

# **Farmland Preservation Plan for Trumbull County**

**TRUMBULL COUNTY COMMISSIONERS**

**Joseph J. Angelo, Jr., President**

**Michael J. O'Brien**

**James G. Tsagaris**

**Roselyn Ferris, Clerk**

**Prepared by the  
Trumbull County  
Planning Commission**

**December, 1999**

# TRUMBULL COUNTY PLANNING COMMISSION

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Michael J. O'Brien	.....	Commissioner
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# Trumbull County Farmland Preservation Plan

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# **INTRODUCTION**

“When there is plenty  
of food on the table,  
there are many  
problems to discuss.  
When there is no food  
on the table,  
there is only one  
problem to discuss.”

*Chinese proverb*

# **INTRODUCTION**

## **Mission Statement**

The mission of the Trumbull County Farmland Preservation Task Force is to recommend to the County Commissioners, local leadership, and citizens of Trumbull County, a plan that preserves both farmland and the agricultural industry, while allowing for the orderly development of lands removed from farming.

## **Requirements**

The Ohio Department of Development, Office of Housing and Community Partnerships (OHCP) established the requirements for the Farmland Preservation Plan in Trumbull County.

- 1) The first requirement set forth by the Ohio Department of Development for this plan was fulfilled on December 17, 1998. On this day, the County Commissioners appointed members to the Farmland Preservation Task Force per the recommendation of the staff of the Trumbull County Planning Commission. This task force was made up from a diverse cross section of the community to give proper citizen representation during the planning process. The Task Force consists of the following members:

Lewis Kostoff  
Trumbull County Planning Commission

Ernest Oelker  
OSU County Ext. Agent

Michael J. O'Brien  
Trumbull County Commissioner

Sandy Chenal  
Crossroads RC&D Council

John Sliwinski  
Trumbull County Planning Commission

John Parker  
Farm Bureau

Bob Harris  
Farmington Twp. Zoning Insp.

Betty Sekula  
Home Builders Association

Alex Bobersky  
Warren Community Development Dept.

John Knapp  
Soil Conservation Service

Terry Blair  
Trumbull County Health Department

Jay Logan  
Farmer & Gustavus Twp. Trustee

Richard Houk  
Trumbull County Farm Bureau

Beverly Friend  
Realtor

Dave Brown  
Soil Conservation Service

George Sharec  
Farmer

Barbara Busko  
Animal Welfare League

Laura Lyden  
Chamber of Commerce

Susan Montgomery  
Farmer

Susan Crowell  
Farm and Dairy Newspaper

Norris Williams  
Soil Scientist

Robert Senvisky  
Trumbull County Auditor's Office

Maria Catullo  
Eastgate Development and Transportation Agency

- 2) The second requirement was to identify and map the soil types in the county via a classification system. It should be noted that the "Soils identification and mapping..." section of this plan meets and exceeds Trumbull County's responsibilities as required under the Ohio Small Cities Community Development Block Grant (CDBG) Formula Allocation Program (see Soils section).
- 3) The last requirement was fulfilled on December 31, 1999, with the completion and submission of the plan to the OHCP.

The Planning Commission feels that it is important to address as many pertinent issues as possible in order to be able to create a strong plan for the preservation of farmland and therefore met and exceeded the aforementioned requirements when possible.

# **IMPORTANCE OF FARMLAND PRESERVATION**

## **IMPORTANCE OF FARMLAND PRESERVATION**

One of the first questions that was asked by various people during the course of this plan was “Is farmland preservation really an important issue?” This question can be partially answered by simply educating people to the following list of facts.

### **List of facts by the Ohio Department of Agriculture (ODA)**

- Agriculture is Ohio’s #1 Industry contributing \$67.7 billion per year to our economy
- We cannot survive without food
- An acre of farmland is about the size of a football field. It takes the equivalent of 4.8 football fields to clothe & feed an average American family.
- The typical family of 4 eats 5,000 pounds of food per year & farmers meet this challenge.
- Average American consumes 24 gallons of milk, 123 pounds of red meat, 94 pounds of poultry and 235 eggs annually. Yet it costs us about 12% of our income for food-which is the lowest percentage in the world.
- Livestock by-products are used for medical transplants, medical treatments, china, photographic film, combs, glue, sports equipment, fabrics, crayons, chalk, paint, candles, cosmetics, floor wax, plastics & rubber.
- Crop by-products are used to make cooking oils, animal feeds, printers ink, diapers, sweeteners, plastics & fuels (soydiesel and ethanol).
- Provides “cash transfusions” that flow into every segment of our economy.
- Agriculture creates jobs.
- One out of every six Ohio residents-more than 1 million people-depend directly on agricultural-related industries for employment.

### **Agricultural Related Businesses in Trumbull County**

As stated above, agriculture is Ohio’s #1 industry contributing \$67.7 billion per year to our economy. It provides “cash transfusions” that flow into every segment of our economy and one out of every six Ohio residents (more than 1 million people) depend directly on agricultural-related industries for employment.

An agricultural related business is a private enterprise strongly linked to agriculture. The services and supplies offered by these agricultural related businesses are extremely important to agricultural stability. In addition to providing agricultural related services, these businesses employ people and provide community tax bases. Although this is not an all-inclusive list, some typical and important agricultural-related businesses in Trumbull County are listed below to show the directly related economic benefits of agriculture in our county. The following list was derived in its entirety from the Trumbull Countywide Sprint Yellow Pages, July 1999.

Agricultural Consultants

***CW Services Electrical Contracting***  
10099 State Route 193, Farmdale 876-8510

Butchering

***A Cut Above Meat Market & Deli***  
Warren 372-2686

***Mahan Packing Co.***  
6540 State Route 45, Bristolville 889-2454

***Peden's Freezer Meats***  
6989 State Route 88, Kinsman 772-6631

Dairy Products/Wholesale

***Kraft Foods, Inc.***  
5915 Burnett East Road, Farmdale 876-6771

***Ohio Dairyland Cheese Co.***  
5555 Youngstown-Warren Road 505-0539

Farm Equipment

***Cope Equipment Co., John Deere Sales & Service***  
6401 State Route 87, Kinsman 876-3191

***Lazy B Enterprises, Inc.***  
6040 State Route 45 NW, Bristolville 889-2353

***New Holland Farm Equipment/Cortland Tractor Sales, Co.***  
6192 Warren Road N.E., Kinsman 924-2555

Farm Supplies

***Miller, W. I. & Sons***  
3389 Gardner Barclay Road N.E., Kinsman 876-6573

***Quality Stores***  
5232 Tod Avenue SW, Lordstown 399-8198

***Tractor Supply Company TSC***  
3800 Elm Road N.E., Warren 372-6428

Farmer's Market

***B & K Farm Market***  
2396 Elm Road NE, Warren 372-3393

***Switzer's Farm Market***  
9055 State Route 7, Kinsman 876-8665

Feed Dealers

***Bristol Pet Foods***  
6225 State Route 45, Bristolville 889-9292

***King Brothers Feed and Ready Mix Supply***  
State Route 88, Bristolville 889-3451

***Klingensmith Feed Company***  
5345 W. Market Street, Leavittsburg 898-1805

***Peterson's Hardware and Feed***  
1107 Salt Springs Road, Lordstown 824-2151

***Trumbull-Jones Feed & Supply***  
5890 Mayburn Barclay Road, Farmdale 876-6471

<i>Western Reserve Farm Cooperative</i> 312 S. Mecca Street, Cortland	637-4015
<u>Fertilizers</u>	
<i>CBS Topsoil, Inc.</i> Warren	392-6655
<i>King Brothers Feed and Ready Mix Supply</i> State Route 88, Bristolville	889-3451
<i>Klingensmith Feed Company</i> 5345 W. Market Street, Leavittsburg	898-1805
<i>Roscoe Brothers, Inc</i> 3702 State Route 87, Gustavus	876-4223
<i>Shaffer-Muresan Inc.</i> 5886 N. Park Avenue Ext., Bristolville	889-2509
<i>Western Reserve Farm Cooperative</i> 312 S. Mecca Street, Cortland	637-4015
<u>Fertilizer's Wholesale &amp; Manufacturers</u>	
<i>The Anderson's Inc.</i> 6161 Muth Road	824-9522
<u>Livestock</u>	
<i>Passek Livestock &amp; Meats</i> 5590 N. Park Avenue, Bristolville	889-3675
<u>Livestock Auction Markets</u>	
<i>Bloomfield Livestock Auction</i> 2211 State Route 87, Bloomfield	(440) 685-4466
<u>Meat Packers</u>	
<i>Jones Processing</i> 6981 Hartford Road	772-2193
<u>Meat Wholesalers</u>	
<i>Mahan Packing Co.</i> 6540 State Route 45, Bristolville	889-2454
<i>Premium Meats, Inc.</i> 241 Logan Avenue N.E., Warren	394-8951
<i>Swenharts Zero Foods, Inc.</i> 126 Erie, Cortland	637-3075
<u>Nurseries-Plants, Trees, etc.</u>	
<i>Storeyland Christmas Tree Farm</i> 5148 State Route 7	772-8733
<i>Twin Lakes Nursery</i> 4053 U.S. Route 422, Southington	898-6033
<i>Vienna Tree Farm</i> 947 Warner Road, Vienna	394-1936
<i>Yardscapes</i> 3549 State Route 5, Cortland	638-1811

Orchards

**Hartford Orchard**

6951 State Route 305, Hartford 772-8511

Poultry Farms

**Croft Farms Deli & Catering**

1479 Ohltown-McDonald Road 652-2303

Produce-Wholesale

**Scarpaci's Wholesale Produce**

139 Forest N.E., Warren 393-5225

**Specialty Produce**

1737 Hollywood Street N.E., Warren 372-7446

Saddlery & Harness

**L'il Mare's Tack Shop**

2115 State Route 305, Cortland 637-2862

Stables

**Double S Farm**

713 Sodom Hutchings Road, Vienna 394-2106

**Martin Garry Racing Stable**

5477 Nelson Mosier Road, Braceville 898-8782

Timber & Timberland Companies

**Blaney Lumber**

3007 Youngstown- Conneaut Rd., Hartford 772-4691

**Doll Lumber Co., Inc.**

1363 State Route 534, Southington 898-8097

**Fiest Hardwoods, Inc.**

4145 Newton Falls Bailey Rd., Newton Falls 872-0966

Tractor Dealers

**Cope Equipment Co., John Deere Tractors**

6401 State Route 87, Kinsman 876-3191

**Cortland Tractor Sales Co., New Holland Tractors**

6192 Warren Road N.E., Cortland 924-2555

**Dean's Outdoor Power Equipment**

2774 Robbins Avenue SE, Niles 652-3046

Veterinary Hospitals & Clinics

**All Creatures Animal Clinic**

5916 Mahoning Avenue, Champion 847-7205

**Animal Medical Center & Cat Hospital**

5955 Youngstown Warren Road, Niles 399-4981

**Countryside Veterinary Service**

8004 State Route 5 652-0400  
876-5555

## **How Farmland Preservation Indirectly Benefits Other “Non-farmers”**

Within this document addressing the issue of farmland loss, it seems quite apparent that the county’s farmers are the benefactors of the effort. On the surface no one will dispute this, but like so many other issues of our society, there is often a catacomb of depth and hidden structure which lies beneath the initial layer. This plan aimed at curtailing farmland loss stands as no exception to this trend. The agricultural community is not the only group which farmland loss affects. This plan, as a whole, stands as a list of reasons why the issue is of importance to the community, but below is a list of groups which have a vested transparent interest in the matter of farmland loss and the consequences it produces.

- Declining inner city neighborhood residents who are left with the burden of supporting the center city infrastructure, often utilized by out migrants, but supported by the declining population
- Older inner-ring suburb residents who are also victimized by spreading disinvestment
- Numbers of senior citizens and children who cannot drive or afford cars and are stuck on either side of the proverbial track
- Institutions such as churches, schools, hospitals, banks, and arts organizations which have fixed investments in the city
- Environmentalists who are seeking to protect open spaces, greenbelts, wetlands, forest and rivers; save energy and prevent air pollution
- Advocates of mass transit and other forms of alternate transportation, such as bike paths and pedestrian walk ways
- Fair housing advocates
- Various ad hoc neighborhood groups fighting the intrusion of big box retailers, highway interchanges and widening of roads in their communities
- Historic preservationists
- Country residents who would like to see their rural communities maintain their integrity
- Business leaders who can no longer locate a central location to pool the type of skilled employees amongst the ever increasing landscapes of traffic congestion
- Developers tired of fighting NIMBY’s (Not In My Back Yard), who would like to find a consensus on an appropriate place to develop
- Long-standing religious institutions with their hemorrhaging parishes
- Social advocates who work against the county’s continuing perpetuation of an antedated system of class isolation and racism.

## **Farm History in Trumbull County**

The presence of agriculture has played a significant role in the history and development of present day Trumbull County. To better understand the role agriculture has played within the county, the major historical developments of the area will be traced. These events do not have a direct bearing on the Task Force's ability to preserve farmland in the county, but are noted to grant a better understanding of the conditions that have allowed agriculture to gain such a predominance in the area. The developments are not limited to the short period of time the county has been occupied by European settlers, with several events occurring during prehistoric times which are known to have had a significant shaping influence on agriculture in the area.

The Appalachian Uplift, the first of these events, helped give the area its favorable agricultural climate. This event transpired over two hundred million years ago causing a prolonged geological upheaval of the eastern North American continent from what is now New York State to present day Florida. Portions of this uplift were once taller than today's Rocky Mountains. The Trumbull County area was only slightly uplifted. Although the rise was not as drastic as other areas along the Atlantic seaboard, the rise was significant enough to increase precipitation in the area, even to the present day.

The Appalachian Uplift altered the county's agricultural potential through climatic change millions of years ago. Another more recent event occurred which altered the area through geological change. A lumbering slab of ice known as the Wisconsin Glacier plowed its way over the area between fifteen and twenty thousand years ago. The glacier deposited various sorts of sands, gravel, clays, and soils before its retreat. The residuals left behind grant our area today with its unique and varied soils, a predominate number of which are very well suited for agriculture.

Agriculture in the county was shaped by one final prehistoric act. Within a relatively close period to the retreat of the Wisconsin Glacier, prehistoric man appeared on the scene. It was these Native Americans who first developed agricultural methods unique to North America and in particular this area.

Just as the events during prehistoric times had a profound effect on agriculture, so did the early historic developments. For the time period before European encroachment of the area, Native Americans continued to develop agricultural practices suited to the county's unique environment. The European settlers learned from the Native Americans, adapting many of these practices and blending them with their European-style agriculture. In addition, the Native Americans left substantial acreage of cleared forestlands, which the Europeans later established, as their initial areas of agricultural activity.

Agriculture was primarily a subsistence activity for both the Native Americans and the European settlers. All food and fiber raised was either used on the farm or bartered for

essential goods within the area. Both the crudeness of the implements used and the cultivation practices employed limited the agricultural productivity of the early farmers. Due to these facts, only rarely did enough food or fiber surplus exist to allow for pioneer agriculture trade.

As the population increased with each new wave of settlement and the practice of farming continued to improve with each new technological advancement, agricultural output steadily increased. This progress eventually led to the emergence of an agricultural economy in the area. Water-powered mills such as: gristmills, saw mills, tanneries and breweries were constructed along the streams and rivers in the county. These developments were significant because not only did they provide the means for processing agricultural products, but also a market for the products as well. As the processes and products continued to expand during this time period, food was still the commodity of highest importance. The grinding of grain was given absolute priority over the other operations, such as lumber sawing. As the economy further developed, iron furnaces were constructed in the area. Using local ores and charcoal made from the area's trees, these furnaces allowed the local farming community to purchase iron implements such as plow points, harness gear, hand tools and nails. The local production freed the area's farmers from their dependency on products of the far away eastern cities. With this, the agriculture infrastructure began to close the circle of production.

About the same time, activity on the political side of frontier life began to establish the framework for the political structure of today. Ohio achieved statehood in 1803. Trumbull County was consolidated and declared Warren its county seat in 1810. The village of Niles was formed in 1834, Girard in 1837, and Hubbard in 1868. All of these individual acts combined resulted in the formation of multiple interconnected governmental units. Agricultural societies also emerged during the time-period. The Trumbull County Agricultural Society began in 1846, along with the first Trumbull County fair during the same year. The Trumbull County Farm Bureau was later established in 1919.

As these facilities for agricultural production, technologies for improved farming and individual agricultural societies were being established, the infrastructure essential for county agricultural trade were extended and improved. County roadways were laid-out, commonly running either north south or east west. These were courses for direct farm transport, often named for the landowners at either end. Even today, these roads continue to retain some of their pioneer heritage of the area with names like 'Barclay-Messerly Road' or 'Stroups-Hickox Road'.

The development of far-reaching transportation facilities paralleled the expansion of the United States and allowed local agricultural products to be marketed on an interstate and international level. Interstate roads and turnpikes, such as the National Road and the Kitanning Trail were the first of such transportation routes and constituted important early accesses to eastern markets. During the Canal Era (1825-1845), canals were a

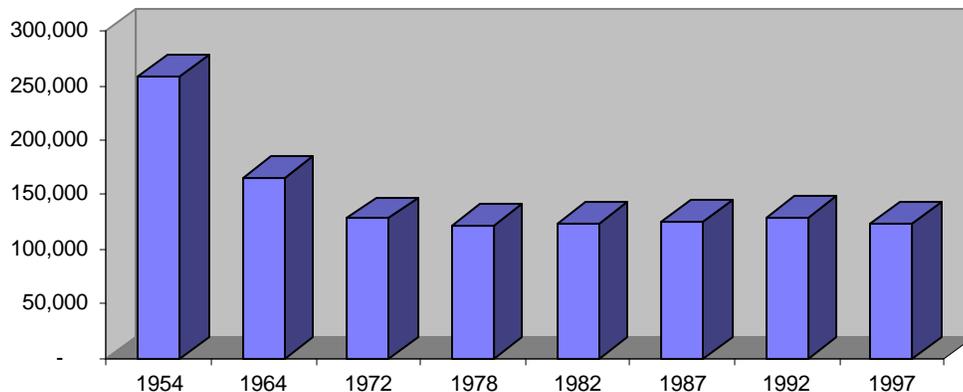
major improvement in market accessibility for local agricultural products. In 1839 the Pennsylvania & Ohio Canal was completed from Beaver River, Pennsylvania to Warren, Ohio. In 1841, the P & O Canal was completed from Warren to the Ohio Canal at Akron. After 1848, railroads assumed prominence in interstate trade of agricultural commodities across the country and within the county. The Canals had a relatively short life span in terms of standing as the most efficient form of transportation, but they established the precedence for local agricultural products and goods reaching an ever-increasing marketing area. Of the railroads which followed the canal period, the Cleveland & Pittsburgh RR constructed in 1851 and the Cleveland & Mahoning RR (1856) were the most significant. The 19th Century can be viewed as the time-period in which the framework for farming was established for the county, while the 20th century can be viewed as a time of continual refinement and change. During the past century agriculture in the county has been reshaped a number of times. Among the developments that dictated or facilitated these changes were: farm mechanization, decline of animal use, advent of self-propelled machinery, rise of agribusiness, invention of fertilizer, improved seed varieties, soil conservation practices, farm automation, international agricultural trade, and federal and state government assistance programs. All of these practices have helped to improve the practice of farming in the county, but not all trends of the past century have aided the agricultural community.

**AGRICULTURAL  
TRENDS IN TRUMBULL  
COUNTY**

## AGRICULTURAL TRENDS IN TRUMBULL COUNTY

As the practice of farming has continued to improve over the last century allowing more to be produced on a smaller area of land, urban land-uses (residential, commercial, and industrial) have competed with agricultural use. According to the Ohio Department of Agriculture, in the time span of just under 65 years, Trumbull County has seen over 180,000 acres of agricultural land transition to non-agricultural use. In 1935, the county had 302,322 acres of farmland, compared to 122,000 acres in 1998. This 60% reduction of farmland can be tempered slightly with an understanding of the inflation of farm acreage during the great economic depression of the 1930's. Between 1930 and 1935, a 21% increase in farmland occurred, jumping from 248,669 to 302,322. Even adjusting for this increase, the aggregate or overall picture shows a great reduction of land in farms for the county over the last 60 years. Comparing the 1954 numbers to the 1970 numbers provides a clearer comparison. In 1954, there were 258,094 acres of farmland, while in 1970 the total had dropped to 127,000. This is a 50% reduction of farm acreage in less than 30 years. (See Graph 1)

### Land in Farms by Acres Trumbull County



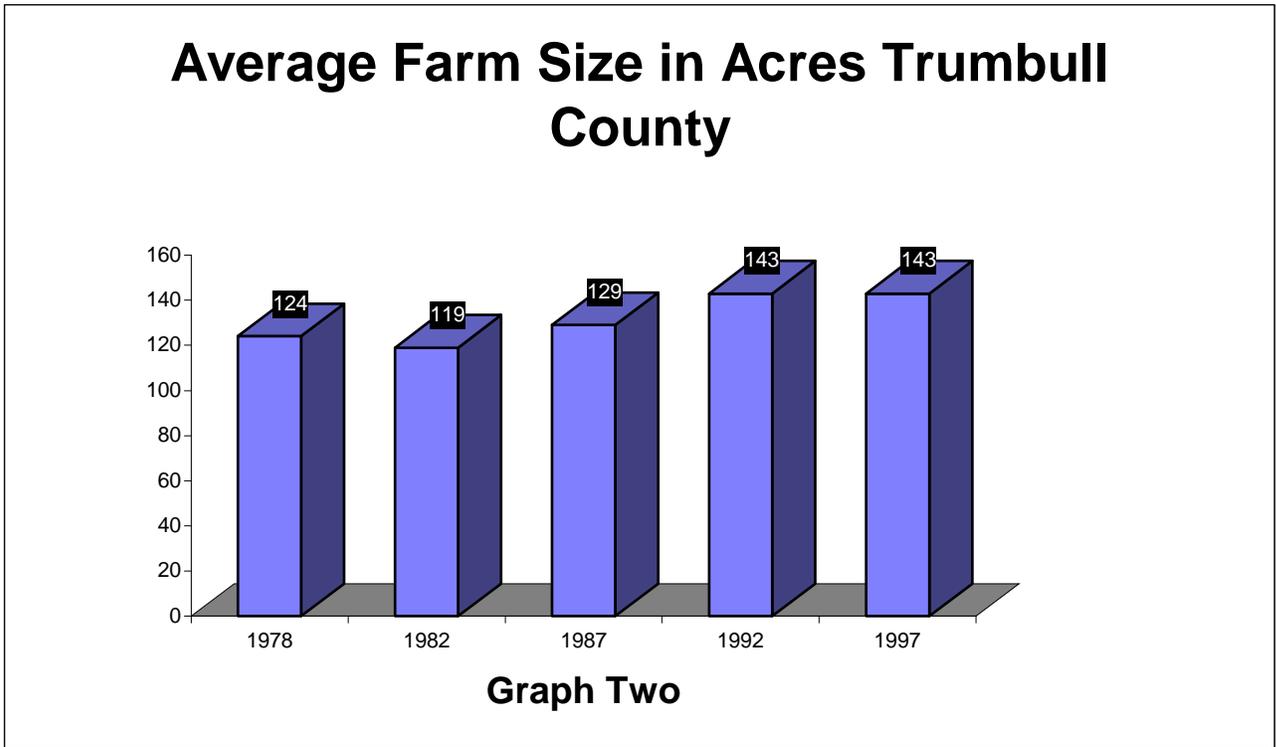
**Graph One**

Year	1954	1964	1972	1978	1982	1987	1992	1997
Acres	258,084	166,187	128,000	121,000	124,000	126,000	129,000	123,000

Source: Ohio Department of Agriculture

This drop reflects a trend experienced throughout the country as a whole, with a continuing migration from the rural to the urban centers of employment. As a nation, with the conclusion of World War II, the U.S. continued to increase its urban character.

