted following the public acceptance of this comprehensive plan. A zoning ordinance inspector, who upholds and enforces the Official

Zoning Ordinance of the Avon Township, is required.

Appropriate change in operating practices requires an adequate and fair time period. It is the responsibility of the Avon Township Planning Board to assess the recommendations related to zoning ordinances and establish an adequate implementation period for the various recommendations.

All uses which do not conform with this plan and any following zoning ordinance or other regulations adopted pursuant to the goals and guidelines set forth in this plan should be discouraged.

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