During this time period, as both the land in farms and the number of farms continued to decline, another trend was appearing which helped mitigate the negative consequences of the prior two. As the number of farms and the total acreage continued to shrink, the average size of existing farms continued to increase. In 1935, the average size of a farm in Trumbull County was 71.8 acres. In 1954, this number jumped to 109.8, a 53% increase. By 1970, the average size had risen by 17% to an average of 127 acres. This trend has extended to the present day, with the average size of a farm in the county in 1998 standing at 139 acres. (See Graph 2)

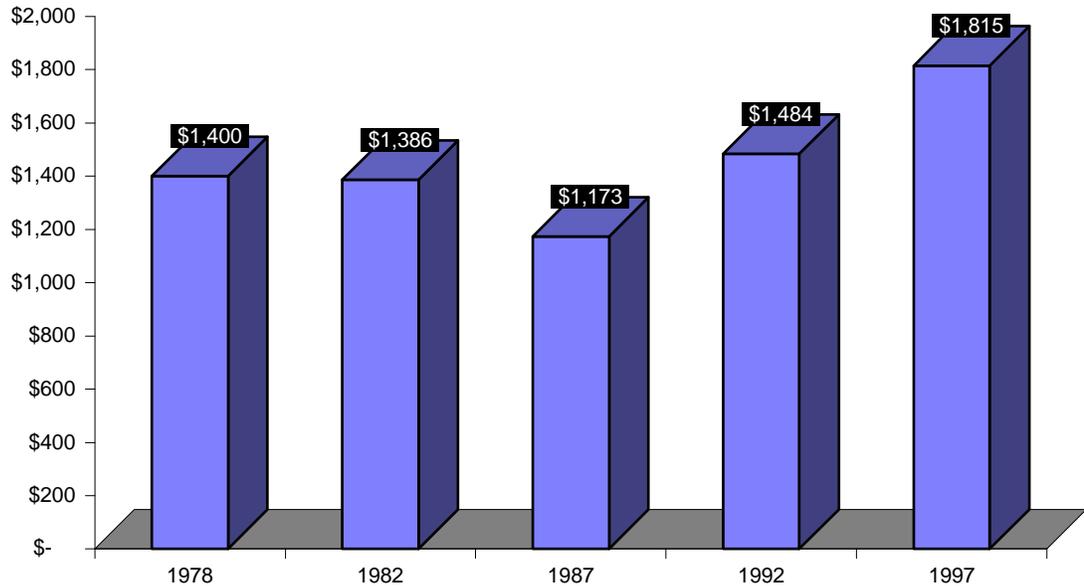


Year	1978	1982	1987	1992	1997
Average Size	124	119	129	143	143

Source \*Census of Agriculture

As the size of existing farms has continued to rise so does their productivity, with cash receipts increasing each year. In 1976, total cash receipts for agriculture in Trumbull County were \$14 million. In 1996 total cash receipts were \$35 million.

## Value per Acre Trumbull County



**Graph Three**

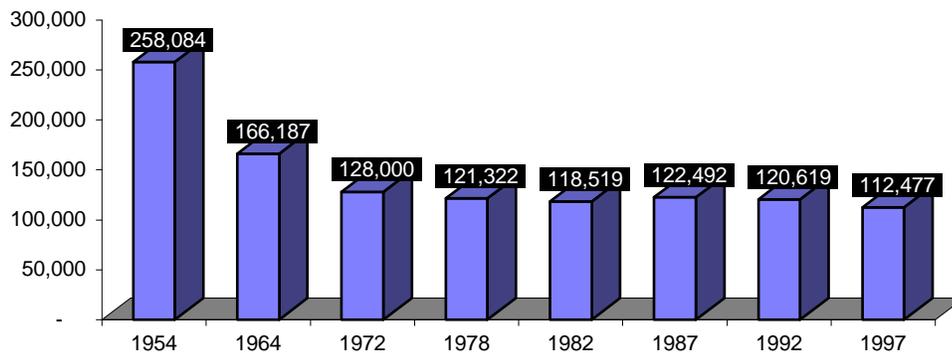
Year	1978	1982	1987	1992	1997
Value/Acre	\$1,400	\$1,386	\$1,173	\$1,484	\$1,815

Source: Census of Agriculture

Even after discounting for inflation, it becomes clear that agriculture remains as a vital sector in the economic make-up of Trumbull County.

Based upon these numbers the determination can be drawn, unquestionably, that the county has lost a large percentage of farms over the last 50 years, but when that time period is examined on a more contemporary time frame, the last 20 years, the numbers do not indicate such drastic reductions. According to the Ohio Department of Agriculture, there were 121,000 acres of farmland in the county in 1978. In 1997, the total acreage was 123,000, a 2,000-acre increase. (See Graph 1) This increase probably does not reflect a shift in the direction of farm acreage lost, but rather indicates a leveling of the trends during the 50's and 60's. The numbers provided by the Census of Agriculture support this assumption. In 1978, land in farms reported by the Census was 121,322, similar to Ohio Department of Agriculture numbers. (See Graph 4)

## Land in Farms by Acres Trumbull County



**Graph Four**

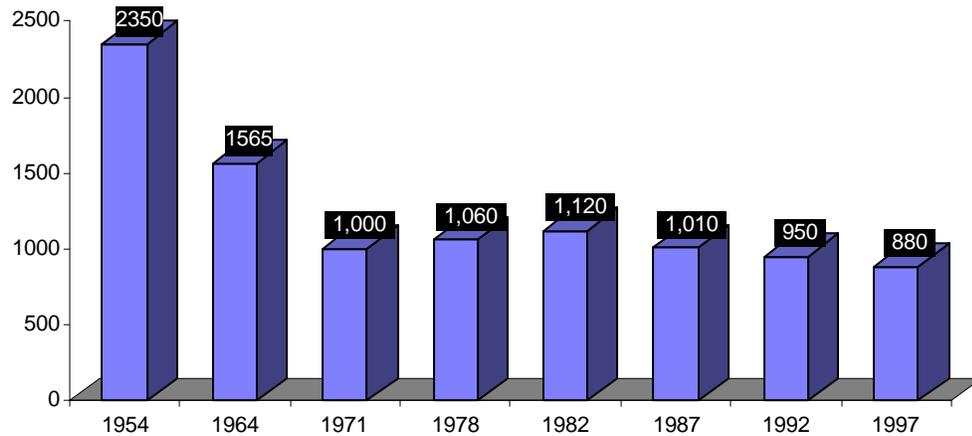
Year	1954	1964	1972	1978	1982	1987	1992	1997
Acres	258,084	166,187	128,000	121,322	118,519	122,492	120,619	112,477

Source: Census of Agriculture

The total in 1997, 112,477 total acres of farmland, is 10,000 acres less than the numbers posted by the ODA. Over the 20-year time-period, the Census indicates a loss of 9,000 acres for the county. This loss averages out to a total of 450 acres being lost every year. The question of, ‘which numbers better reflect the true picture of farmland in the county?’ will remain a matter of opinion, but what each of these sets of numbers do provide is a confirmation that the tremendous loss of farmland which transpired in the decades of the 50's and 60's, has stabilized during the last two decades. This is only one aspect of the changing agricultural make-up in the county. To better understand the affect this recent stabilization has had upon the Trumbull County agricultural community, a few other changes in the agriculture numbers which have been briefly referenced such as average size of farms, changing composition of farms, and number of farms will be highlighted focusing on the past 20 years.

The first of the areas to be examined is number of farms in the county. In 1978, the Ohio Department of Agriculture accounted for 1,060 farms throughout the county by 1997, that number had dropped to 880, or a loss of 180 farms. (See Graph 5)

## Number of Farms Trumbull County



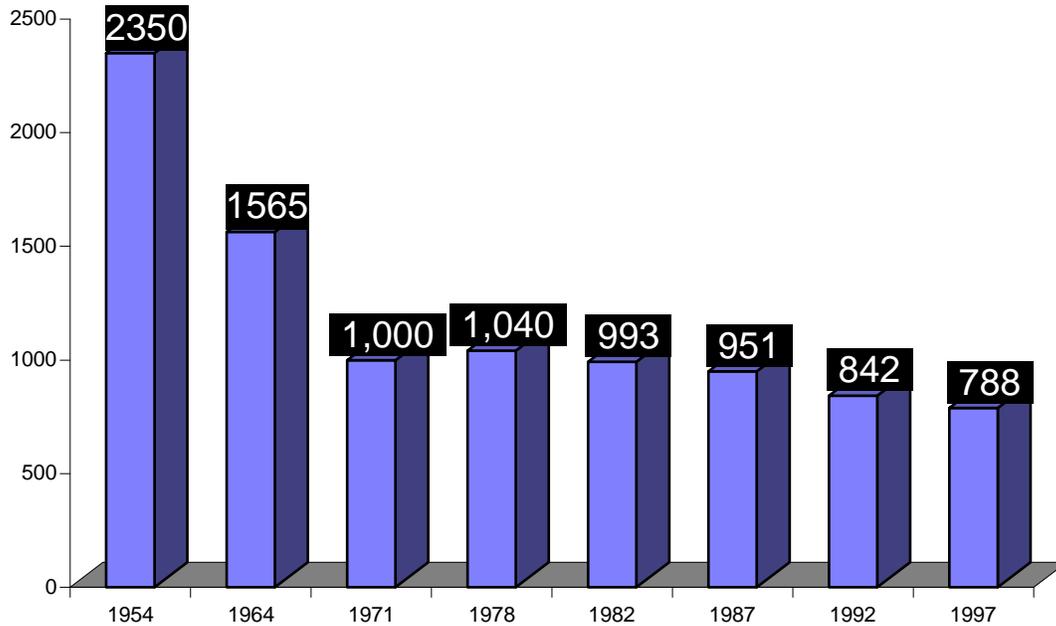
**Graph Five**

Year	1954	1964	1971	1978	1982	1987	1992	1997
Farms	2350	1565	1,000	1,060	1,120	1,010	950	880

Source: Ohio Department of Agriculture

By itself, the statistic is misleading; over the same time period 2,000 acres were gained in acreage. These numbers indicate that over the past 20 years the farms that remained became larger. A fact confirmed by the steady increase in average size of farms in the county. The numbers provided by the Census of Agriculture indicate a similar conclusion. In 1978, Census numbers found 1,040 farms in the county. (See Graph 6)

## Number of Farms Trumbull County



**Graph Six**

Year	1954	1964	1971	1978	1982	1987	1992	1997
Farms	2350	1565	1,000	1,040	993	951	842	788

Source: Census of Agriculture

The number by 1997 had dropped to 788, a reduction of 252 farms. This loss combined with the 9,000 acre reduction of land in farms for the time-period averages out to a per year loss of 13, 40 acre farms. A statistic that further indicates a stabilization of the drastic farmland loss experienced in the 1950's and 1960's, and the more recent trend of the reduction of number of small farms within the county.

The first two trends examined, Land in Farms and Number of Farms, point to an expansion of existing farms in the county over the past 20 years. An examination of the Average Size of Farms for the county during this time-period confirms this conclusion. In 1978, the average size of farms for the county was 124 acres, according to the Census of Agriculture. By 1997, that number had grown 15%, to 143 acres. (See Graph 2) Further evidence to support this conclusion is granted in table 1, Changing Composition

of Farms in Trumbull County. Within this table, farms for the county are broken into percentages based upon size. Before 1982, over 50 percent of all farms in the county were less than 50 acres in size. Since 1982, farms under 50 acres have only accounted for about 30 percent of all the farms in the county.

One final trend in farming for the county over the past 20 years will be scrutinized to provide a clearer picture of the agricultural environment. This last area is value per acre. In 1978, the value per acre was \$1,400. While in 1997, the value per acre had risen to \$1,815. This translates to a 30% appreciation over 19 years or a 1.8-% increase per year. The rate is below the expected 3% inflationary rate.

### **Changing Composition of Farms in Trumbull County**

<b>Size in Acres</b>	<b>1978</b>	<b>1982</b>	<b>1987</b>	<b>1992</b>	<b>1997</b>
<b>1 to 9</b>	14.1%	14.0%	6.0%	5.5%	6.6%
<b>10 to 49</b>	46.6%	41.7%	24.8%	24.1%	26.4%
<b>50 to 179</b>	28.2%	27.1%	49.1%	48.3%	44.5%
<b>180 to 499</b>	3.8%	4.8%	17.2%	18.3%	18.3%
<b>500 to 999</b>	0.6%	0.8%	2.2%	3.2%	3.0%
<b>1000 plus</b>	0.2%	0.3%	0.6%	0.6%	1.1%

\*Census of Agriculture

From the analysis provided by the current trends within the agricultural community of the county, a number of generalized statements emerge:

- The total acreage of land in farms has stabilized considerably relative to the dramatic reductions experienced during the decades following the Second World War, but total acreage does continue to moderately decline.
- Total number of farms in the county has continued to decline at a rate that outpaces the decline in total land area.
- The average size of farms throughout the county has continued to steadily increase.
- The average value of an acre of farmland has risen at a rate below the inflationary rate, with a 1.8% per year increase.

The purpose of this plan is to preserve farmland in Trumbull County, but based upon the trends indicated, the problem does not seem apparent. The number of farms continues to decline, but existing farms throughout the county expanding compensate the lost acreage. In addition, the average price of an acre of farmland has appreciated only at a minor rate,

thus making acquiring land for farming accessible for those interested. The necessity for this preservation plan could be questioned, but only on the surface. The numbers provided within the trends examined apply as averages for the county as a whole. Townships such as Kinsman, Gustavus and Greene tend to soften the numbers emerging from townships such as Bazetta, Champion and Newton where farmland preservation is a vital pressing need.

The aim of this plan created by the Task Force is to identify the areas in the county currently most in need of farmland preservation and recommend to those areas possible solutions through legislation and other avenues best suited to attain their desired ends. The plan will provide a better understanding to all townships of the agricultural situation. From this bench marking, each township will be able to gauge the current level of agricultural activity and implement seeds of protection, which will be able to best deliver a future most desired by each township and ultimately for the entire Trumbull County area.

### **Current Agriculture Use Valuation (CAUV) Program Participation Rate**

The analysis provided in the previous Trends section displays that agriculture is still a vital and important part of the economic mix in Trumbull County. The industry has shifted from a large number of small individual farms to a smaller number of larger farms. This shift is a reflection of a larger macro-economic shift of economies of scale taking place across most sectors of the economy. The small farm owned by the individual is being confronted with circumstances faced by independent grocers or local hardware retailers, mounting pressure and competition from national corporations who possess the ability to offer greater selection at a reduced cost. What has happened within these sectors of the economy is happening to the agricultural industry. This reality is beyond the ability of the Task Force to reverse. A reality that does not necessarily translate to the elimination of the small farm, only a rethinking of its place in the industry. This statement can be reinforced by an examination of CAUV participation within the County over the history of the program.

In 1982, when the program was in its infancy, a total of 49,141 acres were enrolled. Six years later, the number had jumped by 129 percent to 112,677 acres. In 1995, the number jumped an additional 18 percent, to 133,124. During these years, existing farms enrolling in the program and not new farms being added to the County, mostly account for the increases in acreage. In 1998, the last year for CAUV totals, the number had increased by a slight 1.8 percent, to a total of 135,578 acres. Although the increase in the past three years has been minimal, the fact remains that it has been a positive change and not a negative change. According to the CAUV participation rate, there has been no loss of farm acreage in the County, but this is true only on the aggregate. Further examination brings a clearer understanding.

The County has not seen a reduction in CAUV acreage over its history, but for individual townships, this can not be said. Out of the 24 townships and 1 village (Lordstown) examined within the county; six units have felt a reduction in CAUV participation. These areas are Fowler, Greene, Bristol, Mecca, Bazetta, and Warren. Of these areas, only one township, Warren, can be classified as urbanized. The other five townships are

all located in the middle to northern tier of the county where agriculture is predominate. Bazetta experienced the largest drop, -4.6 percent, which can be explained by the growth of Cortland, and with only 11.8 percent of the land area enrolled in the CAUV program, the township has become a suburban/urban township. The growth surrounding the city of Cortland can also help explain the -2.9 percent drop in Mecca, and the 1.7- percent drop in Fowler. These two townships with 31.4 percent and 49.4 percent of the total land enrolled in CAUV respectively have remained essentially rural. It should be noted that 29 percent of the land area in Mecca is in water, which increases the portion of land devoted to agriculture to 44.2 percent. These are townships, which could benefit from the tools within this plan if the retention of agriculture is self-determined as important. The two remaining townships, Bristol and Greene, both in the northern tier and both with over 40 percent of land-use enrolled in CAUV, are rural townships. During the 1990's, 106 new residential building permits were issued in Bristol, while 34 were issued in Greene. This new home construction may account for the reduction in CAUV participation. Both townships should contemplate a cost-benefit analysis of the various tools if the protection of agriculture is a priority for the township.

A final area in which the County's CAUV participation rate can be useful to the Farmland Preservation Plan is determining the character of the townships. An examination of the Township Rankings by CAUV Participation Table provides this determination. Eleven townships have over 40 percent of their total available land enrolled in the CAUV program, which indicates rural townships. All but one, Newton lies in the middle to northern tiers of the County, and all but Newton rank in the bottom half of new residential building permits issued during the 1990's. These townships: Gustavus, Kinsman, Johnston, Newton, Mesopotamia, Vernon, Fowler, Hartford, Greene, Bloomfield, and Bristol have not been subjected to development pressures like the various townships in the southern tier. The lack of pressure felt by these townships from development does not preclude the townships from the need of a retention program, but rather the opportunity for a proactive strategy still exists. The establishment of a well-designed program geared towards the retention of farmland would be the most effective method of protecting the agriculture industry in the future. Newton Township as noted is an exception to these eleven townships. The township has felt the pressure from development. Newton is ranked in the top four in CAUV participation, but the top five in building permits issued. This ranking further stresses the need for a retention program if the township wants a future, which includes farming.

A second grouping of townships can be classified as rural/suburban with 20 to 40 percent of total land area enrolled in the CAUV program. The second grouping of townships

include Southington, Farmington, Mecca, Lordstown Village, Braceville, Brookfield, and Champion. These areas are all in a unique position. Agriculture is an active land-use, but has and will feel the pressure of residential, suburban development. Within these areas, determination of the future design of the communities is needed. This determination will center upon the balance between agricultural and residential development. The utilization of a number of the tools available within this plan would allow for an orderly and predictable co-existence of these two land uses.

The final grouping of townships can be classified as suburban/urban with fewer than 20 percent of the total land area enrolled in the CAUV program. These townships include Vienna, Warren, Hubbard, Bazetta, Liberty, Weathersfield, and Howland. Three of the townships Liberty, Weathersfield, and Howland with fewer than five percent of their land-use enrolled in CAUV would gain little benefit from farmland retention programs. The remaining four townships, Vienna, Warren, Hubbard, and Bazetta should focus their efforts on the contiguous agricultural clusters within the respective townships if farmland retention stands as a priority.

### **Township Ranking by CAUV Participation**

<b><i>Township</i></b>	<b><i>Total Acres</i></b>	<b><i>CAUV Acres</i></b>	<b><i>Percent CAUV</i></b>
Gustavus	16000	12876	80.5%
Kinsman	16000	10934	68.3%
Johnston	16000	9424	58.9%
Newton	14740	7599	51.6%
Mesopotamia	16000	8073	50.5%
Vernon	16000	7926	49.5%
Fowler	16000	7910	49.4%
Hartford	16000	7689	48.1%
Greene	16000	7515	47.0%
Bloomfield	16000	6926	43.3%
Bristol	16000	6814	42.6%
Southington	16000	6041	37.8%
Farmington	15435	5299	34.3%
Mecca	16000	5018	31.4%
Lordstown Village	16000	4987	31.2%
Braceville	16000	4146	25.9%
Brookfield	16000	3717	23.2%
Champion	16000	3557	22.2%
Vienna	16000	2669	16.7%
Warren	10006	1609	16.1%
Hubbard	14150	2025	14.3%
Bazetta	14320	1690	11.8%

Liberty	13092	561	4.3%
Weathersfield	10345	336	3.2%
Howland	11113	237	2.1%

\*Trumbull County Auditor's Office

## Changes in CAUV Acreage per Township

Year	1982	1988	Percent	1995	Percent	1998	Percent
<b>Township</b>			<i>Change</i>		<i>Change</i>		<i>Change</i>
<b>Gustavus</b>	4,487	11,586	158.2%	12,820	10.7%	12,876	0.4%
<b>Kinsman</b>	4,982	9,687	94.4%	10,786	11.3%	10,934	1.4%
<b>Johnston</b>	2,948	8,637	193.0%	9,278	7.4%	9,424	1.6%
<b>Mesopotamia</b>	1,836	6,625	260.8%	7,816	18.0%	8,073	3.3%
<b>Vernon</b>	1,752	6,686	281.6%	7,661	14.6%	7,926	3.5%
<b>Fowler</b>	3,491	6,806	95.0%	8,047	18.2%	7,910	-1.7%
<b>Hartford</b>	2,629	6,449	145.3%	7,320	13.5%	7,689	5.0%
<b>Newton</b>	2,500	5,275	111.0%	7,267	37.8%	7,599	4.6%
<b>Greene</b>	3,397	6,907	103.3%	7,720	11.8%	7,515	-2.7%
<b>Bloomfield</b>	2,664	5,839	119.2%	6,842	17.2%	6,926	1.2%
<b>Bristol</b>	3,349	6,059	80.9%	6,855	13.1%	6,814	-0.6%
<b>Southington</b>	1,383	4,184	202.5%	6,031	44.1%	6,041	0.2%
<b>Farmington</b>	2,778	4,996	79.8%	5,257	5.2%	5,299	0.8%
<b>Mecca</b>	2,106	4,172	98.1%	5,167	23.8%	5,018	-2.9%
<b>Lordstown V.</b>	2,052	3,754	82.9%	4,818	28.3%	4,987	3.5%
<b>Braceville</b>	1,121	2,983	166.1%	4,042	35.5%	4,146	2.6%
<b>Brookfield</b>	1,164	2,520	116.5%	3,632	44.1%	3,717	2.3%
<b>Champion</b>	1,359	2,259	66.2%	2,991	32.4%	3,557	18.9%
<b>Vienna</b>	1,417	2,052	44.8%	2,536	23.6%	2,669	5.2%
<b>Hubbard</b>	171	1,427	734.5%	1,836	28.7%	2,025	10.3%
<b>Bazetta</b>	324	1,498	362.3%	1,772	18.3%	1,690	-4.6%
<b>Warren</b>	708	1,436	102.8%	1,633	13.7%	1,609	-1.5%
<b>Liberty</b>	349	427	22.3%	485	13.6%	561	15.7%

<b>Weathersfield</b>	174	276	58.6%	276	0.0%	336	21.7%
<b>Howland</b>	-	137	1370.0%	236	72.3%	237	0.4%
<b>Total</b>	<b>49,141</b>	<b>112,677</b>	<b>129.3%</b>	<b>133,124</b>	<b>18.1%</b>	<b>135,578</b>	<b>1.8%</b>

\*Trumbull County Auditor's Office

Most Active Townships Based on Residential Building Permits Issued
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<b>Year</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>Thru -Sept 99</b>	<b>Total</b>
<b><i>Township</i></b>											
<b>Howland</b>	43	34	65	54	54	69	76	84	86	62	<b>627</b>
<b>Cortland</b>	52	47	46	50	50	39	46	50	37	36	<b>453</b>
<b>Champion</b>	42	35	38	34	34	41	47	57	42	23	<b>393</b>
<b>Bazetta</b>	27	22	28	46	49	47	40	39	39	23	<b>360</b>
<b>**Newton</b>	16	16	18	16	26	26	23	22	15	29	<b>207</b>
<b>**Hubbard</b>	12	8	10	21	40	27	27	24	9	27	<b>205</b>
<b>Liberty</b>	23	18	17	22	18	17	21	20	17	14	<b>187</b>
<b>Weathersfield</b>	15	15	12	14	20	19	17	29	15	24	<b>180</b>
<b>Southington</b>	10	10	10	21	15	18	17	25	20	16	<b>162</b>
<b>Farmington</b>	8	5	17	9	20	15	16	10	25	19	<b>144</b>
<b>Lordstown</b>	7	8	9	10	12	16	20	28	18	14	<b>142</b>
<b>Vienna</b>	14	11	17	15	18	15	11	16	17	6	<b>140</b>
<b>Brookfield</b>	10	9	10	12	13	10	20	18	20	20	<b>142</b>
<b>Mecca</b>	7	5	8	16	13	14	12	12	15	14	<b>116</b>
<b>Johnston</b>	10	11	14	15	9	12	7	7	14	15	<b>114</b>
<b>Braceville</b>	10	7	4	7	15	10	16	26	8	10	<b>113</b>
<b>Bristol</b>	10	9	10	12	13	9	8	12	15	12	<b>110</b>
<b>Mesopotamia</b>	6	5	9	5	7	16	14	13	5	13	<b>93</b>
<b>Fowler</b>	9	2	6	11	0	13	4	11	15	7	<b>78</b>
<b>Hartford</b>	7	5	7	7	6	11	11	3	11	9	<b>77</b>
<b>**Warren</b>	6	5	5	4	2	2	6	3	7	28	<b>68</b>
<b>Vernon</b>	2	4	2	3	9	5	6	9	5	12	<b>57</b>
<b>Kinsman</b>	5	3	3	2	4	4	8	2	11	2	<b>44</b>
<b>Bloomfield</b>	4	2	3	2	5	6	3	7	4	7	<b>43</b>
<b>Greene</b>	5	4	0	6	3	1	1	5	8	6	<b>39</b>
<b>Gustavus</b>	0	1	4	5	2	1	6	5	8	3	<b>35</b>
<b>Total</b>	<b>360</b>	<b>301</b>	<b>372</b>	<b>419</b>	<b>457</b>	<b>463</b>	<b>483</b>	<b>537</b>	<b>486</b>	<b>451</b>	<b>4329</b>

\*Based on Building Department Records Through September 1999

\*\* Includes City

## **Existing and Future Limits of Development**

To delineate those areas of the county that should be prioritized for farmland preservation, it is necessary to identify the areas of the county that are already developed and areas that are likely to develop in the next 20 years. The areas that are already developed in land uses such as residential, commercial and industrial are not now used for agricultural purposes so no preservation is required or possible. The areas projected to develop in the next 20 years do include some farmlands. However, it is to the benefit of the entire county to allow for some new development in these areas located adjacent to the already-developed areas.

It should be noted that over one-half of Trumbull County's area is not included in the existing and future development areas, leaving more than 350 square miles for farmland and open space conservation. Additionally, those areas in the transition zone between existing and future development will be given a high priority in the proposed Purchase of Development Rights (PDR) Program. Areas beyond the transition zone are historically rural areas that would not be cost effective to develop and are better suited to either agriculture or public open spaces.

The staff of the Planning Commission has relied on several different sources to determine the limits of existing and future development in Trumbull County. The earliest source used was a map from the Trumbull County Open Space and Outdoor Recreation Study from 1972 that showed the Generalized Existing and Future Urban Area Boundaries for 1970, 1980 and 1990. The staff also reviewed the Existing Land Use Map and Proposed Future Land Use Map, 1990, in the Trumbull County Land Use and Housing Analysis and Plan from 1977. The other plan reviewed was the Rural Development Plan, 1983, which included population density maps from 1960, 1970, 1980, 1990 and 2000. Finally, the staff prepared maps showing the location of all water and sanitary sewer districts in the county.

The 1972 recreation plan shows three different boundaries for the county's urbanized area. The smallest area defined in this map is the existing urbanized area for 1970. This boundary was based on a population density map also prepared for the open space study and existing land use maps. Generally, the urbanized area included the Cities of Warren, Girard, Niles, Cortland, Hubbard and Newton Falls, all of the Village of McDonald, part of the Village of Lordstown near the General Motors Plant, and parts of Liberty, Weathersfield, Howland, Champion, Hubbard, Newton and Warren Townships.

The next largest area defined on the 1972 map was the projected 1980 urbanized area boundary. This map was based on population projections prepared by the Planning

Commission for 1980 and future land use proposals. Due to the historically rapid population growth and urbanization that had occurred up to 1972, the staff projected continued rapid growth of population and urban areas by 1980. This boundary added urban areas projected for large areas of Liberty, Brookfield, Vienna,

Howland, Champion, Bazetta, Newton, Weathersfield, Hubbard, and Warren Townships. Based on a review of this boundary, it can be concluded that some, but not all, of the projected suburbanization did occur by 1980.

The 1990 boundary on this map extends the projected urbanized area boundary well beyond even suburban areas into rural areas of the county. Clearly the Planning Commission was projecting a continuation of rapid population growth and suburbanization that did not in fact occur. Unfortunately, Trumbull County's local economy was devastated in the 1980's by steel plant closings and a national recession. Out-migration and small household sizes led to a decrease in population from 1980 to 1990, instead of the rapid growth projected in 1972. The projected 1990 urbanized area boundary in the 1972 study is not very useful for planning in 1999, except as an example of historical planning theories from the 1970's.

Summarizing the 1972 map of urban area boundaries, it is clear that the county was projecting rapid growth that would eventually spread over one-half of the county's total area. While later studies prepared by the Planning Commission emphasized farmland preservation, this study obviously was not promoting that concept. Part of the study promoted open space preservation related to recreation facilities, such as wildlife and public hunting areas, state and local parks, and ecologically sensitive areas. In 1999 nine years later than the projected 1990 boundary, the urbanized area is clearly smaller than this projection and should not be projected that far now to preserve valuable farmland.

Next, the staff reviewed the Future Land Use Map for 1990, prepared in 1977 for the Land Use Study. This map was prepared after the Existing Land Use Map and Inventory for 1975 was completed. This is a fairly realistic view of development that has actually occurred since 1975. The Planning Commission projected that residential development would spread out into suburban townships surrounding the urban axis from Warren to Youngstown and also around Cortland and Newton Falls. While completed only five years after the 1972 recreation study, this study shows much more sensitivity towards the county's agricultural areas and ecologically sensitive areas. Very striking on the Future Land Use Map is the huge amount of acreage projected for public open spaces along flood plains, rivers, creeks and Mosquito Creek Reservoir.

While the proposed Future Land Use Map for 1990 does not include all developments that have occurred since 1975, and there are substantial proposals for public use that are not economically feasible to implement, the map is very useful for the Farmland Preservation Plan. The map shows that the industrial development that occurred near the Youngstown-Warren Regional Airport was very accurately predicted. However, other areas, such as Lordstown Village, have developed substantially more industrial uses than

projected. The staff of the Planning Commission in 1999 is very much in favor of the extensive open space areas projected for the future, particularly for farmlands.

In the late 1970's and early 1980's, the Planning Commission did an extensive review of the rural areas of the county, with an Agricultural Study and the Rural Development Plan. While the major focus of the Rural Development Plan was to identify potential development sites in the rural areas, the study also emphasized farmland and open space preservation. One of the most useful graphics in this study today are the maps showing population density for 1960, 1970, 1980, 1990, and 2000. Existing population counts from the U.S. Census were used for 1960, 1970 and 1980, while Planning Commission projections were used for 1990 and 2000.

For the purposes of the Rural Development Plan, population densities were classified as either rural, urban-rural fringe or urban. Rural areas were defined as those with less than 100 persons per square mile. The urban-rural fringe area was defined as having between 100 and 1,000 persons per square mile. The urban area on these maps had more than 1,000 persons per square mile. In retrospect, the urban-rural fringe area may have been too broadly defined as it includes both suburban areas and mostly rural areas of the county.

Based on a review of these maps, the urban areas defined are most useful for the preparation of the 1999 map for the Farmland Preservation Plan. The map for 1960 shows the traditional urban corridor that has extended from Warren to Youngstown for most of this century. Also shown as urban areas are Newton Falls and Hubbard. The majority of present-day suburban townships are within the urban-rural fringe area of this map, and there is a substantial area shown as entirely rural, including Lordstown, which was a township in 1960 before General Motors arrived.

By 1970 the map shows that there was an increase in the urbanized area that started to include some suburbanized townships. Areas of Howland Township, Liberty Township, and other suburban areas begin to show up in the urban range. The most striking feature of this map is the appearance of Cortland as an island of urban area within the urban-rural fringe area. This map also shows a shrinking of the rural category, with Lordstown and parts of northern Trumbull County added to the urban-rural fringe.

The 1980 population density map shows the county very much as it is today because there has been relatively less development since than compared to before 1980. On this map, the Cortland area now appears as more of a peninsula attached to the urban area instead of standing alone as a satellite city. Much of the southern two tiers of townships appear in the urban category, along with parts of Cortland, and Bazetta and Champion Townships. However, there are some parts of Newton, Braceville and Weathersfield Townships and Lordstown Village in the fringe area. By 1980 only the northernmost townships appear in the entirely rural category.

The projections for 1990 and 2000 did not greatly affect the appearance of the population density map after 1980. These maps do show some additional urban areas in the

suburban townships. However, the projections for population growth do not show any significant encroachment of urban areas into the urban-rural fringe area. Also, the rural areas showed very little change in these maps and the population levels should remain static for some time.

Finally, the staff reviewed the location of water and sewer districts in the county because the extension of water and sanitary sewers is considered a prime element in new development. While some commercial or industrial uses have occurred in a spotty fashion in rural areas over the years, extensive new development is not likely without water lines and sanitary sewers. The staff of the Planning Commission has addressed the issue of controlling water and sewer extensions as a means to preserve farmlands in the county. Currently, these facilities can only be extended within the existing water and sewer districts.

The maps of existing water and sanitary sewer districts very closely parallel the urbanized area of the county for several reasons. First, these areas would not have been able to develop as intensely as they have without these facilities. Secondly, areas without these services will be unable to develop extensively using water wells, septic tanks or other means. The cost of extending these facilities into currently rural areas is too prohibitive and not considered sound planning. The staff of the Planning Commission would like to encourage new development, but only in areas now served by water and sewer or in close proximity to existing facilities.

There are several different sources for water systems in Trumbull County. The City of Warren utilizes Mosquito Creek Reservoir for its source of water with a filtration plant located in Bazetta Township. Warren serves not only the entire city with water, but also several surrounding townships through Service Area Agreements with Trumbull County. Most of Champion Township and parts of Warren Township and Howland Township are served with water originating from the reservoir.

The City of Niles is a partner with the City of Youngstown in the Mahoning Valley Sanitary District (MVSD), which draws its water from Meander Reservoir in southern Trumbull County and northern Mahoning County. All of the City of Niles is served from this source as well as communities that are sold water from MVSD: the City of Girard, Villages of McDonald and Lordstown, and parts of Weathersfield, Liberty, and Howland Townships. It should be noted that the City of Girard has recently acquired the former Liberty Lakes (now known as the Girard Lakes) and is planning to develop its own water system apart from MVSD.

Trumbull County owns a water system, which was formerly known as the Four-Township Water System. The county buys water from other sources and sells it to customers in township areas. One of the primary sources for this water system is the Shenango River Reservoir to the east in Pennsylvania. The county also buys water from Warren, Niles and Youngstown. Townships served by Trumbull County's water system include Brookfield, Hubbard, Vienna, Liberty and Howland Townships.

Three smaller communities in Trumbull County have their own water systems, which primarily serve those municipalities. Cortland has a water well field, which provides the water for its system located almost entirely within the city limits. Newton Falls draws water from the West Branch of the Mahoning River, which services Newton Falls and surrounding areas in Newton and Braceville Townships. West Farmington also has a small system, which services the village.

There are no immediate plans to expand any of the water districts in the county. Many districts, particularly in township areas, include parts of the community not currently served by existing water lines. Three of the newest water districts, in Braceville and Warren Townships, are not nearly serviced by all of the water lines that could be constructed there. It is unlikely that any new districts would be established in the near future although districts have been proposed for parts of Southington and Fowler Townships.

For sanitary sewers, there is similar geographic coverage in the county, many times coinciding with existing water districts. The major cities and the county all have wastewater treatment plants that serve these communities and outlying areas. The City of Warren's wastewater system has a treatment plant on the Mahoning River in the southern part of the city. The Warren system services the city and parts of Champion and Warren Townships and Lordstown Village.

Trumbull County has a wastewater treatment plant on Mosquito Creek in Howland Township. The county serves customers in Howland and Vienna Townships from this plant. The county also has a treatment plant in Brookfield Township near the Shenango River, which serves parts of Brookfield Township. There have been proposals to extend each of these sanitary sewer systems although there are limits based on topography and costs. Currently, all of Brookfield and Howland Townships, and parts of Vienna Township are within approved sewer districts.

Other local municipalities, including Girard, Niles and Newton Falls operate other wastewater systems. The City of Girard system serves the city and parts of Liberty Township. The Niles system serves that community and is to be extended into Weathersfield Township to serve the Hilltop neighborhood. Newton Falls serves the municipality as well as parts of Newton and Braceville Townships.

There is also a wastewater treatment plant near Meander Creek Reservoir, which serves parts of Weathersfield Township. The City of Cortland once had its own wastewater treatment plant, which discharged treated wastewater into Mosquito Creek Reservoir. However, the city is currently linked to the county's wastewater treatment plant along Mosquito Creek in Howland Township.

Based on a review of existing sanitary sewer districts, it appears there is substantial expansion of sanitary sewer systems that could still occur without creating new districts. Large portions of Brookfield, Liberty, Braceville, Newton, Champion, Bazetta, Mecca, Vienna, Hubbard and Warren Townships could be served without creating new districts.

While there is a need for such extensions, including mandates from the Ohio EPA, it appears that the cost of constructing new sewers is the biggest obstacle. It is not recommended to create any new districts or extend sewers beyond existing boundaries, which would limit any extensive development outside these areas.

On the following page is a map showing the proposed limits of development in Trumbull County. The staff of the Planning Commission has prepared this map based on the previously described criteria to provide a guide for preserving farmland through setting boundaries for future development. The red area on the map shows the approximate limits of development in 1999, including existing residential, commercial and industrial land uses. The yellow area shows projected new development that could occur by the year 2020, based on the information reviewed and analyzed by the staff and current trends. Blue areas are the environmentally sensitive areas near the urban area that should be preserved. Open space areas not colored on the map should be preserved for agriculture, recreation or other open space uses.

The 1999 development boundary was modified somewhat from the 1972-projected boundary for 1990. Not all areas originally projected to develop by now have, and certain smaller areas that were not projected to grow have. The existing development area includes all of the major cities in the county, parts of Lordstown, all of McDonald Village, and all of Liberty and Hubbard Townships. Most of Howland, Vienna, Brookfield, Weathersfield and Warren Townships are considered to be already developed. Smaller parts of other townships are within this area, including Newton, Braceville, Champion and Bazetta Townships. All of the area is contiguous, except for the City of Cortland and Newton Falls separated by some undeveloped land.

The projected development boundary for 2020 closes the gaps between the urbanized area and Newton Falls and Cortland and generally spreads projected development less than two miles further out than the current boundary. This projection anticipates that the local economy will remain healthy, new residential development will occur, and water and sewer extensions will be constructed within existing districts. While the county is in full support of farmland preservation, the Planning Commission also supports some orderly new development in areas adjacent to the existing developed area.

The new development is expected to occur in the following areas: Brookfield, Bazetta, Fowler, Mecca, Champion, Southington, Braceville, and Newton Townships and Lordstown Village. In Bazetta and Fowler Townships, new development is likely to occur related to the Youngstown-Warren Regional Airport and the City of Cortland. Champion Township is a prime development area for new residential growth although some environmental factors such as wetland areas may limit this growth somewhat. Southington Township has water problems, which may require water line extensions, which could lead to some new development. Other new development in the southern part of the county would follow current trends and infrastructure extensions.

The staff is recommending that the projected development limits be flexible and more carefully analyzed during the preparation of the proposed update to the Trumbull County Comprehensive Plan. Additionally, since there are prime farmland soils in the projected

development area, it is recommended developments be clustered to preserve areas with prime soils for agricultural uses. Also in this area the county could prioritize this zone for Purchase of Development Rights since this is the area where the most competition between agriculture and development will take place.

Another limiting factor in the development of the boundary was the existing agricultural areas of Trumbull County. There are some areas near the existing development limits, such as parts of Newton and Warren Townships, where active farms are still operating. The Planning Commission is promoting the continuation of these farming uses although it is possible that there will eventually be development pressures at or near these areas. Environmental conditions also played a major role in limiting the development. The county is not in favor of any extensive development near Mosquito Creek, Mosquito Creek Reservoir or Meander Reservoir, due to flood plain and water supply considerations.

The finalized map shows that over one-half of Trumbull County can reasonably be expected to be available for open space uses, particularly agriculture. In general, the northern half of the county remains rural and is not expected to develop anytime soon for reasons stated previously. Since this is the area with the greatest concentration of farmland acreage, there is not a substantial threat to farmland preservation through controlled, orderly development near existing developed areas. In the southwest part of the county, it should be possible to retain much of the existing agricultural uses, although there is a potential for new development beyond the time frame described in this analysis.

# SOILS

## **Identification & Location of Prime Farmland Soils (USDA rating system)**

All maps, tables, lists and other information provided in this section do not constitute a recommendation for a particular land use, and were derived in their entirety from the Soil Survey of Trumbull County, Ohio, March, 1992.

### **Prime Farmland**

The definition of prime farmland according to the U.S. Department of Agriculture (USDA) is the land that is best suited to food, feed, forage, fiber and oilseed crops. It may be cultivated land, pasture, woodland, or other land, but it is not urban or built-up land or water areas. It is either available for or used for food or fiber crops. The soil qualities, growing season, and moisture supply are those needed for a well managed soil to produce a sustained high yield of crops in an economic manner. Prime farmland produces the highest yields with a minimal expenditure of energy and economic resources, and farming it results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges from 0 to 6 percent. More detailed information is available at the local Soil Conservation Service office.

### **Specific Types of Prime Farmland Soils**

In Trumbull County, 75 percent, or 284,275 acres of the total acreage available is considered prime farmland soils. The complete list of specific soil types, which have been classified by the USDA as prime farmlands in the Trumbull County Soil Survey, are listed below. Urban or built up areas of the soils listed are not considered prime farmlands. See definition of prime farmlands at the beginning of this section. **An asterisk \* indicates that this is a *Hydric soil* and therefore may contain wetlands.**

<u>Map Symbol</u>	<u>Soil Name</u>
CaB	Cambridge silt loam, 2 to 6 percent slopes.
CfB	Canfield silt loam, 2 to 6 percent slopes.
CnA	Chili loam, 0 to 2 percent slopes.
CnB	Chili loam, 2 to 6 percent slopes.
*Ct	Condit silt loam ( <i>where drained</i> )

*Da	Damascus loam ( <i>where drained</i> )
DrA	Darien silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
DrB	Darien silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
EhB	Ellsworth silt loam, 2 to 6 percent slopes.
EhB2	Ellsworth silt loam, 2 to 6 percent slopes, eroded.
FcA	Fitchville silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
FcB	Fitchville silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
GfB	Glenford silt loam, 2 to 6 percent slopes.
HaA	Haskins loam, 0 to 2 percent slopes ( <i>where drained</i> )
HaB	Haskins loam, 2 to 6 percent slopes ( <i>where drained</i> )
*Ho	Holly silt loam, frequently flooded ( <i>See Category 3, next section</i> )
JtA	Jimtown loam, 0 to 2 percent slopes ( <i>where drained</i> )
JtB	Jimtown loam, 2 to 6 percent slopes ( <i>where drained</i> )
*Lo	Lorain silty clay loam ( <i>where drained</i> )
*Lp	Lorain silty clay loam, loamy substratum ( <i>where drained</i> )
LyB	Loudonville silt loam, 2 to 6 percent slopes.
MgA	Mahoning silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
MgB	Mahoning silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
MhA	Mahoning silt loam, shale substratum, 0-2 percent ( <i>where drained</i> )
MhB	Mahoning silt loam, shale substratum, 2-6 percent ( <i>where drained</i> )
MtA	Mitiwanga silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
MtB	Mitiwanga silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
Or	Orville silt loam, frequently flooded ( <i>See Category 3, next section</i> )
OsB	Oshtemo sandy loam, 2 to 6 percent slopes.
RaA	Ravenna silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
RaB	Ravenna silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
RdB	Rawson silt loam, 2 to 6 percent slopes.
RsB	Rittman silt loam, 2 to 6 percent slopes.
*Sb	Sebring silt loam ( <i>where drained</i> )
*Sc	Sebring silt loam, till substratum ( <i>where drained</i> )
Tg	Tioga loam, occasionally flooded.
Th	Tioga loam, frequently flooded ( <i>See Category 4, next section</i> )
VeA	Venango silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
VeB	Venango silt loam, 2 to 6 percent slopes ( <i>where drained</i> )
WbA	Wadsworth silt loam, 0 to 2 percent slopes ( <i>where drained</i> )
WbB	Wadsworth silt loam, 2 to 6 percent slopes ( <i>where drained</i> )

Source: Soil Survey of Trumbull County, Ohio, March, 1992.

## Categories for Prime Farmland Soils

Certain soils are only considered prime farmlands under certain conditions. For mapping purposes, we have broken prime farmland into four categories according to these conditions. These categories are as follows:

### Category 1: Prime farmland soils.

These prime farmland soils do not need drained, do not need protected from flooding, and are not frequently flooded during the growing season. The following soils make up 20 percent out of the 75 percent of prime farmland soils in the county.

<u>Map Symbol</u>	<u>Soil Name</u>
CaB	Cambridge silt loam
CfB	Canfield silt loam
CnA	Chili loam
CnB	Chili loam
EhB	Ellsworth silt loam
EhB2	Ellsworth silt loam, eroded
GfB	Glenford silt loam
LyB	Loudonville silt loam
OsB	Oshtemo sandy loam
RdB	Rawson silt loam
RsB	Rittman silt loam
Tg	Tioga loam, occasionally flooded, highest position on floodplain

### Category 2: Prime farmland soils where drained.

This category makes up the largest percentage of prime farmland acreage in the county. The category includes six out of the ten *\*Hydric Soils* listed for Trumbull County and, therefore, may contain wetlands. When an attempt was made to overlay the wetlands over the prime farmland soils, the prime farmlands where disseminated. (See [Prime Farmlands overlaid with the Wetlands Inventory Map.](#))

<u>Map Symbol</u>	<u>Soil Name</u>
*Ct	Condit silt loam
*Da	Damascus loam
DrA	Darien silt loam
DrB	Darien silt loam
FcA	Fitchville silt loam
FcB	Fitchville silt loam
HaA	Haskins loam
HaB	Haskins loam
JtA	Jimtown loam
JtB	Jimtown loam
*Lo	Lorain silty clay loam

*Lp	Lorain silty clay loam, loamy substratum
MgA	Mahoning silt loam
MgB	Mahoning silt loam
MhA	Mahoning silt loam, shale substratum
MhB	Mahoning silt loam, shale substratum
MtA	Mitiwanga silt loam
MtB	Mitiwanga silt loam
RaA	Ravenna silt loam
RaB	Ravenna silt loam
*Sb	Sebring silt loam
*Sc	Sebring silt loam, till substratum
VeA	Venango silt loam
VeB	Venango silt loam
WbA	Wadsworth silt loam
WbB	Wadsworth silt loam

**Category 3: Prime farmland soils where drained  
and either protected from flooding  
or not frequently flooded during the growing season.**

These soils are found in floodplain areas.

<u>Map Symbol</u>	<u>Soil Name</u>
*Ho	Holly silt loam, frequently flooded, lowest/wettest floodplain area
Or	Orville silt loam, frequently flooded

**Category 4: Prime farmland soils where protected from flooding  
or not frequently flooded.**

This well-drained soil is found on floodplains.

<u>Map Symbol</u>	<u>Soil Name</u>
Th	Tioga loam, frequently flooded

For further, in-depth information on specific soil types on a specific parcel of land refer to the Trumbull County Soil Survey or contact the USDA Department of Natural Resources Soil & Water Division in Cortland at (330) 637-2056.

## **Soil Productivity and Potential of USDA Classified Prime Farmland Soils**

The average yields per acre that can be expected of the principal crops under a high level of management are shown in the following table. This table can be used in conjunction with the "Prime Farmlands/Soil Series Map" to provide a visualization of where these soils/yields occur in Trumbull County. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seedling rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the following table are grown in the Trumbull County area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Soil Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

## **Main Agricultural Uses and Management Practices of Prime Farmland Soils**

The following section can be used with the “Prime farmland soils/Soil Series Map” to help locate where these soils are located in Trumbull County.

<b>Category 1: Prime farmland soils.</b>
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### **CaB-Cambridge silt loam**

This soil is mainly used for row crops, pasture, or woodland. It is well suited to corn, hay, and pasture. Row crops can be grown frequently if intensive management is used to control erosion. Properly managing crop residue and growing cover crops increase the content of organic matter, improve tilth, help control erosion, and increase the rate of water infiltration. The seasonal wetness sometimes delays planting. The soil is subject to compaction if tillage and harvesting activities are performed during excessively wet periods. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. A drainage system may be needed in the seep areas and in the wetter included soils.

### **CfB-Canfield silt loam**

This soil is mainly used for row crops, pasture, or woodland. It is well suited to corn, hay, and pasture. Row crops can be grown frequently if intensive management is used to control erosion. Properly managing crop residue and growing cover crops increase the content of organic matter, improve tilth, help control erosion, and increase the rate of water infiltration. The seasonal wetness sometimes delays planting. The soil is subject to compaction if tillage and harvesting activities are performed during excessively wet periods. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. A drainage system may be needed in the seep areas and in the wetter included soils.

### **CnA-Chili loam**

Most areas are used as cropland. This soil is well suited to corn, wheat oats, hay, and pasture. It is especially well suited to crops planted early in spring and to grazing early in spring. Pasture grasses grow slowly in summer because the soils tend to be droughty. The soil is well suited to no-till farming or other kinds of minimum tillage. Returning crop residue to the soil and growing cover crops conserve moisture, improve tilth, and maintain the content of organic matter. Because nutrients are leached at a moderately rapid rate, the soil generally is suited to smaller, more frequent or more timely applications of fertilizer than to one large application.

### **CnB-Chili loam**

Most areas are used as cropland. This soil is well suited to oats, wheat, and potatoes and to deep-rooted hay crops, such as alfalfa. Erosion is a moderate hazard if cultivated crops

are grown. The soil is well suited to no-till farming or other kinds of minimum tillage, which generally are adequate in controlling erosion. Growing cover crops and establishing grassed waterways help to prevent excessive soil loss. Returning crop residue to the soil or regularly adding other organic matter improves fertility, minimizes crusting, and increases the rate of water infiltration. Plants often show evidence of moisture stress during the drier summer months. Because nutrients are leached at a moderately rapid rate, the soil generally is suited to smaller, more frequent or more timely applications of fertilizer than to one large application. It is well suited to grazing in early spring.

### **EhB-Ellsworth silt loam**

This soil is used for crops, pasture, or woodland. It is moderately well suited to row crops, hay, and pasture. Erosion is the main management concern. Farming on the contour, applying a system of minimum tillage, growing cover crops, incorporating crop residue into the soil, and tilling and harvesting at the optimum moisture content reduce the hazard of erosion, improve tilth, and maintain the content of organic matter. Scattered subsurface drains are needed in the wetter included soils and in wet-weather seeps. Hard clods form if the soil is cultivated when it is too wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Grazing when the soil is soft and sticky causes compaction and reduces the growth rate of plants.

### **EhB2-Ellsworth silt loam**

Most areas have been cleared and are cultivated. Some areas are returning to natural vegetation. This soil is moderately well suited to row crops, hay, and pasture. Erosion is the main management concern. Applying a system of minimum tillage, growing cover crops, incorporating crop residue into the soil, and tilling and harvesting at the optimum moisture content reduce the hazard of erosion, improve tilth, and maintain the content of organic matter. The soil is commonly wet in spring and dry in midsummer. Scattered subsurface drains are needed in the wetter included soils and in wet-weather seeps. Hard clods form if the soil is cultivated when it is too wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Grazing when the soil is soft and sticky causes compaction and reduces the growth rate of plants.

### **GfB-Glenford silt loam**

Most areas are used as cropland. This soil is well suited to row crops, hay and pasture. It can easily be farmed but is susceptible to surface crusting and erosion. Minimizing tillage, returning crop residue to the soil, and growing cover crops help to control erosion, maintain the content of organic matter, and improve tilth. Shallow cultivation of intertilled crops breaks up a surface crust. Random subsurface drains are needed in the wetter included soils.

### **LyB-Loudonville silt loam**

Most areas are used as permanent pasture or woodland. A few areas are used for cultivated crops. This area is well suited to corn, small grain, hay, and pasture and to grazing in early spring. The hazard of erosion is moderate if cultivated crops are grown. The soil is not naturally productive, but it responds to good management. It is suited to no-till farming and other kinds of minimum tillage. Returning crop residue to the soil and growing cover crops conserve moisture, help to control erosion, and improve tilth. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Pasture rotation and restricted grazing during wet periods help to keep the pasture in good condition.

### **OsB-Oshtemo sandy loam**

Most areas are used for row crops. This soil is well suited to small grain and hay and to grazing in early spring. If irrigated, it is well suited to row crops and specialty crops. It is suited to no-till farming and other kinds of minimum tillage. Pasture grasses grow slowly in summer because the soil is droughty. Deep-rooted plants, such as alfalfa, grow better than other plants during the dry season. Returning crop residue to the soil and growing cover crops conserve moisture, help to control erosion, improve tilt, and maintain the content of organic matter. Because nutrients are leached at a moderately rapid rate, crops generally respond to smaller, more frequent or more timely applications of fertilizer than to one large application.

### **RdB-Rawson silt loam**

Most areas are used as cropland. A few areas support native hardwood. This soil is well suited to corn, soybeans, small grain, hay, and pasture. It is especially well suited to crops that mature early in the growing season. Erosion is the main hazard. Returning crop residue to the soil, minimizing tillage, and including meadow crops in the cropping sequence commonly help to control erosion, improve tilth, and increase the rate of water infiltration. Randomly-spaced-subsurface drains are used in the wetter included soils and the seep spots. The soil is moderately well suited to grazing in early spring. Surface compaction, reduced growth rates, and poor tilth result from overgrazing or grazing when the soil is soft and sticky.

### **RsB-Rittman silt loam**

Most areas are used as cropland or pasture. A few areas are wooded. This soil is well suited to corn, soybeans, hay and pasture. Row crops can be grown frequently if management is intensive. Grasses and legumes that withstand wetness are suitable for hay or pasture. The soil tends to erode easily. Properly managing crops residue and growing cover crops increase the content of organic matter, improve tilth, help to control erosion, and increase the rate of water infiltration. The soil is subject to compaction if tillage and harvesting activities are performed during excessively wet periods. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Tillage and harvesting activities should be

performed at the optimum moisture content. Slight seasonal wetness delays planting in some areas. Random subsurface drains may be needed in the wetter included soils, but water moves slowly into the drains.

### **Tg-Tioga loam**

This soil is used mainly as woodland or pasture. It is well suited to grasses and legumes for hay or pasture and to woodland. It is well suited to corn and to some specialty crops, such as sweet corn, melons, potatoes, and other vegetables. The major hazard in the areas used for cultivated crops is occasional flooding. Small grain crops, such as winter wheat and oats, may be severely damaged by flooding in winter and early spring. Growing cover crops helps to maintain the content of organic matter and protects the surface during periods when tree seedlings, such as black walnut and eastern white pine, are becoming established. No major hazards or limitations affect planting or harvesting in wooded areas.

<b>Category 2: Prime farmland soils where drained.</b>
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### **\*Ct-Condit silt loam**

Most areas are wooded or pastured. A few have been cleared and are used as cropland. The excessive wetness and slow permeability are the major limitations in the areas used as cropland. They commonly delay tillage. Drained areas are moderately well suited to crops, hay, and pasture, but undrained areas are poorly suited. Maintaining tilth and desirable forage stands is difficult. The slow internal water movement reduces the effectiveness of subsurface drains. Outlets for these drains are not available in many areas. Surface drains can remove surface water. The soil is subject to compaction and hard clodding if tillage or harvesting activities are performed during wet periods. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Properly managing crop residue and growing cover crops increase the rate of water infiltration and the content of organic matter and improve tilth.

### **\*Da-Damascus loam**

Most areas are wooded or pastured. A few areas are used as cropland. The major limitation in the areas of this soil used for farming is the seasonal wetness. Drained areas are well suited to corn, hay, and pasture. Undrained areas are poorly suited to crops and to grazing early in spring. Surface drains can remove surface water. Subsurface drains can remove excess water from the root zone outlets available. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted during wet periods help to keep the pasture in good condition.

### **DrA-Darien silt loam**

Most areas are used for row crops, hay, or pasture. Some areas are reverting to natural vegetation. The major limitations in the areas of this soil used for row crops are the seasonal wetness and the moderately slow permeability. Drained areas are well suited to corn and to grasses and legumes for hay or pasture, but undrained areas are poorly suited. Planting commonly is delayed in undrained areas. Both surface and subsurface drains can improve drainage. Because of the moderately slow permeability in the subsoil, subsurface drains should be properly spaced for uniform drainage. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Because of the hazard of compaction, grazing should be controlled. Returning crop residue to the soil and growing cover crops increase the rate of water infiltration and the content of organic matter and improve tilth.

### **DrB-Darien silt loam**

Most areas are used for row crops, hay, or pasture. Some areas are wooded or reverting back to natural vegetation. Drained areas of this soil are well suited to row crops, hay and pasture. The wetness and the moderately slow permeability limit the suitability for crops that are plant in early spring. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Both surface and subsurface drains can improve drainage. Because of the moderately slow permeability, subsurface drains should be properly spaced for uniform drainage. Hard clods form if the soil is cultivated when too wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Maintaining good tilth and controlling erosion are difficult in intensively cultivated areas. Tilling and harvesting at the proper moisture content, growing cover crops, and incorporating crop residue into the soil improve tilth, increase the content of organic matter and, and help to control erosion.

### **FcA-Fitchville silt loam**

Most areas are used as cropland. Drained areas of this soil are well suited to row crops, hay, and pasture, but undrained areas are poorly suited. Row crops can be grown year after year in drained areas. Plating is delayed in undrained areas. Surface drains can remove excess surface water, and subsurface drains can remove excess surface water, and subsurface drains can lower the water table. The soil is subject to compaction and hard closing if tillage or harvesting activities are performed during wet periods. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Properly managing crop residue and growing cover crops increase the content of organic matter, improve tilth, and increase the rate of water infiltration. Because of compaction, grazing should be limited to periods when the surface layer is not soft and sticky.

This soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of some wetness. No major hazards or limitations affect planting or harvesting.

#### **FcB-Fitchville silt loam**

Most areas are used as cropland. Drained areas of this soil are well suited to row crops, hay and pasture. Undrained areas are moderately well suited to row crops. Erosion is a hazard if cultivated crops are grown. Minimum tillage, crop residue management, and cover crops help to control erosion, maintain the content of organic matter, and improve tilth. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Planting is delayed in undrained areas. The grasses and legumes grown for hay or pasture should be those that are tolerant of wetness. Because of compaction, grazing should be limited to periods when the surface layer is not soft and sticky.

This soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of some wetness. No major hazards or limitations affect planting or harvesting.

#### **HaA-Haskins loam**

Most areas are used for crops, pasture or woodland. The seasonal wetness and the slow or very slow permeability are the major limitations in the areas used for farming. The wetness delays planting and limits the choice of crops. Drained areas are well suited to corn, hay and pasture, but undrained areas are poorly suited. Maintaining desirable forage stands and minimizing soil compaction are difficult in undrained areas, especially in those used a permanent pasture. Surface drains are needed. Subsurface drains can lower the perched water table. These drains are more effective if they are installed on or above the slowly permeable or very slowly permeable glacial till or lacustrine material. Tilling at the proper moisture content, properly managing crop residue, and growing cover crops improve tilth and increase the content of organic matter.

This soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of some wetness. No major hazards or limitations affect planting or harvesting.

#### **HaB-Haskins loam**

Most areas are used for crops, pasture or woodland. Drained areas of this soil are well suited to row crops, such as corn, and to small grain and hay. Undrained areas are moderately well suited to cropland. Planting is often delayed in undrained areas. Erosion is a hazard on long slopes that are used for row crops. Minimizing tillage, properly managing crop residue, and growing cover crops helps to control erosion, maintain the content of organic matter, and improve tilth. Subsurface drains can lower the perched water table. These drains are more effective if they are installed on or above the slowly

permeable or very slowly permeable glacial till or lacustrine material. Controlled grazing, especially when the soil is soft and sticky, helps to prevent excessive compaction.

The soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of some wetness. No major hazards or limitations affect planting or harvesting.

#### **JtA-Jimtown loam**

Many areas are used for farming. A considerable acreage is wooded. Drained areas of this soil are well suited to corn, hay, and pasture, but undrained areas are poorly suited. The major limitation is the seasonal wetness, which delays plating and limits the choice of crops. Maintaining tilth and desirable forage stands is difficult in undrained areas. Subsurface drains can lower the water table. Minimizing tillage, growing cover crops, and incorporating crop residue into the soil improves tilth and increases the content of organic matter. Grazing early in spring when the soil is soft can damage pasture plants. These plants grow well during the dry part of summer. This soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of some wetness.

#### **JtB-Jimtown loam**

Most areas are used as cropland. A considerable acreage is used as woodland or permanent pasture or is reverting to woodland. Drained areas of this soil are well suited to pasture and row crops, and undrained areas are moderately well suited. Erosion is a hazard on long slopes that are used for row crops. Minimizing tillage, properly managing crop residue, and growing cover crops help to control erosion, maintain the content of organic matter, and improve tilth. A subsurface drainage system can reduce the wetness if a suitable outlet is available. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to keep the pasture in good condition. This soil is moderately well suited to woodland. The species selected for planting should be those that are tolerant of wetness.

#### **\*Lo-Lorain silty clay loam**

Most areas are wooded or pastured. A few have been cleared and are used cropland. The excessive wetness and the slow permeability are the major limitations that affect farming. They commonly delay tillage. Drained areas are well suited to row crops, hay, and pasture, but undrained areas are poorly suited. Maintaining tilth and desirable forage stands is difficult in undrained areas. The slow internal water movement reduces the effectiveness of subsurface drains. Outlets for these drains are not available in many areas. Surface drains can remove surface water. The soil is subject to compaction and hard clodding if tillage or harvesting activities are performed during wet periods. Properly managing crop residue and growing cover crops increases the rate of water infiltration and the content of organic matter and improve tilth.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. Planting techniques that spread the roots of the seedlings and improve the soil-root contact reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

**\*Lp-Lorain silty clay loam**

Most areas are wooded or pastured. A few have been cleared and are used as cropland. The excessive wetness and the slow permeability are the major limitations that affect farming. They commonly delay tillage. Drained areas are well suited to crops, hay and pasture, but undrained areas are poorly suited. Maintaining tilth and desirable forage stands are difficult in undrained areas. The slow internal water movement reduces the effectiveness of subsurface drains. Outlets for these drains are not available in many areas. Surface drains can remove surface water. The soil is subject to compaction and hard clodding if tillage or harvesting activities are performed during wet periods. Properly managing crop residue and growing cover crops increase the rate of water infiltration and the content of organic matter and improve tilth.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. Planting techniques that spread the roots of the seedlings and improve the soil root contact reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

**MgA-Mahoning silt loam**

Most areas are used for row crops, hay or pasture. Some areas are reverting to natural vegetation. The major limitations in the areas of this soil used for row crops are the wetness and the slow or very slow permeability. Drained areas are well suited to corn and to grasses and legumes for hay and pasture. Undrained areas, where planting commonly is delayed, are poorly suited to row crops, hay and pasture. Both surface and subsurface drains can improve drainage. Closely spacing the subsurface drains results in uniform drainage. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Because of compaction, grazing should be controlled. Returning crop residue to the soil and growing cover crops can increase the rate of water infiltration and the content of organic matter and improve tilth.

This soil is moderately well suited to woodland. Planting techniques that spread the roots of the seedlings and improve the soil-root contact reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

### **MgB-Mahoning silt loam**

Most areas are used for cultivated crops, hay or pasture. Some areas are wooded or are reverting to natural vegetation.

Drained areas of this soil are well suited to cultivated crops, hay and pasture, and undrained areas are moderately well suited. The wetness and the slow or very slow permeability limit the suitability of this soil for the crops that are planted early in spring. Maintaining good tilth and controlling erosion are difficult in intensively cultivated areas. Tilling and harvesting at the proper moisture content, growing cover crops, and incorporating crop residue into the soil improve tilth, increase the content of organic matter, and help to control erosion. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Both surface and subsurface drains can improve drainage. Closely spacing the subsurface drains results in uniform drainage. Hard clods form if the soil is cultivated when it is too wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust.

This soil is moderately well suited to trees. Planting techniques that spread the roots of the seedlings and improve the soil-root contact reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

### **MhA-Mahoning silt loam**

This soil is used mainly for row crops, hay, pasture or woodland. Drained areas are well suited to corn, hay and pasture, but undrained areas are poorly suited. The seasonal wetness and the slow or very slow permeability limit the use of this soil for farming. Planting is delayed and the choice of crops is limited in undrained areas. These areas can be used for hay or pasture, but maintaining desirable forage stands and tilth is difficult. Both surface and subsurface drains can improve drainage in most areas. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Controlled grazing helps to prevent excessive compaction. Returning crop residue to the soil, growing cover crops, and tilling and harvesting at the proper moisture content increases the rate of water infiltration and maintains the content of organic matter and tilth.

This soil is moderately well suited to woodland. Planting techniques that spread the roots of the seedlings and improve the soil-root contact reduce the seeding mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

### **MhB-Mahoning silt loam**

This soil is used mainly for row crops, hay, pasture, or woodland. Some areas are used for specialty crops. The hazard of erosion, the seasonal wetness, and the slow or very slow permeability limit farming. Returning crop residue to the soil, growing cover crops,

and tilling and harvesting at the proper moisture content reduce the hazard of erosion, increase the rate of water infiltration, and maintain the content of organic matter and tilth. Planting is delayed and the choice of crops is limited in undrained areas. These areas can be used for hay or pasture, but maintaining desirable forage stands and tilth is difficult. Drained areas are well suited and undrained areas moderately well suited to corn, hay and pasture. Drained areas are moderately well suited to specialty crops. Both surface and subsurface drains can improve drainage in most areas. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Controlled grazing helps to prevent excessive compaction.

This soil is moderately well suited to woodland. Planting techniques that spread the roots of the seedlings and improve the soil-root contact reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

#### **MtA-Mitiwanga silt loam**

Most areas are used as pasture or woodland. A few areas are used for cultivated crops or hay. The seasonal wetness and the moderate depth to bedrock limit the use of this soil for farming. Unless drained, the soil is poorly suited to row crops. The wetness delays planting and limits the choice of crops. Drained areas are well suited to row crops, hay and pasture. Undrained areas can be used for hay or pasture, but maintaining tilth and desirable forage stands is difficult. Surface and subsurface drains can be used. The hard sandstone bedrock commonly hinders the installation of drains, however, and outlets are not available in many areas. The soil is subject to compaction and hard clodding if tillage or harvesting activities are performed during excessively wet periods. The surface layer crusts after heavy rainfall especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Tillage and harvesting activities should be performed at the optimum moisture content with equipment that minimizes soil compaction. Properly managing crop residue and growing cover crops increase the content of organic matter and improve tilth. This soil is moderately well suited to woodland. Frequent, light thinning and harvesting can increase the vigor of the stand and reduce the windthrow hazard.

#### **MtB – Mitiwanga silt loam**

The soil is used mainly for pasture or woodland. Some areas have been cleared and are used for corn or small grain or for mixtures of grasses and legumes for hay. Drained areas of this soil are well suited to hay, pasture, and row crops, and undrained areas are moderately well suited. Erosion and the seasonal wetness are the most serious problems affecting cropland and pasture. Erosion can be kept to a minimum by increasing the rate of water infiltration and reducing the runoff rate. Growing winter cover crops and including grasses and legumes in the crop rotation help to maintain maximum ground cover throughout the year. Minimum tillage and incorporation of crop residue into the

plow layer improve tilth and increase the rate of water infiltration. The wetness can be reduced mainly by a subsurface drainage system but also by ditches and grassed waterways. Proper stocking rates, pasture rotation, timely deferment of grazing, and restricted use during wet periods help to keep the pasture in good condition.

This soil is moderately well suited to woodland. Frequent light thinning and harvesting can increase the vigor of the stand and reduce the windthrow hazard.

#### **RaA-Ravenna silt loam**

Most areas are used for row crops or hay. The wetness limits the suitability of this soil for planting crops or grazing early in spring. Drained areas are well suited to row crops, hay, and pasture, but undrained areas are poorly suited. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Surface and subsurface drains can remove excess water. Because of the slowly permeable fragipan, subsurface drains should be closely spaced for uniform drainage. The surface layer crusts after heavy rain falls, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Returning crop residue to the soil and growing cover crops increases the content of organic matter and the rate of water infiltration and improve tilth. The perennial plants that are tolerant of wetness should be selected for planing. Grazing should be controlled because of the hazard of excessive compaction.

This soil is moderately well suited to woodland. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

#### **RaB-Ravenna silt loam**

Most areas are used for row crops or hay. Drained areas are well suited to row crops, hay and pasture, and undrained areas are moderately well suited. Erosion is a moderate hazard if the soil is cultivated. The wetness delays planting and limits the choice of crops. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Maintaining good tilth is important because it minimizes surface crusting and erosion. Growing cover crops and properly managing crop residue increases the content of organic matter, improve tilth, reduce the hazard of erosion, and increases the rate of water infiltration. Because of the slowly permeable fragipan, subsurface drains should be closely spaced for uniform drainage. Grazing should be controlled because of the hazard of excessive compaction.

This soil is moderately well suited to woodland. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Because of the seasonal wetness, this soil is poorly suited to building site development. It is better suited to dwellings without basements than to dwellings with basements. Ditches and subsurface drains can improve drainage. Properly landscaping building sites helps to keep surface water away from foundations. Drains at the base of footings and

exterior basement wall coatings help to keep basements dry. Local roads can be improved by a drainage system and suitable base material, which minimize damage caused by the wetness and frost action.

#### **\*Sb-Sebring silt loam**

Drained areas are used for general farm crops. The seasonal wetness severely limits the use of this soil for row crops. Drained areas are well suited to row crops, such as corn and soybeans, and to water tolerant grasses and legumes for hay or pasture, but undrained areas are poorly suited. Surface drains can remove excess surface water. Subsurface drains can lower the seasonal high water table, but establishing this type of drainage system is difficult because of the low position on the landscape and the lack of suitable outlets. Tilling or grazing when the soil is wet causes compaction. Properly managing crop residue, growing cover crops, and tilling and harvesting at the proper moisture content are important management practices.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. The species selected for planting should be those that are tolerant of wetness. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduces the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

#### **\*Sc-Sebring silt loam**

Most undrained areas support trees and brush. Drained areas are used for general crops. The seasonal wetness severely limits the use of this soil for row crops. Drained areas are well suited to row crops, such as corn, to small grain, and to grasses and legumes for hay or pasture, but undrained areas are poorly suited. Surface drains can remove excess surface water. Subsurface drains can lower the seasonal high water table, but establishing this type of drainage system is difficult because of the low position on the landscape and the lack of suitable outlets. Tilling or grazing when the soil is wet causes compaction. Properly managing crop residue, growing cover crops, and tilling and harvesting at the proper moisture content are important management practices.

This soil is moderately well suited to trees that are tolerant of wetness. The trees can be logged when the soil is frozen or during the drier parts of the year. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

#### **VeA-Venango silt loam**

Most areas are used for row crops. Some areas are wooded or pastured. Drained areas of this soil are well suited to row crops, hay and pasture, but undrained areas are poorly

suiting. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Surface drains can remove excess surface water. Subsurface drains can remove excess water from the root zone. These drains should be closely spaced for uniform drainage. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heaving rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Properly managing crop residue and growing cover crops increase the content of organic matter, improve tilth, and increase the rate of water infiltration.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

### **VeB-Venango silt loam**

Most areas are used for row crops, such as corn, for small grain, or for grasses and legumes for hay or pasture. A substantial acreage is used as woodland or is reverting to woodland. The wetness delays planting and limits the choice of crops. It also delays grazing in the spring. Drained areas are well suited to row crops, hay and pasture, and undrained areas are moderately well suited. Minimizing soil compaction and maintaining desirable forage stands are difficult, especially in undrained areas. Subsurface drains can remove excess water from the subsoil. They should be closely spaced for uniform drainage. Maintaining good tilth is important because it minimizes surface crusting and erosion. Growing cover crops and properly managing crop residue increases the content of organic matter, improve tilth, reduce the hazard of erosion, and increases the rate of water infiltration.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

### **WbA-Wadsworth silt loam**

Most of the acreage is used for general farm crops, pasture or trees. The wetness limits the suitability of this soil for planting crops or grazing early in the spring. Drained areas are well suited to corn, soybeans, wheat, hay and pasture, but undrained areas are poorly suited. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Surface and subsurface drains can remove excess water. Closely spacing the subsurface drains results in uniform drainage. Hard clods form if the soil is cultivated when wet. The surface layer crusts after heavy rainfall, especially in tilled areas. Shallow cultivation of intertilled crops breaks up the crust. Properly managing crop residue and growing cover crops increase the content of organic matter and the rate of water infiltration and improve tilth.

This soil is moderately well suited to woodland. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Planting seedlings that have been transplanted once can reduce the seedling mortality rate.

### **WbB-Wadsworth silt loam**

Most of the acreage is used for general farm crops, pasture or trees. Drained areas are well suited to corn, soybeans, wheat, hay and pasture and undrained areas are moderately well suited. Erosion is a moderate hazard if the soil is cultivated. The wetness delays planting and limits the choice of crops. Minimizing soil compaction and maintaining desirable forage stands are difficult in undrained areas. Maintaining good tilth is important because it minimizes surface crusting and erosion.

Growing cover crops and properly managing crop residue increases the content of organic matter, improve tilth, reduce the hazard of erosion, and increase the rate of water infiltration. Subsurface drains can remove excess water from the subsoil. They should be closely spaced for uniform drainage.

This soil is moderately well suited to woodland. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard.

<p style="text-align: center;"><b>Category 3: Prime farmland soils where drained and either protected from flooding or not frequently flooded during the growing season.</b></p>
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### **\*Ho-Holly silt loam**

Most areas support wetland vegetation or are used as woodland. If drained and protected from flooding, this soil is moderately well suited to crops and pasture. Undrained and unprotected areas are poorly suited to row crops, hay and pasture. Surface drains commonly remove surface water. Subsurface drains are used in areas where outlets are available. The perennial plants selected for planting should be those that are tolerant of wetness. The soil is poorly suited to grazing early in the spring. Overgrazing or grazing when the soil is soft and sticky results in compaction and poor tilth.

This soil is moderately well suited to woodland. The trees can be logged when the soil is frozen or during the drier parts of the year. Planting seedlings that have been transplanted once can reduce the seedling mortality rate. Harvesting procedures that do not isolate the remaining trees or leave them widely spaced reduce the windthrow hazard. Removing vines and the less desirable trees and shrubs can control plant competition.

### **Or-Orville silt loam**

Most of the acreage is used as pasture or woodland. The flooding and the seasonal wetness limit the use of this soil for farming. The wetness delays planting and limits the

choice of crops. Drained areas are well suited to row crops, such as corn. Undrained areas are poorly suited to row crops, hay and pasture. Maintaining tilth and desirable forage stands is difficult in undrained areas. Surface drains can remove excess surface water. A subsurface drainage system also is needed, but establishing suitable outlets is difficult in many areas. Growing cover crops helps to maintain the content of organic matter and protects the surface during period of flooding.

This soil is moderately well suited to woodland. The species selected for planting should be those that can withstand floodwater and are tolerant of some wetness.

<p style="text-align: center;"><b>Category 4: Prime farmland soils where protected from flooding or not frequently flooded.</b></p>
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**Th-Tioga loam**

This soil is used mainly as woodland or pasture. It is well suited to grasses and legumes for hay or pasture and to woodland. It is moderately well suited to corn and soybeans and to some specialty crops, such as sweet corn, melons, potatoes, and other vegetables. The major hazard in the areas used for row crops is frequent flooding. Small grain crops, such as winter wheat and oats, may be severely damaged by flooding in winter and early spring. Growing cover crops helps to maintain the content of organic matter and protects the surface during periods when tree seedlings, such as black walnut and eastern white pine, are becoming established. No major hazards or limitations affect planting or harvesting in wooded areas.

Source: Soil Survey of Trumbull County, Ohio, March, 1992.

## YIELDS PER ACRE OF CROPS AND PASTURE

Yields are those that can be expected under a high level of management. Only prime farmland soils are listed. This table can be used in conjunction with the “Prime Farmlands/Soil Series Map” to provide a visualization of where these soils/yields occur in Trumbull County.

Map symbol and soil series	Corn (Bu)	Soybeans (Bu)	Winter Wheat (Bu)	Oats (Bu)	Alfalfa Hay Tons	Orchardgrass AUM*
<b>Category 1: Prime Farmland soils.</b>						
CaB: Cambridge	96	34	40	80	3.6	6.5
CfB: Canfield	96	34	40	80	3.6	6.5
CnA: Chili	110	35	45	80	4.6	6.5
CnB: Chili	100	32	40	78	4.5	6.5
EhB: Ellsworth	95	34	38	75	4.0	6.5
EhB2: Ellsworth	90	32	35	70	3.8	6.5
GfB: Glenford	110	38	40	75	4.5	6.5
LyB: Loudonville	95	38	42	75	4.2	6.5
OsB: Oshtemo	100	32	42	80	3.8	6.5
RdB: Rawson	110	40	40	80	4.0	6.5
RsB: Rittman	100	35	42	75	3.8	6.5
Tg: Tioga	110	36	45	80	4.0	6.5
<b>Category 2: Prime Farmland soils where drained.</b>						
*Ct: Condit	88	30	34	68	3.6	5.8
*Da: Damascus	80	28	35	65	3.0	n/a
DrA: Darien	90	32	45	60	3.5	6.5
DrB: Darien	85	32	42	57	3.5	6.5
FcA: Fitchville	110	34	38	72	4.0	6.5
FcB: Fitchville	100	34	35	68	4.0	6.5
HaA: Haskins	110	38	46	75	4.2	6.5
HaB: Haskins	108	35	44	70	4.0	6.5
JtA: Jimtown	92	34	40	70	4.0	6.5
JtB: Jimtown	85	32	38	67	4.0	6.5
*Lo: Lorain	110	38	42	60	4.5	6.0
*Lp: Lorain	110	38	42	60	4.6	6.0
MgA: Mahoning	95	32	32	70	3.8	6.5
MgB: Mahoning	90	30	30	68	3.8	6.5
MhA: Mahoning	95	32	32	70	3.8	6.5
MhB: Mahoning	90	30	30	68	3.6	6.5
MtA: Mitiwanga	90	30	40	70	4.0	6.5
MtB: Mitiwanga	85	26	35	65	3.5	6.5
RaA: Ravenna	100	34	35	70	3.6	6.5
RaB: Ravenna	95	32	33	70	3.5	6.5
*Sb: Sebring	94	35	32	65	3.0	6.5
*Sc: Sebring	94	35	32	65	3.0	6.5
VeA: Venango	100	34	35	70	3.6	6.5
VeB: Venango	95	32	33	70	3.5	6.5
WbA: Wadsworth	90	32	35	65	3.5	6.5

WbB:	Wadsworth	88	26	35	65	3.5	6.5
<b>Category 3: Prime Farmland soils where drained and either protected from flooding or not frequently flooded during the growing season.</b>							
*Ho:	Holly	90	28	38	62	2.8	5.5
Or:	Orville	95	32	45	75	4.5	6.5
<b>Category 4: Prime farmland soils where protected from flooding or not frequently flooded.</b>							
Th:	Tioga	110	28	40	75	3.5	6.5

\* Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, five sheep, or five goats) for 30 days.

Source: Soil Survey of Trumbull County, Ohio, March, 1992.

For further in-depth information to determine soil productivity and potential on a specific parcel, refer to the Trumbull County Soil Survey or contact the USDA Department of Natural Resources Soil & Water Division in Cortland at (330) 637-2056.

Recommend that when possible farmers implement Best Management Practices, as they are essential for protection of prime farmland soils.

Recommend that the location of land where development is unlikely to occur be addressed in the Countywide Comprehensive Land Use Plan.

Recommend that land enrolled in other government plans such as Wetland Reserve, Conservation Easement, and Registered Forest Lands be delineated in the Countywide Comprehensive Land Use Plan.

Recommend that floodplains be delineated in the Countywide Comprehensive Land Use Plan.

Recommend that riparian corridor protection along waterways be addressed in the Countywide Comprehensive Land Use Plan.

## **16 TOOLS TO ENCOURAGE FARMLAND PRESERVATION**

### **1) Conservation Easements**

A conservation easement (or conservation restriction) is a legal agreement between a landowner and a land trust or governmental agency that permanently limits uses of the land in order to protect its conservation values. When a landowner donates a conservation easement to a land trust, he/she gives up some of the rights associated with the land. For example, the landowner might give up the right to build additional non-farm structures, while retaining the right to all other uses. Future owners will also be bound by the easement terms, and the land trust or government agency assigned the easement is responsible for enforcing the conditions of the terms. Conservation easements provide great flexibility to landowners and communities in the range of activities they protect with the easement applying to all or a portion of the land, which need not require public access.

Whether a land trust or a government agency is administering an area's conservation easements, the method of procurement varies. Traditionally the easement is donated, which allows for potential tax benefit to the donating landowner, but more recently, the purchase of conservation easements is becoming a common manner in which the land is protected. The compensation to the landowner is the revenue generated from the selling of the easement under the purchasing method. The benefit gained, as noted, for donation lies in tax advantages. If the donation benefits the public by permanently protecting important conservation resources and meets the federal tax code requirements, the donation can qualify as a tax-deductible charitable donation. The amount of the donation is the difference between the land's value with the easement and the value without the easement in place. The conservation easement also has significant implications on passing land on to the next generation. By removing the land's development potential, the easement lowers its market value, which results in a lower estate tax. To attain this advantage, the easement can be donated during life or by will.

#### **Advantages:**

- ⇒ Similar to Deed Restrictions, landowner gives up some of the rights associated with their land
- ⇒ Provide great flexibility in the range of activities easements can protect
- ⇒ Typically donated which eliminates the need for funding to acquire
- ⇒ Tax advantage in assessed value of land and can qualify as a charitable donation
- ⇒ Carry over to future landowners
- ⇒ Can be donated during life or by will

**Disadvantages:**

- ⇒ Easements must be maintained by land trust or government agency which requires some additional funding
- ⇒ Permanent nature of easements is prohibitive to individual landowners

## **Tax Programs**

### **2) Current Agricultural Use Valuation (CAUV)**

Tax programs are used to promote and protect agriculture by giving farmers a tax incentive by lowering the assessed value of farm property. This lowered assessed value is arrived at by basing a property's tax upon the farming value and not the market value of development. The Current Agricultural Use Valuation (CAUV) program is the most common method that uses this tax saving strategy. In exchange for the lower valuation of their land, the farmer or property owner must keep the land in agricultural use for three years. If the land is converted from farm use before this period lapses, penalties are assessed to recoup the difference in valuation. To strengthen the protection powers of the CAUV program, the Ohio State legislature is proposing to extend the period from three years to ten years in H.B. 645, a farmland preservation legislation currently being drafted.

### **3) Taxpayer Relief Act of 1997**

Another tax opportunity for farmers to keep their land intact appeared in 1997 federal tax legislation. Under a new provision in the Taxpayer Relief Act of 1997, landowners that commit their lands to conservation easements can obtain a 40 percent estate tax exemption. This exemption only applies to lands within 25 miles of a federally designated metropolitan statistical area, and sets a \$500,000 cap on tax benefits. This tax relief helps prevent farm families from having to sell their land to pay inheritance taxes, an occurrence often cited as a barrier to second and third generations of farmers.

**Advantage:**

- ⇒ Helps agriculture industry by providing some relief by matching land value with land use
- ⇒ No direct cost other than reduction in an areas tax revenue, but more reflective upon cost of services farming places upon a community
- ⇒ Structure of system penalizes those who do not meet or live up to the program requirements
- ⇒ Administered at county level through Auditor
- ⇒ Allows for a tax break when land passes to heirs

### **Disadvantages:**

- ⇒ Current CAUV recoupment period is not prohibitive enough, also minimum requirements set too low
- ⇒ Over participation can weaken tax base without desired benefit of program
- ⇒ 40 percent estate tax exemption may not be sufficient enough to prevent land from being sold to pay estate tax

## **4) Land Donation**

Land donation is less a specific strategy for a municipality toward farmland preservation than an option available to individual landowners that support the efforts of a particular conservation movement.

This strategy may be the best for landowners who:

- 1) Do not wish to pass the land on to heirs;
- 2) Own property they no longer use;
- 3) Own highly appreciated property;
- 4) Have substantial real estate holdings and wish to reduce estate tax burdens; or
- 5) Would like to be relieved of the responsibility of managing and caring for land.

There are a number of motivations behind landowners donating a conservation easement and the extent and timing of the easement varies.

An outright donation is not the only way to give land. By donating a remainder interest on land, a landowner can continue to live on the land and retain a reserved life estate. Under this arrangement, the landowner donates the land, but continues to live on and use the property. Title and control over the property is conveyed upon death. Donating land by will is another means towards attaining the same end. Upon death, the control is legally transferred.

Another avenue in land donation is one that establishes a life income. This option is available to landowners that would prefer to protect the land through donation, but need to receive income during their lifetime. A charitable gift annuity will accomplish this type of arrangement. In a charitable gift annuity, the landowner agrees to transfer certain property to a charity and the charity agrees to make regular annuity payments to one or two beneficiaries specified by the owner. In addition to the life income established, the gift of land typically qualifies for a charitable income deduction at the time of the donation. The deduction is based on the value of the land less the expected value of the annuity payments

Additionally, an option for donating property and receiving regular income is a charitable remainder unitrust. The difference between this arrangement and a charitable gift annuity is the source of revenue generating the income stream. Under this method, the landowner establishes the conservation easement on the land and places the land in a trust. The trust

then sells the land and invests the net proceeds from the sale. The income stream is generated from the sale and any remaining funds are turned over to the land trust. The gift also qualifies for a charitable income tax deduction based upon the same formula used for a charitable gift annuity. Charitable gift annuities and charitable remainder unitrust are most useful for highly appreciated land that would incur high capital gains tax.

There is still another option available to landowners who want to protect their land through donation, but have immediate concerns they must address. If a landowner needed to realize immediate income from selling their land, but still would like the property to go to a land trust for conservation protection, a bargain sale could realize this goal. In a bargain sale, the land is sold to a land trust or acting government agency for less than its fair market value. Not only does this provide the land to the trust at an acceptable price, but it also provides the landowner with several benefits. These benefits are that it provides cash, avoids some capital gains tax, and entitles the landowner to a charitable income tax deduction based on the difference between the land's fair market value and its sale price.

**Advantages:**

- ⇒ Voluntary action taken by individual land owner
- ⇒ Many options on how and what donation can accomplish
- ⇒ Can generate life income stream for donating landowner while protecting land
- ⇒ Can be donated during life or by will

**Disadvantages:**

- ⇒ Land trust or government agency needed for administration, very small expenditure of funds needed for this purpose
- ⇒ Can not be relied upon as designated strategy to protect farmland, can only supplement existing strategy

## **5) Agricultural Zoning**

Zoning exists as the traditional method for communities to control development in rural and undeveloped areas. Agricultural zoning is different from traditional zoning in that it is intended to protect a resource rather than to direct order to development. This type of zoning does have the traditional effect, but in a more indirect manner. Areas of farmland or open space selected to be protected by the community are designated as agricultural security areas. These protected blocks of land contain requirements of large minimum lot size and must be kept in agricultural use for a specified length of time.

Agricultural Protection Zoning (APZ) designates areas where farming is the desired land use, generally on the basis of soil quality as well as a variety of locational factors. APZ ordinances vary in what activities are permitted. The most restrictive regulation prohibits

any uses that might be incompatible with commercial farming. The density of residential development is limited by APZ. Maximum densities range from one dwelling per 20 acres to one dwelling per 640 acres in the Western states.

APZ helps townships and counties reserve their most productive soils for agriculture. It stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development, thus reducing conflicts between farmers and their non-farming neighbors. APZ is also used to conserve a critical mass of agricultural land, enough to keep individual farms from becoming isolated islands in a sea of residential neighborhoods. Maintaining a critical mass of agriculture land in farms allows the retention of an agricultural infrastructure and support services, such as equipment dealers repair facilities, mills, fertilizer and pesticide suppliers, veterinarians, spraying and seeding contractors, food processors and specialized financial services. All of these agricultural businesses need their farm customers to stay profitable. APZ can also limit land speculation, which drives up the fair market value of farmland. By restricting the development potential of large properties, APZ is intended to keep land affordable to farmers. A strong ordinance can demonstrate to farmers that the township sees agriculture as a long-term, economically viable activity, instead of an interim land use. Finally, APZ helps promote orderly growth by preventing sprawl into rural areas, and benefits farmers and non-farmers alike by protecting scenic landscapes and maintaining open spaces.

In dealing with the issue of farmland preservation, cost of implementing and maintaining the various programs stands as an essential criteria to their successfulness. The recommendation of implementing a PDR program for the county stands as a protectionary tool which at its inception will only be able to protect a limited number of farms and farming areas, mainly due to cost constraints. The issue of cost constraints is not involved with the enactment of agricultural protective zoning for a township. APZ stands now as the most immediate and effective manner in which the townships of the County can ensure a future, which includes agriculture. The Task Force, within this plan, will suggest to townships the areas in which Agricultural Protectionary Zoning may be appropriate.

#### **Advantages:**

- ⇒ Provides orderly and systematic transition in land-use that benefits all land uses through public hearings and local decisions.
- ⇒ Helps prevent objections to normal and necessary farming operations that can transpire when residential development moves into agricultural areas in an unplanned manner.
- ⇒ Eliminates agricultural land from being assessed at developmental value.
- ⇒ No public outlays, other than time and energy, are spent participating in the zoning change process.
- ⇒ Makes a community more attractive by furthering the preservation of open space, unique natural resources and natural terrain features.
- ⇒ Allows important community decisions to be made within the community.

- ⇒ Protects individual property owners from harmful or undesirable uses of adjacent property and makes market predictable.
- ⇒ APZ is flexible, if economic conditions change; the zoning can be modified as necessary.

### **Disadvantages:**

- ⇒ Cannot change or correct past land-use patterns.
- ⇒ Possible legal issues surrounding the landowners bundle of rights. There is a need for clear public purpose
- ⇒ Can only be as strong or secure as individual community's commitment to purpose. Variances at the discretion of township zoning board

## **Agricultural Zoning - Township Enacted**

The steps required by the Ohio Revised Code to adopt rural zoning are the most complex procedures required of local government. These steps to enact rural zoning include:

### ➤ **Determine public opinion**

It is essential to assess the degree of general interest or concern of residents. Community concern can be assessed through a number of activities. Elected and community leaders can assist with information gathering. Survey research among registered voters can achieve a reliable indication of current and long-range concerns. Variations of public hearings can be utilized as an information-gathering tool.

### ➤ **Organize**

After public opinion has been determined in support of such efforts, the Zoning Commission, along with supporting advisory and educational groups, should be appointed. Many people should be involved on various levels of formulating the resolution to enhance understanding of the proposed resolution and better represent all segments of the population. The advisory committee can also serve as an educational coordinating group and steering committee. Citizen representation on the committee should be adequate enough to represent a broad cross section of persons living in the township. State law requires an accurate accounting of campaign funds. The use of tax monies is a legitimate expenditure when preparing a zoning resolution. However, volunteers do the majority of work.

### ➤ **Develop the zoning resolution**

Legal challenges at the local level are often on procedural or technical grounds. It is important to follow the specific procedures as outlined by the Ohio Revised Code. The zoning commission and advisory committee should develop the proposed resolution in detail. Weak or vague articles written with the intent to avoid controversy only cause problems in the future. The Model Zoning Regulations, 2nd edition, Ohio Department of Development, State of Ohio, is an excellent resource. To avoid litigation, spell out terms in detail. Specifics are important because zoning resolutions have the force of law when adopted. The first section to be developed is the purpose. This Farmland Preservation

Plan can stand as the point of purpose, with the zoning resolution a tool to carry out the plan.

➤ **Conduct hearings**

The five members of the zoning commission must hold legally advertised public hearings. The format of the hearing is to inform participants, rather than a debate of the merits. Guidelines for conduct during the hearing should be distributed prior to the hearing. The text of the resolution should be available also. If any changes are made to the text and map, a second round of hearings must be held. After the township officials accept the text, they again hold a public hearing. If any changes are made, the zoning commission must approve the changes. If the zoning commission disapproves, the township trustees may overrule, if there is unanimous consent and another hearing is held. Finally, the resolution is filed with the Board of Elections at least seventy-five days prior to Election Day.

➤ **Conduct an educational campaign**

A well-planned educational campaign is essential to have informed voters. The educational plan adopted months earlier must be carried out during this phase. Support groups, as well as opposition groups will develop at this time. The educational committee should be prepared to work with all groups to provide better information to the citizens of the community.

➤ **Referendum vote**

Voting is the responsibility of the citizens. If the proposal is defeated, an evaluation should be done. This evaluation is to determine whether changes to the resolution could alter the outcome.

In the State of Ohio, counties and townships both can enact zoning regulations and in particular for this plan, agricultural zoning, but these are not the only entities with the capability to protect agricultural areas. Outside of the county and township level, an individual landowner can enact the formation of agricultural districts under the Ohio Revised Code. Both avenues of agricultural protection will be described.

## **6) Agricultural Districts - Owner Initiated**

Under section 929.02 of the Ohio Revised Code, any person who owns agricultural land may file an application with the county auditor to place the land in an agricultural district for five years if during the three calendar years prior to the year in which the application is filed, the land has been devoted exclusively to agricultural production or devoted to and qualified for payments or other compensation under a land retirement or conservation program under an agreement with an agency of the federal government and if:

1. The land is composed of tracts, lots, or parcels that total not less than ten acres; or

2. The activities conducted on the land produced an average yearly gross income of at least twenty-five hundred dollars during the three-year period or the owner has evidence of an anticipated gross income of that amount from those activities.

With the application, the owner must submit proof that his land meets the requirements established under this division.

The agricultural district program receives high praise from Fred L. Dailey, Ohio Agriculture Director. “The ag district law is probably the best farmland preservation program the state has today because it can help keep the farmer on the farm and the land in agricultural production,” said Dailey. “By working through the local county’s auditor’s office to have their farmland designated as an ag district, farmers can gain protection from nuisance lawsuits, defer expensive development assessments until land is changed to a non-agricultural use and protect farmland from some eminent domain land acquisition.”

### **Gain Protection from Nuisance Lawsuits**

With a successful application, the farmer gains many advantages towards securing agricultural practices on their land now and in the future. Agricultural status can protect farmers from nuisance lawsuits as long as the farmer is following acceptable best management practices.

### **Avoid Sewer and Water Line Assessments**

Another aspect of development that can impact a farm is the extension of sewer and water lines. These lines are usually paid for by assessments to the landowner, often based on frontage. A farmer with extensive frontage could face assessments large enough to require selling a portion of the farm to pay it. To prevent that, the law defers the assessment on ag district farmland until the land is changed to another use.

### **Eminent Domain Protection**

Eminent domain protection is also gained by placing land in an ag district. If eminent domain is used on 10 acres or 10 percent of the total ag district land owned by the farmer, the law calls for a review by the Director of Agriculture to determine if an alternative to the proposed project is possible

#### **Advantages:**

- ⇒ Completely voluntary program initiated by individual landowner.
- ⇒ Farmers can gain protection from nuisance lawsuits.
- ⇒ Farmers can defer expensive water and sewer assessments until the land is changed to a non-agricultural use.
- ⇒ Farmers in district receive extra right to farm protection
- ⇒ Limits on public investment for non-farm development in districts

- ⇒ Agricultural impact statement required for public projects in districts
- ⇒ Infrastructure and system already in place, no extra cost to county

**Disadvantages:**

- ⇒ Public utilities exempted from limits on eminent domain

## 7) Growth Management Techniques

Growth management techniques attempt to prevent sprawl and control growth into undeveloped areas by directing development into areas, which possess or are scheduled to possess the infrastructure to accommodate such development. Generally, these techniques include: urban growth boundaries, mechanisms for outright purchase of land, environmental corridors, green belts, and programs for incremental growth. The basic concept to the majority of these techniques is one in where an inventory of existing uses is compiled along with projections for population and economic growth over a stated period, and from these figures the pattern and place of new development is guided. This goes far beyond the traditional purpose of zoning by integrating the physical conditions of the present with the expected growth of future.

### Central Infrastructure Districts (CID's)

A growth management technique, similar to urban growth boundaries (which have successfully controlled development in states such as New Jersey and Oregon) termed Central Infrastructure Districts is currently being proposed in the state's draft of H.B. 645. Central Infrastructure Districts or CID's will be the areas where individual cities expect their growth to occur in over the next 25 years. Under the current draft of H.B. 645, preferential treatment will be given by the state's various funding departments to projects which are located within these designated areas.

**Advantages:**

- ⇒ Addresses the root of problem behind the issue of farm land loss
- ⇒ Focuses on existing core and addresses deficiencies, which motivate residence to flee to the country
- ⇒ Establishes clear pattern for development and real estate markets to follow

**Disadvantages:**

- ⇒ Limited growth area can drive land and housing cost beyond natural market rate
- ⇒ County oversight runs contrary to history of home rule from townships
- ⇒ Rural communities do not possess the ability to motivate these changes or improvements from cities

## 8) Urban Redevelopment

The majority of tools designated within this plan aimed at preserving farmland in Trumbull County are focused or geared to the rural areas where farming is currently being threatened or likely will be threatened in the near future by residential development. These strategies can all be effective methods to attain the desired end, but there is another side to the problem which needs to be addressed if farmland preservation is to be truly successful. This other side of the problem is inner city redevelopment.

When thinking about the issue of farmland loss, the first question that should be asked is, “what is motivating people to move to our county’s cornfields”? The answers to this question can include:

- A declining educational system
- An aging transportation system
- A deteriorating housing stock
- Perceptions of crime and personal safety
- Expanding tax burden

All of these responses whether perceived or actual have been cited as the motivating factors which have pushed more urbanites to the urban-rural fringe. All of these reasons focus on a growing dissatisfaction with the urban core and the conditions faced by its residents. The issue of farmland preservation can not be truly addressed until many of these issues are met by the county’s cities.

The townships within the county which are experiencing the loss of farmland presently and/or in the future are unable to systematically address the problem. They do not possess the authority or ability to fix the problems of the cities. They can only try to find a balance for agriculture and the growth being driven from urban flight. It is the responsibilities of the municipalities to address their own deficiencies.

It is the recommendation of the Task Force to the County Commissioners to support all efforts of redevelopment throughout the county.

An example of a current urban redevelopment effort can be seen in the Sunshine Program. The Sunshine program is a consortium between the city of Warren and Trumbull County. The program initially was aimed at purchasing and rehabilitating dilapidated houses within the existing housing stock. \$30,000 to \$40,000 dollars is made available to each approved application to improve the structure’s foundation, windows, roof, heating system, paint, or any combination of these areas which are found to be below an acceptable level. Beginning in 1997, the program has expanded its role to include home construction. In the past three years since entering this new arena, the program has completed or will complete over 120 new units. This number of new homes, in combination with the numerous homes that have been rehabilitated, stands as one of the most effective methods in dealing with urban sprawl. The Sunshine Program and other like programs must be supported and recognized by the general public and

public officials to begin to reverse the perception of the conditions that exist in our aging cities. To fix the problem at the edge, attention must be devoted to the center.

The Sunshine Program is just one example of the various urban redevelopment activities currently underway. These efforts aimed at neighborhood stabilization are taking place within the various cities around the county, with the majority of activity transpiring within the city of Warren. The programs attempt to stabilize by providing home ownership opportunities to neighborhood residents and upgrading the built environment. The Homeowner Rehabilitation Program offers low-interest loans and grants to homeowners to bring properties to a minimum standard. In addition, tax credits are offered for new construction or existing home rehabilitation to further stimulate the neighborhood stabilization.

The urban redevelopment efforts currently being undertaken are not limited to the residential housing stock. Programs geared to interject economic activity are also part of the agenda. A Revolving Loan Fund is established to create jobs by making available low-interest loans for new business start-ups or existing business expansion. Enterprise Zones are set up throughout the county to offer tax abatements to businesses that locate within these zones. These tax abatements can extend up to a 70 percent abatement for new businesses or industries. Currently within the city of Warren there are nine abatements, and over eighty throughout the county. Also, within the city of Warren, two business parks are located. These parks offer locational amenities for the companies that locate there.

## **9) Land Trust**

A land trust can be defined as a non-profit, grass roots, conservation organization directly involved in protecting natural, recreational, scenic, agricultural, historic, or cultural property. Most land trusts are private, nonprofit corporations. These private land trusts are becoming increasingly more prevalent around the country and provide a means for permanently preserving land as open space or agriculture. There are also a few governmental or quasi-governmental bodies which operate with the freedom and flexibility of a private trust. According to its intention of design, the land trust's normal procedure for conservation efforts is through the purchase of land or easements upon land. Land trusts often work cooperatively with governmental agencies by acquiring or managing land, researching open space needs and priorities, and assisting in developing conservation agendas. The funding for the trust is primarily through member donations, foundation and government grants, and gifts of land and easements. Over one-half of the land trusts in the country are staffed completely by volunteers, and 60 percent buy land for conservation. Of the remaining forty percent who do not actually purchase land, their roles cover areas such as managing land owned by others, advising landowners on ways to preserve their land or helping negotiate conservation transactions.

**Advantages:**

- ⇒ Provides means for permanently preserving farm land and open space
- ⇒ Source of technical assistance to landowners deliberating land preservation options
- ⇒ Several national land conservation organizations offer guidance to problems encountered at the local level, as well as the procedures for establishment
- ⇒ Typically initiated by citizen group - strong community involvement
- ⇒ No public outlay, typically staffed and run by volunteers

**Disadvantages:**

- ⇒ Funding must initiate at the local level before state and federal monies are pursued
- ⇒ Initial start-up years of a land trust difficult to weather due to initial expense
- ⇒ Can supplement county wide preservation strategy; can not stand as the only tool to accomplish the desired end

For many of the tools included within this plan aimed at retaining farmland, the formation of a local land trust is essential. In speaking with farmers and concerned citizens about the potential of Transfer of Development Rights, Purchase of Development Rights, Lease of Development Rights, Land Donation, Conservation Easements, and Deed Restrictions, concerns are raised about creating another governmental agency to monitor and enforce the policies of such programs. Whether it is distrust of placing full control of agricultural areas to a government agency or fears of governmental inefficiency which motivate these concerns, the point is clear. The formation of a local Land Trust or expanding the area of a neighboring land trust to include the Trumbull County area is needed. For a conservation easement program to be successful, a Land Trust is needed to monitor and enforce the language of the program. The same can be said about deed restrictions, TDR's, PDR's, and LDR's.

## 10) Deed Restrictions

A less frequently used method for preserving open spaces and farmland is the requirement of a deed restriction. The precise nuance and limiting language of the restriction is determined by the individual need of each indigenous area, but most restrictions follow a general course of prohibiting certain activities which could potentially threaten environmentally sensitive areas on a property. Once a deed restriction has been established, the restriction travels with the deed and does not expire with a change in landowner. The conditions and manner in which the restriction can be removed from the property is stated explicitly within the restriction.

**Advantages:**

- ⇒ No extra source of funding needed for program
- ⇒ Restriction travels with the deed and does not expire with change in land owner
- ⇒ Aimed at limiting or prohibiting certain types of activities or land uses

- ⇒ Administered by planning department, but initiated at township level
- ⇒ Prohibits land being assessed at use restricted within the deed - i.e. development value

**Disadvantages:**

- ⇒ Typically pertains to new development, but can be negotiated with existing land owner for existing land use
- ⇒ Performed on individual basis, hard to accomplish desired purpose over large areas

## **11) Cluster Development**

Cluster development is a type of zoning which provides a community a method to allow development to transpire in a manner that preserves large blocks of open space and/or farmland. This style of development concentrates buildings in specific areas on the site to allow the remaining land to be used for these purposes. Those specific areas in which the buildings are permitted represent a small percentage of the area as a whole. Planned Unit Developments are a common example of cluster type residential development

**Advantages:**

- ⇒ Means to preserve agricultural lands, open space and other natural resources, while providing density for developers
- ⇒ Very small administrative cost, same as those surrounding typical zoning codes
- ⇒ Compromise between economic return and controlling growth
- ⇒ Provides more flexibility regarding regulatory controls
- ⇒ No extra sources needed for funding - Cost assumed by developer and new property owners

**Disadvantages:**

- ⇒ Contrary to many current subdivision regulations
- ⇒ Helps curtail and mitigate farm land loss within subdivisions and not to individual, piece meal development
- ⇒ High initial planning and engineering cost, but most of costs are assumed by developers
- ⇒ Places residential development in close proximity to farming - need for agreement for both use to exist without legal issues

## **12) Ohio Family Farm Loan Guarantee Program/H.B. 621**

House Bill 621 was signed into law on March 16, 1998. This bill was created to help farmers obtain the capital needed to acquire or expand a farm or start an agricultural

enterprise. When signed into law, House Bill 621 was a pilot program with a total funding of \$5 million. The program terminated on June 30, 1999, but the state legislature has extended the program for an additional two years with the same level of funding.

Under the program, funds can be used for land acquisition, constructing, reconstructing, rehabilitating, remodeling, renovating, enlarging or improving agricultural buildings and acquiring stationary machinery and equipment to be used in agriculture. The funds cannot be used as working capital or for refinancing, financing inventory or receivables, speculative real estate development, relocation costs, or the purchase of rolling stock or livestock.

To be eligible for the program, the applicant's project must be undertaken in an area in which agriculture is the primary land use and may reasonably be expected to remain such during the time of the loan. The program will guarantee up to \$200,000 or 40% of the bank loan, whichever is less for a period of up to 10 years. The state's guaranteed portion of the bank's loan shall not exceed a fixed interest rate of 5%. A minimum down payment of 10% is also required for all loans under the guidelines of the program. Finally, financial institutions eligible for participation in the program are defined as any banking corporation, trust company, savings and loan association, or building and loan association; or corporation, partnership or other institution engaged in lending or investing funds for agriculture or other business purpose and that is eligible to become a depository for public monies under Section 135.03 of the Ohio Revised Code.

There are three key guidelines that are needed for a successful application: requirement of the applicant, requirement of a business plan and procedure for application. These areas must be satisfied for full consideration.

#### **Requirement of the Applicant:**

- ◆ Demonstrated need for the state's loan guarantee in order for the project to go forward
- ◆ The ability to repay the loan from the cash flow generated from the proposed agricultural operation to provided adequate security for the loan
- ◆ Possession of sufficient education, training or experience in the type of farming or agricultural enterprise surrounding the applicant's request for financial assistance

#### **Requirement of the Business Plan:**

- An overview of the type of agricultural operation the applicant anticipates conducting
- The operating management strategy for the farm or agribusiness
- A five-year marketing plan which includes a strategy for advertising and/or seeking prospective buyers for the agricultural operation's product(s)

- A current balance sheet, budget and cash flow projections

**Procedures for Application:**

- All applications must first be made to an eligible financial institution. The Ohio Department of Agriculture makes available a list of eligible lenders.
- Evaluation by the financial institution of the application to determine if the loan can be made without a loan guarantee in order to finance the project
- If a state loan is requested, the financial institution will forward the loan application to the Ohio Department of Development's Office of Financial Incentives for processing
- The Ohio Department of Development will make sure the application meets its requirements and then forward the application to the Ohio Department of Agriculture. There, the Agriculture Financing Commission, an independent loan review committee appointed by the governor, will evaluate the application and make a recommendation to the Director of Agriculture
- If approved by the Director of Agriculture, the approved application is forwarded to the Ohio Controlling Board, which must approve release of funds from the Family Farm Loan Guarantee Fund. The Director will then work closely with the applicant's bank to close the loan guarantee.

Farmers considering eligibility for the program should contact Howard F. Wise of the Ohio Department of Agriculture @ 8995 East Main Street, Reynoldsburg, Ohio 43068-3399 or telephone @ 614/466-2732.

**13) Purchase of Development Rights (PDR)  
A.k.a. Agricultural Easements**

Purchase of Development Rights programs exist as one of the most permanent tools available towards preserving the integrity of farmland and open space in a community. Under these programs, a landowner is paid the fair market value of the development rights of his/her property in exchange for an easement being placed on the land. The nature and extent of the easement placed on the land can vary from limiting development of non-agrarian uses to strict limitation upon any uses that threaten farmland or open space. The value or amount received for these development rights is arrived from the difference between the development value and the agricultural value of the land. PDR programs are administered on a voluntary basis and the organization or entity, which purchases the development rights, is typically a land trust or some other agency usually linked to local government. The provision, which restricts the land after the development rights are sold, is binding on any future owners, as well as the original landowner. All

the other “bundle of rights” associated with the land remain in tact. The landowner can sell and manipulate the land at his/her own discretion as long as the change does not infringe upon the conditions of the easement. The funding for PDR programs vary, with many communities funding their own programs through bonding or tax schemes.

Within the discussion of farmland preservation strategies, the concept of Purchase of Development Rights stands as a means of protection being implemented widely across the country from New Jersey in the east to Florida in the south, and Washington in the northwest. The idea of preserving farmland for Trumbull County with PDR’s has been discussed numerous times during the Task Force’s bi-monthly meetings. Recently the Ohio Legislature passed State Bill 223, which establishes the framework for an Agricultural Easement Program. This piece of legislation now makes it possible for individual counties to initiate a PDR Program. To better understand the capability and structure of the program under current law, four members of the Task Force traveled to Medina, Ohio, for attendance of a conference sponsored by the Ohio Department of Agriculture’s Office of Farmland Preservation on the rules of the new Easement Program. The Program’s structure is detailed below.

The State has established a Fund for the purpose of acquiring Agricultural Easements and pursuant of Section 901.22 (D) of the Ohio Revised Code, the director of the Ohio Department of Agriculture may make matching grants to political subdivisions and organizations for such purposes. These matching grants will be awarded based on applications submitted to the Director by a political subdivision or organization on behalf of the landowner. To facilitate a local PDR Program, the steps necessary for the formation of a local land trust will be recommended within this plan. The newly created Land Trust would fulfill the requirements of the submitting organization detailed in the language of the program. The Land Trust would also be responsible for the monitoring and enforcement requirements of the program for each conservation easement established in the county.

#### **Application Procedures for Agricultural Easement Matching Grants:**

- The matching grant application and funding cycle shall be established by the Director. The public shall be notified of the application and funding cycles through the media and publications directed to the political subdivisions and organizations.
- Political subdivisions and organizations may submit an application for matching grants from the Fund. The application shall be submitted on forms provided by the Director on behalf of eligible landowners. All applications for matching grants shall be postmarked not later than the deadline designated by the Director.

- Applicants must demonstrate to the Director that they have a program capable of administering an Agricultural Easement Program and serving as the Holder of any Easements. Such a program must include an administrator, an oversight board, a budget, and have the capability of supervising and enforcing the provisions of an Agricultural Easement. Documentation of program capability must be submitted for each application cycle that applications are submitted.
- The application must be accompanied by a resolution or ordinance from the legislative authority of the political subdivision or by a resolution from the oversight board of the organization stating support of the application for a matching grant from the Fund, that they have committed to supply the local match, and that the grant from the fund shall be used only for the direct purchase of an Agricultural Easement. Local match may include both cash provided by the political subdivision or organization or the donation of a portion of the Easement value by the Landowner, or a combination of both.

**Eligibility Requirements:**

- In order for the political subdivision or organization to be eligible for matching grants from the fund, the land proposed for Agricultural Easement purchase must meet the following criteria:
- Land must be valued for purposes of real property taxation at its Current Agricultural Use Valuation (CAUV) under section 5713.31 of the Ohio Revised Code when the easement is granted
- Land must be located in an Agricultural District
- Mineral rights on the land must be subordinate to the proposed Agricultural Easement or, if extraction occurs, must not negatively impact the land for purposes of the fund.
- In the event there is no long-range plan for the Political Subdivision where the land is located, or the land is located outside a designated Agricultural Area in the plan, an organization submitting an application for a matching grant from the fund must obtain a resolution or ordinance from said political subdivision in support of the easement.

**Basic Ranking Criteria:**

The Director shall establish by guidelines a ranking system to prioritize projects requesting matching grants from the fund. This ranking system shall provide weighting values to the following criteria:

**1. Soil Types and Productivity of the Soils on the Farm.**

Soil types and agricultural productivity vary across the state and across the farm. Natural characteristics include topography, drainage, soil depth, soil texture, drainage capacity, and affect the agricultural productivity. Soil characterized as prime and with a high productivity index are priority soils for this program. Soils

may be classified as unique or locally important by the local community due to their support of specialty crops such as orchards or root crops. The Director may use a generally accepted method for measuring soil types and productivity such as those developed by state and federal agencies, universities, or other scientifically based methods.

**2. Long-Range Plan.**

A current long-range plan of a political subdivision that designates agricultural areas.

**3. Development Pressure.**

Farmland that is faced with existing or potential pressures that can permanently alter the ability of that farmland to be used for agriculture. Proximity to developing areas and various types of infrastructure, such as major highways, freeway interchanges, road frontages, water and sewer lines and treatment systems can make farmland more susceptible to development. In addition, unique physical or natural characteristics may also make the farmland more attractive for development.

**4. Protected Areas.**

Proximity of farm to protected areas, including adjacent or nearby farmland with agricultural easements; parks, open spaces, wildlife refuges, and other public or private lands; and soil and water conservation buffers.

**5. Farm Management Practices.**

The operation of the farm includes utilizing Best Management Practices. These practices include enrollment in a Soil and Water Conservation District (SWCD) conservation plan and any other management plan appropriate to the operation of the farm such as manure management plan or a forestry management plan. In addition, the operation of the farm demonstrates a history of productivity; the farm's buildings, equipment and infrastructure have been maintained through capital investments, and the landowner has a plan of succession for the farm.

**6. Local Match.**

The governmental subdivision or organization is required to provide a local match in dollars or by the landowner providing a portion of the easement through donation or a combination of both as determined by the Director for each application cycle.

The Director shall serve as the Secondary Holder of any Agricultural Easement acquired with a grant from the fund. The applying agency is the primary holder. The percent of the matching grant and the total maximum amount of a grant shall be determined prior to the grant application cycle for that year. The maximum match available from the fund shall be a percent determined by the Director of the Fair Market Value of the Agricultural Easement as determined by appraisal. A Contingent Agreement must be made prior to application.

### **Funding Sources:**

Political subdivisions and organizations shall use the following as their contribution for a matching grant from the Fund:

- Revenue generated through general obligation bonds pursuant to Section 133.61 of the Ohio Revised Code, revenue bonds pursuant to Section 133.60 of the Ohio Revised Code, real property tax levies pursuant to Section 5705.19 of the Ohio Revised Code, sales tax pursuant to Section 5739.026 of the Ohio Revised Code, and general revenue funds pursuant to Section 5301.691 of the Ohio Revised Code.
- Funds received through gifts, bequests, devise and other sources.
- The value of the donated portion of an Agricultural Easement on a farm.

The Agricultural Easement, as proposed in the application, must be acquired within 90 days after receiving the funds or the money must be returned to the department and credited to the fund. The political subdivision or organization may request an extension in writing specifying reasons for the request. The extension may be granted at the discretion of the Director.

### **Grant Agreement and Agricultural Easement Agreement:**

All political subdivisions and organizations that are awarded matching grants from the Fund shall enter into a grant agreement with the Director that specifies the term and conditions of the grant. Once the grant agreement is finalized, there shall be an Agricultural Easement agreement between the political subdivision or organization and the landowner.

An Agricultural Easement agreement shall include the following provisions required by Section 901.22 (2) of the Ohio Revised Code:

1. Terms and conditions of extinguishment.
2. A provision requires the landowner upon extinguishment to pay the holder of the Agricultural Easement a recoupment amount.
3. A Provision that states that the political subdivision or organization will collect the recoupment amount from the landowner and remit to the Director his percentage, (The percentage of the recoupment due the Director is the same as the percentage of the original value of the Easement paid by the Director).

The model Agricultural Easement agreement attached to the rules shall be adapted for use as the Agricultural Easement agreement between the political subdivision or organization and the landowner. Adjustments to this model may be made to address the specific needs

and wishes of a landowner. However, the minor modifications and proposed changes in the Easement agreement must be approved by the Director.

**Easement Supervision and Enforcement:**

- Political subdivision or organizations shall establish a monitoring program to insure the provisions of the Agricultural Easement are being met. The monitoring program shall include, but not limited to the following:
- The holder of the Agricultural Easement shall be responsible for supervising and enforcing the Easement.
- Agricultural Easements acquired with a grant from the fund shall be monitored at least annually.
- The Director shall receive a report verifying that the monitoring was conducted and listing any changes that have occurred to the farm.
- The holder of the easement may assign or contract with another entity to monitor easements, but the holder retains the responsibility for enforcing the terms of the easement.
- A detailed baseline report shall be developed to serve as a basis from which to monitor future changes. The report shall consist of text, photographs and maps describing the current development, structures, features, and areas where future development may occur as provided for in the easement.
- The Director shall receive a copy of the baseline report for any farm if a grant from the fund was used to purchase any portion of the easement.
- The Director or designee may conduct an independent inspection of a farm to determine easement compliance if a grant from the fund was used to acquire the easement. Access to the farm shall be provided under the terms of the easement.
- In the event of an easement violation, the holder of the easement shall notify the landowner and take whatever steps necessary to correct the situation. The Director shall be notified within ten days of any Easement violation and the corrective measures taken on a farm that a grant from the fund was used to acquire the easement.

**Easement Extinguishment:**

- It is the intent of the General Assembly that Agricultural Easements purchased in whole or in part from the fund be held in perpetuity or as long as agriculture is possible on the land under the Easement. An Agricultural Easement purchased in

whole or in part from the fund may be extinguished only in the manner specified in this section, as follows:

- The landowner with an Agricultural Easement purchased in whole or in part from the fund may request from the holder and the secondary holder of the Agricultural Easement that the Easement be extinguished, either in whole or in part, pursuant to Section 901.22 (A) of the Ohio Revised Code.
- The political subdivision or organization that is the holder of the Agricultural Easement shall investigate the claim by the landowner that there has been an unexpected change in the conditions of or surrounding the land that makes it impossible or impractical to continue use of the land for agricultural purposes described in the easement. These changes can be:
  - a) Natural physical changes to the land that have occurred which are generally irreversible in nature and permanently affect the agricultural use of the land; or
  - b) Development pressure adjacent to or in close proximity to the land that renders the agricultural use of the land impossible.

The investigation by the political subdivision or organizations must include an on-site inspection of the farm and a conference with the landowner. Any costs incurred by the political subdivision or organizations to conduct the investigation may be charged to the landowner. The results of the investigation will be used by the Director and the political subdivision or organization to determine whether to approve the request for extinguishment.

- The holder and the secondary holder of the Agricultural Easement must both approve a request from the Landowner for an extinguishment of an Agricultural Easement within 90 days of receiving said request, or the request is considered to be rejected.
- If the request for extinguishment is approved by the holder and the secondary holder, a resolution or ordinance from the legislative authority of the political subdivision or by a resolution from the oversight board of the organization stating support of the extinguishment of the Agricultural Easement is needed. The resolution or ordinance of approval along with any related supporting materials documenting the reasons for extinguishment shall be forwarded to the Director for purposes of record keeping in the department.
- Upon approval of the extinguishment of the Easement by the Director, the holder and the legislative authority or oversight board of the holder, the holder shall notify the landowner of the decision to approve the request for extinguishment, and notify the County Recorder of the extinguishment.
- If the landowner's request for extinguishment of the Agricultural Easement is not approved, then the landowner may appeal the decision to the Common Pleas Court.

The Political subdivision or the organization and the Director may seek expert advice from individuals, agencies and organizations to assist in developing objective criteria on which an extinguishment can be evaluated.

### **Recoupment of Funds:**

There shall be a recoupment of funds for the extinguishment of an Agricultural Easement purchased in whole or in part from the fund. The recoupment amount will be calculated by using the percentage of the fair market value of the land that was spent from the Fund at the time the easement was acquired, and applying that percentage to the Fair Market Value at the time the easement is extinguished.

An appraisal must be performed at the expense of the landowner requesting the extinguishment, to determine the fair market value. The appraisal must be done by a licensed appraiser, and the appraiser must be approved by the Director.

### **Advantages:**

- ⇒ Voluntary program, which landowner is under no compulsion
- ⇒ Provides compensation for difference between development potential of land and agricultural value
- ⇒ Makes land easier to pass to heirs due to land assessed at the lower agricultural value
- ⇒ Deed restriction guarantee with an escape clause if farming can be demonstrated as impossible
- ⇒ Programs have received generally favorable responses from public in regions of country which have instituted PDR's
- ⇒ Legislation established in state with passage of SB 223

### **Disadvantages:**

- ⇒ Funding - cost involved is primary disadvantage
- ⇒ Typically, funding linked to specific tax, but if not already established, very difficult to gain public approval - public cynical about programs designed to subsidize agriculture
- ⇒ No monitoring body available at county level to run program, Auditor has stated, "does not have the resources to administer the program"

## **14) Transfer of Development Rights (TDR)**

Transfer of Development Rights programs are similar to PDR programs in that they both deal with the "bundle of rights" associated with land ownership. Conceptually, a TDR program provides for financial compensation to property owners while society imposes land-use regulations to control growth and development. Within the structure of the program, the development rights are transferred directly from the farmer or landowner to

the developer. There is no purchasing agency as exists under the PDR programs. Under the program, permitted housing units are transferred from an agriculture area, often referred to as the sending zone, and are sent to a designated receiving zone. The receiving zone is determined to be an area in the community, which has the infrastructure in place or will have the infrastructure in the future to accommodate the development. The developer compensates the farmer directly for the value of the development rights in exchange for using these rights in the receiving area. TDR's are designed to minimize the objectives to zoning and preservation efforts, and alleviate the initial cost associated with the creation of purchasing entities needed for the PDR programs. These programs require little capital outlay from the designing governmental agency. The contribution from the government lies in the designation of the sending and receiving zones.

There are four basic elements needed to establish a TDR program:

1. A designated preservation zone
2. A designated growth area
3. A pool of development rights to be transferred from one property to another
4. A set procedure for rights to be transferred from one property to another.

**Advantages:**

- ⇒ Minimize objections to zoning and preservation issues by providing compensation to property owner while society imposes land-use regulations
- ⇒ No capital outlay of public money - exchange between developer and landowner
- ⇒ Works to further facilitate mandates of a community's comprehensive plan through land-use planning

**Disadvantages:**

- ⇒ Very complex and difficult to administer
- ⇒ Appropriate only in a very limited area and circumstance
- ⇒ Not effective or designed for rural areas
- ⇒ Has to be only avenue for developers to get around density restrictions
- ⇒ Must be part of comprehensive growth management plan (currently unavailable in the county)

Within this section of the Farmland Preservation Plan, a list of tools available to jurisdictions for farmland retention has been compiled. The programs within the list vary in the scope and manner in which they benefit the agricultural industry. From the procedural protectionary powers of agricultural protective zoning, to an infusion of cash through the Family Farm Loan Program, these tools from a slightly different perspective, take focus on the same problem.

The tools available have been addressed for their advantages, disadvantages, and status under the Ohio Revised Code and have been weighed under the context of the situation

surrounding the agriculture industry of the county. Also, it should be noted that the recommendations are just that, recommendations. Those tools which are not highlighted may stand as effective tools for an area or township due to circumstances outside our knowledge and should not automatically be precluded as a possible solution. These are the legislative recommendations of the Task Force.

1. Encourage farmers throughout the county to place their land in Agricultural Districts. A low percentage of agricultural land within the county enrolled in the CAUV program is also designated as an Agricultural District. This designation contributes an extra level of protection to the land and the daily agricultural-related activities that surround it. This is the only tool available in which the individual farmer initiates the process to protect agriculture in the county. The responsibility falls on the individual to protect the industry. If agriculture is to remain a viable and productive economic activity in our county, all individuals participating within the industry should utilize this tool.
2. Encourage townships to explore the receptiveness of Agricultural Protective Zoning. In townships which define their character as rural, Agricultural Protective Zoning exists as a tool to ensure that the rural character remains. In the townships of the Northern tier, such as Gustavus and Kinsman, where over 65% of the total land area is actually utilized in agricultural production, Agricultural Protective Zoning would be appropriate. By the nature of the zoning process, a majority of the residents of the township proposing the designation would have to approve the zoning change. Due to this fact, only those townships which self-determine the importance of farming in the township could enact Agricultural Protective Zoning. Agricultural Protective Zoning, like Agricultural Districts, is a second method to protect the future presence of agriculture with little to no initial public outlay or costs.
3. Explore a dedicated funding source to establish a Purchase of Development Rights Program (PDR). In 1999 the State of Ohio established the framework for PDR programs at the local level. To initiate a local PDR program for Trumbull County, the determination of a source of local funding is needed. Under the program, the local PDR program is required to offer a local match to the money the state is generating to purchase the development rights. A possible source of funding could be realized by dedicating CAUV recoupment to the PDR program. The design of the program is based upon competition between individual applications across the state which are weighed against criteria established by the Office of Farmland Preservation. Based upon review of the criteria, Newton Township stands as an area most suited for a successful application within Trumbull County.
4. Establish a local land trust or links to an existing land trust. Under the PDR program the state has designed, one of the requirements is that of enforcement. Typically, conservation easements or development rights are held by a land trust. There are no land trusts currently operating in Trumbull County. For a PDR

- Program to emerge in the county, this must be addressed. This can be remedied by establishing ties to the American Farmland Trust, a national land trust that just recently established an Ohio office. This organization could offer the county guidance upon the best possible course of action to remedy this deficiency.
5. Push for changes in the CAUV Program. It has become clear to the Task Force that the current ten-acre parcel size, \$2,500 agricultural product limits, and three-year recoupment period are not positively affecting the agricultural industry. Over participation in the program has distorted the appearance of agriculture within the county. (1997 Census of Agriculture list 112,477 acres in farming for the county, while the Auditor reports 135,578 acres participating in the CAUV program in 1998.) Higher limits and a longer recoupment period could help restore the original intent of the program. These changes would add to the county's tax revenue by more accurately representing land use reality and help provide a funding source for the proposed local PDR Program.
  6. Promote the Ohio Family Farm Loan Guarantee Program. The program was created in 1998 to help farmers obtain the capital needed to acquire land or capital equipment to expand a farm's operations or start an agricultural enterprise. One of the most frequently cited obstacles to farm operations throughout the county is lack of capital to upgrade operations. The program was designed to overcome this obstacle, but due to its short time of existence, public awareness has been limited. Dissemination of this programs availability runs parallel to the overall purpose of the Task Force and should be promoted.
  7. Support urban redevelopment throughout the county. Encouragement and support should be granted to programs designed to: refurbish older urban and first ring suburban housing stock, address a declining education system, and reverse perceptions of crime and personal safety. All of these areas are often cited by urbanites as they migrate from the city to further extend the urban-rural fringe. Urban redevelopment addresses these deficiencies, and at the same time grants to the issue of farmland retention a proactive strategy. The threat to farmland from residential development will be greatly diminished if the number of dissatisfied urbanities seeking to move away from the problems of the inner city is reduced. To fix the problem at the edge, attention must be devoted to the center.

## **15) Trumbull County Comprehensive Plan**

A Countywide Comprehensive Plan can be used as a tool to encourage smart growth while preserving farmland in Trumbull County.

It is therefore recommended to the Trumbull County Commissioners that the Countywide Comprehensive Plan is updated as soon as Trumbull County's Geographical Information System (G.I.S.) becomes available. The Countywide Plan will update the land use survey involving township trustees.

## **16) Public Awareness & Education**

Public support can be used as a tool to preserve farmland. Making the public aware of the need to preserve farmland in our county can make the difference between success and failure. It is critical to the success of farmland preservation that an organization be established or an existing group appointed that contains a continuing education component and a legislative review subcommittee to research the immediate and future effects of local, state and federal legislation. This could be a valuable tool particularly with issues involving taxation such as capital gains and inheritance issues.

During the next several years, Trumbull County will have established GIS and a new countywide comprehensive plan should be underway. If an organization is established/appointed to provide public awareness and education of the importance of farmland preservation in Trumbull County, the recommendations for farmland preservation are more likely to become a successful part of the Countywide Comprehensive Plan.

It is therefore recommended that:

A permanent Research and Educational Committee be established or appointed. The purpose of this committee could be as follows:

- 1) Review and evaluate all legislative proposals at a local, state and federal level related to the Agricultural Industry.
- 2) Responsible for the oversight of continued public education upon plan completion by developing educational material related to farmland preservation and related subjects for use in schools, by elected officials, by developers, by realtors, and the general public.
- 3) Update and continuation of Farmland Preservation Plan as GIS and new Census information become available.
- 4) Maintain a list of speakers for various topics including estate planning, tax seminars, and best management practices.
- 5) Catalog and distribute possible land use farmland preservation grants.
- 6) Aid in the development of a new County Comprehensive Plan when it relates to agricultural matters.

- 7) This group also catalogs, pursues, and distributes possible funding for educational programs in order to reach the public and develop public support and understanding. Funding may come through grants or other means to acquaint the public with the local situation in Trumbull County and the need for farmland preservation.

It is also recommended that this committee become connected to an existing agricultural organization for continual support, such as telephone, address, office equipment, and material storage.

It is a recommendation that the Research and Educational Committee that is established or appointed conduct a countywide survey to gauge public awareness and raise concern over the issue of farmland preservation.

**Survey Results**

Many of the programs which would aid farmland preservation begin at the local or township level. Public officials were surveyed, since it is felt that they are most likely to reflect the views, desires, and knowledge of their constituents. These officials also have the ability to influence farmland preservation at the local level as they are the elected “voices” who have the power to raise awareness and implement farmland preservation programs, such as Agricultural Zoning, as well as some of the other tools discussed earlier in this document. The results from this survey follow.

Out of approximately 300 surveys mailed, 50 surveys were returned to the Trumbull County Planning Commission. The character of the communities that responded were broken into percentages of the total as follows:

**10%-Urban                      34%-Suburban                      56%-Rural**

The following twenty-five communities responded to the survey:

<b>2-Bazetta</b>	<b>Bloomfield</b>	<b>Braceville</b>	<b>Brookfield</b>
<b>2-Champion</b>	<b>3-Cortland City</b>	<b>2-Farmington</b>	<b>Fowler</b>
<b>3-Gustavus</b>	<b>3-Hartford</b>	<b>2-Howland</b>	<b>4-Hubbard</b>
<b>2-Kinsman</b>	<b>3-Liberty</b>	<b>2-Lordstown</b>	<b>2-McDonald</b>
<b>Newton Falls</b>	<b>Newton Twp.</b>	<b>Southington</b>	<b>Vernon</b>
<b>4-Vienna</b>	<b>2-Warren City</b>	<b>Warren Twp.</b>	<b>3-Weathersfield</b>
<b>2-Yankee Lake</b>			

When asked, “Do you feel your township/jurisdiction is primarily a farming community?”

**24% responded-Yes                      76% responded-No**

When asked, “Do you feel that development pressures are adversely affecting agriculture in your township or jurisdiction?”

**34% responded-Yes**

**66% responded-No**

**Comments:** 1) Business development is being done on non-farm lands. 2) Farmland is typically annexed into the city for residential development. 3) Not yet, because EPA has refused to allow any new businesses to become established in Kinsman due to heavy sewage pollution, currently, in our streams. We are attempting to get grants for a sewage/water treatment system. 4) At least not severely. We’re (Kinsman) far enough away from cities (Warren-Youngstown) that new homes are few. Since we have no sewers development is stymied. 5) Not yet but the time is getting near. 6) Industrial, commercial & residential growth have overtaken the farming community of the village in the past 20 or 50 years to a point that farming is at a point less than 50% of the total makeup of Lordstown. 7) Business development is being done on non-farmed land. 8) Very few homes being built, when they are, they’re on small parcels, usually transferred to family members. 9) Air pollution & soil erosion. 10) Over the past 10 years the city has taken farmland for housing development. 11) Past several years have witnessed increased requests for zoning changes from agriculture to residential and commercial/business. 12) Southington was a farming community, now only a few farms remain. 13) Development of vacant land has no control. 14) The people moving from town want the goods & services they had in town. This will bankrupt the townships. 15) Not development, economic pressures.

When asked, “Do you feel that it is important to protect/preserve farmland in your community?”

**62% responded-Yes**

**38% responded-No**

When asked, “Do you feel that preserving farmland is a major concern in your community?”

**24% responded-Yes**

**76% responded-No**

When asked, “In your opinion, how high of a priority is it to preserve farmland in your community?”

- 10% **Highest priority, there is an immediate need to preserve farmland.**
- 40% **Moderate priority, farmland preservation is a foreseeable future concern.**
- 22% **Low priority**
- 28% **Not a priority-I don’t see this as an important issue in my township/ jurisdiction.**

**Comments:** 1) The farmers that want to continue farming, do so. Those that want to sell out, also do so. 2) Farming is actively pursued by a very small segment of the township population. 3) Only a few own most of the farmland & they keep it in the family, it’s protected that way. 4) All the farmland in our township is family-owned land; they do with it as they wish. The township does not and is not trying to encourage

or discourage farming. 5) We're a suburban center; outlying areas should maintain farm status because we need that; let's cluster shopping areas here and save the already beautiful farmland from suburban sprawl.

When asked, "Are you interested in finding ways to protect the remaining farmland in your township/jurisdiction (such as Agricultural Zoning/Districts, Purchase of Development Rights (PDR'S), Agricultural Easements)?"

**52% responded-Yes            48% responded-No**

When asked to, "Please check any of the following programs that you would support additional public funds for (such as sales tax, sin tax, etc.)."

*(Note: These percentages will not add up to 100%, due to multiple answers given.)*

44% Farmland Preservation Programs

30 % Urban Revitalization Programs

44% Environmental Protection Programs

30% I would not support additional public funding for any programs.

Other comments: 1) County Health Dept. support to townships. 2) Kinsman sewer. 3) Any that work.

When asked, "Were you aware that *Agriculture is Ohio's #1 Industry contributing \$67.7 billion* to our state's economy every year?"

**52% responded-Yes    48% responded-No**

ADDITIONAL COMMENTS: 1) We need to focus public funds on Environmental Protection to identify problems, but equally important to put public funds out to assist in correcting the identified problems (i.e. sewer & septic problems: water extensions for wells). 2) Annexation of township properties puts pressure on townships for business and industrial development to offset township losses. Agriculture (farming) does not make up for the losses of annexation. 3) Gustavus is one of the few predominantly rural townships left and we want to keep it that way as long as possible. 4) Our area is rural enough that there's no problem with unwanted development. Most families like it that way, that's why we live here. 5) My family farms in Bazetta, and it seems that each year, a few acres are converted to home building. The gradual decline will soon lead to no farmland acreage in our township. 6) Farming, per se, is not a noticeable major business in Weathersfield Township. However, I do feel that it is imperative we prudently manage and protect the remaining agricultural land. Several housing developments have taken over considerable acreage. Non-productive land is not contributory to community financial stability. 7) Too late for Howland. 8) Business incentives to make better use of inner city locations with infrastructure in place instead of destroying more farmland and forest/green areas. We must wake up before there is nothing left to save.

# **THE ECONOMICS OF FARMING**

## **Profitability**

Soon after the initial formulation of the Farmland Preservation Task Force, it became abundantly clear that the primary problem involved with the preservation of farmland dealt with economics. Much like any other “small” or “family –owned” business, profitability is the equivalent to success. If a farmer (i.e. business owner) is making a profit, the farm (business) will most likely be able to sustain itself. If the farm (business) is unprofitable it will close or another type of business will take its place.

What we have seen, in a purely economic sense, in Trumbull County is the closing of many less profitable, usually smaller farms, and that the farmland is being used for more profitable short-term ventures. This scenario is not unique to Trumbull County, but is repeated throughout the United States.

There are two economic/business factors that are unique from an economic standpoint with the agri-business. These two factors are:

- 1) An increase in product demand.
- 2) A greater efficiency in business operation.

Usually, when a business or industry becomes more efficient and the demand for its product increases, profit is increased. However, due to a variety of other factors, virtually all of which are beyond the control of the individual farmer; farming has not profited from an increased demand or efficiency of operation.

It is far beyond the scope of this task force and report to do an in-depth analysis of the economics of farming. However, some general observations and considerations for further investigation are included in this section in an effort to see to what degree county programs can actually effect local farming profitability.

Although the cost to produce a particular crop will vary to some degree from farm to farm, information obtained through the Ohio State University Extension Office gives us some general figures (average costs) for the farming of particular crops and livestock/dairy in Ohio. For purposes of illustrations, the 1999 Corn Production Budget using both conventional and no-tillage practices; and the 1999 Dairy Cow Replacement Budget-Large Breed are used below:

## **Budget Analysis Regarding Farmland Preservation**

A cursory analysis of the two budgets provided above gives some indication of the economic reality faced by agri-business on an individual farm/products basis. Even with the assumptions that certain fixed costs i.e. labor charge, management charge and the depreciation/machinery and equipment charge are actually “payment” or partial write-offs to the individual farmer, an overall loss is still foreseen in these production budgets. Only when land charge is deleted from fixed costs is a profit shown.

What this would seem to indicate is that unless the individual farmer is mortgage free, rent free and is providing the majority of labor and management, the individual farmer would actually be operating at a loss. Therefore, only established farms, which are debt free (paid off) would be able to show a profit. Certain land charges would still apply (taxes, insurance) even for those farms that are mortgage free. This same scenario is basically true for most of the budgets contained in the 1999 Ohio Crop Enterprise Budgets and the Ohio Livestock Enterprise Budgets. There are exceptions; however, in the 1999 Ohio Specialty Crop Enterprise Budgets where Popcorn, Commercial Pumpkins, Strawberry, Sugar Beet and Tomato Production Budgets do show a profit. Alfalfa, Hay and Tobacco Production Budgets also show a profit.

In terms of farmland preservation with the exceptions listed above, it would appear economically unfeasible for new farmers to enter the agricultural market. Anyone who would have to incur debt to purchase land even at the current market rate, would find it very difficult to sustain the capital to pay the debt. Therefore, economic incentives to enter farming are not currently present for most Ohio farm products at the first level of production. Those who would consider entering farming should look into specialty crops as a means to finance debt.

County programs aimed at farmland preservation should also concentrate on a reduction of present and future land charge as the one line item which can effect farm profitability at a local level. As discussed at length in other sections of this plan, tools that directly affect land charge include: CAUV's, TDR's, PDR's. In addition, counties and townships must be mindful of the effects on land value when water and sewer lines are extended and zoning changes are granted, which encroach on lands currently used as farms. Infrastructure = Increased land costs.

## **Economies of Scale**

There is a strong indication both in terms of these budgets and general consensus among farm economists that the size of the farm does matter in terms of profitability. Farming does involve Economies of Scale with larger farms tending to be more profitable. Grain farms of 1,000 to 1,500 acres with approximately \$2 million in total assets seem to fair better than smaller farms. In the dairy industry, 300 to 500 cows seem to be the minimum number needed for sustained profitability.

A variety of factors combine to influence these size profitability numbers including the following: Equipment costs vs. Extent of use, Buying in Bulk, Labor/management costs, availability and cost of working capital and marketing. Smaller farms that join co-ops can share in some of the benefits of larger farms, but not all.

However, even for larger farms, the cost of land is still a primary factor in overall profitability. Therefore, land cost as a factor in the decision to expand is paramount.

## **The Means of Production-From Farm to Table**

According to Economic Experts and independent economic reports, at no level of the food production process is there any excess profit being made. The commodities market has worked to keep pricing very reasonable for the American Consumer. As mentioned previously, the ODA facts show that the average American consumes 24 gallons of milk, 123 pounds of red meat, 94 pounds of poultry and 235 eggs annually. Yet it costs us about 12% of our income for food-which is *the lowest percentage in the world*. Those individuals and companies in the food production chain, for the most part, have been held to market forces in the total food industry.

The major difference between the average farmer, raw material providers, processors, and the grocery stores is the level of risk involved. Of all in the food production process, the farmer has the least amount of control over profits. Farmers are price takers, not price makers. This combined with elements such as weather conditions, availability of seasonal workers, length of workday, length of workweek, and the perishable nature of the products involved, all make for a “risky business” especially in the short term.

Therefore, the use of Best Management Practices is essential for sustained farm profitability. Other Economic Tools such as direct marketing, buying and processing cooperatives, and crop diversification could all be implemented to reduce risk as much as possible for the individual farmer.

In conclusion, from an economic standpoint, at a local (county/township) level, assistance with farmland preservation is limited in scope. Keeping the existing farmland values at a reasonable level, in order for farming to be a viable option, is the most important contribution for farmland preservation. As stated earlier, this would include the

continuation of existing county programs, such as the CAUV program, the limiting of water and sewer extensions into areas designated as farmland preservation areas as established by the countywide comprehensive plan and the establishment on a township level of agricultural zoning districts and if monies are available, the prudent use of PDR's in fringe areas where growth is likely to occur and prime farmland is in jeopardy.

## **CONCLUSIONS**

*(Taken from each section)*

A Countywide Comprehensive Plan can be used as a tool to encourage smart growth while preserving farmland in Trumbull County.

The use of Best Management Practices is essential for protection of soils as well as sustained farm profitability. Other economic tools such as Direct Marketing, buying and processing cooperatives, and crop diversification could all be implemented to reduce risk as much as possible for the individual farmer.

From an economic standpoint, at a local (county/township) level, assistance with farmland preservation is limited in scope. Keeping the existing farmland values at a reasonable level, in order for farming to be a viable option, is the most important contribution for farmland preservation. As stated earlier, this would include the continuation of existing county programs, such as the CAUV program, the limiting of water and sewer extensions into areas designated as farmland preservation areas as established by the countywide comprehensive plan and the establishment on a township level of agricultural zoning districts and if monies are available, the prudent use of PDR's in fringe areas where growth is likely to occur and prime farmland is in jeopardy.

## **SUMMARY OF RECOMMENDATIONS**

1. It is recommended to the County Commissioners that the Countywide Comprehensive Plan is updated as soon as Trumbull County's Geographical Information System (GIS) becomes available. The Countywide Plan will update the land use survey involving township trustees.
2. Recommend that the location of land where development is unlikely to occur be addressed in the Countywide Comprehensive Land Use Plan.
3. Recommend that land enrolled in other government plans such as Wetland Reserve, Conservation Easement, and Registered Forest Lands be delineated in the Countywide Comprehensive Land Use Plan.
4. Recommend that floodplains be delineated in the Countywide Comprehensive Land Use Plan.
5. Recommend that riparian corridor protection along waterways be addressed in the Countywide Comprehensive Land Use Plan.
6. Recommend that when possible farmers implement Best Management Practices, as they are essential for protection of prime farmland soils.

7. Encourage farmers throughout the county to place their land in Agricultural Districts. A low percentage of agricultural land within the county enrolled in the CAUV program are also designated as an Agricultural District. This designation contributes an extra level of protection to the land and the daily agricultural-related activities that surround it. This is the only tool available in which the individual farmer initiates the process to protect agriculture in the county. The responsibility falls on the individual to protect the industry. If agriculture is to remain a viable and productive economic activity in our county, all individuals participating within the industry should utilize this tool.
8. Encourage townships to explore the receptiveness of Agricultural Protective Zoning. In townships, which define their character as rural, Agricultural Protective Zoning exist as a tool to ensure that the rural character remains. In the townships of the northern tier, such as Gustavus and Kinsman, where over 65% of the total land area is actually utilized in agricultural production, Agricultural Protective Zoning would be appropriate. By the nature of the zoning process, a majority of the residents of the township proposing the designation would have to approve the zoning change. Due to this fact, only those townships which self-determine the importance of farming in the township could enact Agricultural Protective Zoning. Agricultural Protective Zoning, like Agricultural Districts, is a second method to protect the future presence of agriculture with little to no initial public outlay or costs.
9. Explore a dedicated funding source to establish a Purchase of Development Rights Program (PDR). In 1999 the State of Ohio established the framework for PDR programs at the local level. To initiate a local PDR program for Trumbull County, the determination of a source of local funding is needed. Under the program, the local PDR program is required to offer a local match to the money the state is generating to purchase the development rights. A possible source of funding could be realized by dedicating CAUV recoupment to the PDR program. The design of the program is based upon competition between individual applications across the state which are weighed against criteria established by the Office of Farmland Preservation. Based upon review of the criteria, Newton Township stands as an area most suited for a successful application within Trumbull County.
10. Establish a local land trust or links to an existing land trust. Under the PDR program the state has designed, one of the requirements is that of enforcement. Typically, conservation easements or development rights are held by a land trust. There are no land trusts currently operating in Trumbull County. For a PDR Program to emerge in the county, this must be addressed. This can be remedied by establishing ties to the American Farmland Trust, a national land trust that just recently established an Ohio office. This organization could offer the County guidance upon the best possible course of action to remedy this deficiency.
11. Push for changes in the CAUV Program. It has become clear to the Task Force that

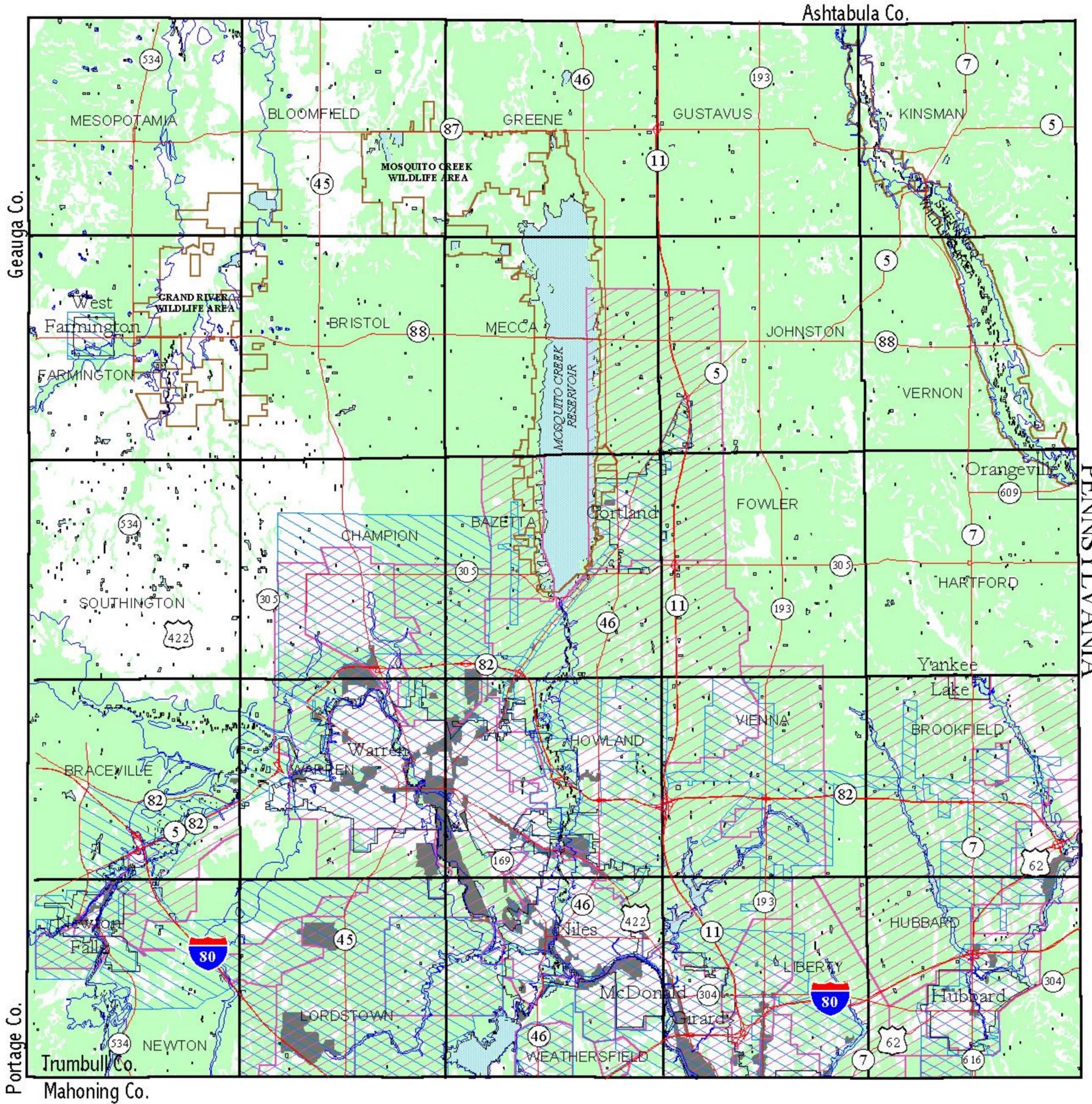
the current ten-acre parcel size, \$2,500 agricultural product limits, and three-year recoupment period are not positively affecting the agricultural industry. Over participation in the program has distorted the appearance of agriculture within the county. (1997 Census of Agriculture list 112,477 acres in farming for the county, while the auditor reports 135,578 acres participating in the CAUV program in 1998.) Higher limits and a longer recoupment period could help restore the original intent of the program. These changes would add to the county's tax revenue by more accurately representing land use reality and help provide a funding source for the proposed local PDR Program.

12. Promote the Ohio Family Farm Loan Guarantee Program. The program was created in 1998 to help farmers obtain the capital needed to acquire land or capital equipment to expand a farm's operations, or start an agricultural enterprise. One of the most frequently cited obstacles to farm operations throughout the county is lack of capital to upgrade operations. The program was designed to overcome this obstacle, but due to its short time of existence, public awareness has been limited. Dissemination of this programs availability runs parallel to the overall purpose of the Task Force and should be promoted.
13. Support Urban Redevelopment throughout the county. Encouragement and support should be granted to programs designed to: refurbish older urban and first ring suburban housing stock, address a declining education system, and reverse perceptions of crime and personal safety. All of these areas are often cited by urbanites as they migrate from the city to further extend the urban-rural fringe. Urban redevelopment addresses these deficiencies, and at the same time grants to the issue of farmland retention a proactive strategy. The threat to farmland from residential development will be greatly diminished if the number of dissatisfied urbanities seeking to move away from the problems of the inner city is reduced. To fix the problem at the edge, attention must be devoted to the center.
14. It is recommended that a permanent Research and Educational Committee be established or appointed. The purpose of this committee could be as follows:
  - a) Review and evaluate all legislative proposals at a local, state and federal level related to the agricultural industry.
  - b) Responsible for the oversight of continued public education upon plan completion by developing educational material related to farmland preservation and related subjects for use in schools, by elected officials, by developers, by realtors, and the general public.
  - c) Update and continuation of Farmland Preservation Plan as GIS and new Census information become available.
  - d) Maintain a list of speakers for various topics including estate planning, tax seminars, best management practices.
  - e) Catalog and distribute possible land use farmland preservation grants.

- f) Aid in the development of a new County Comprehensive Plan when it relates to agricultural matters.
  - g) This group also catalogs, pursues, and distributes possible funding for educational programs in order to reach the public and develop public support and understanding. Funding may come through grants or other means to acquaint the public with the local situation in Trumbull County and the need for farmland preservation.
15. It is also recommended that this committee become connected to an existing agricultural organization for continual support, such as telephone, address, office equipment, and material storage.
16. It is a recommendation that the Research and Educational Committee that is established or appointed conduct a countywide survey to gauge public awareness and raise concern over the issue of farmland preservation.

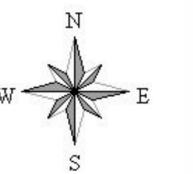
# Prime Farmland Soils with the Ohio Wetland Inventory

## Trumbull County, Ohio

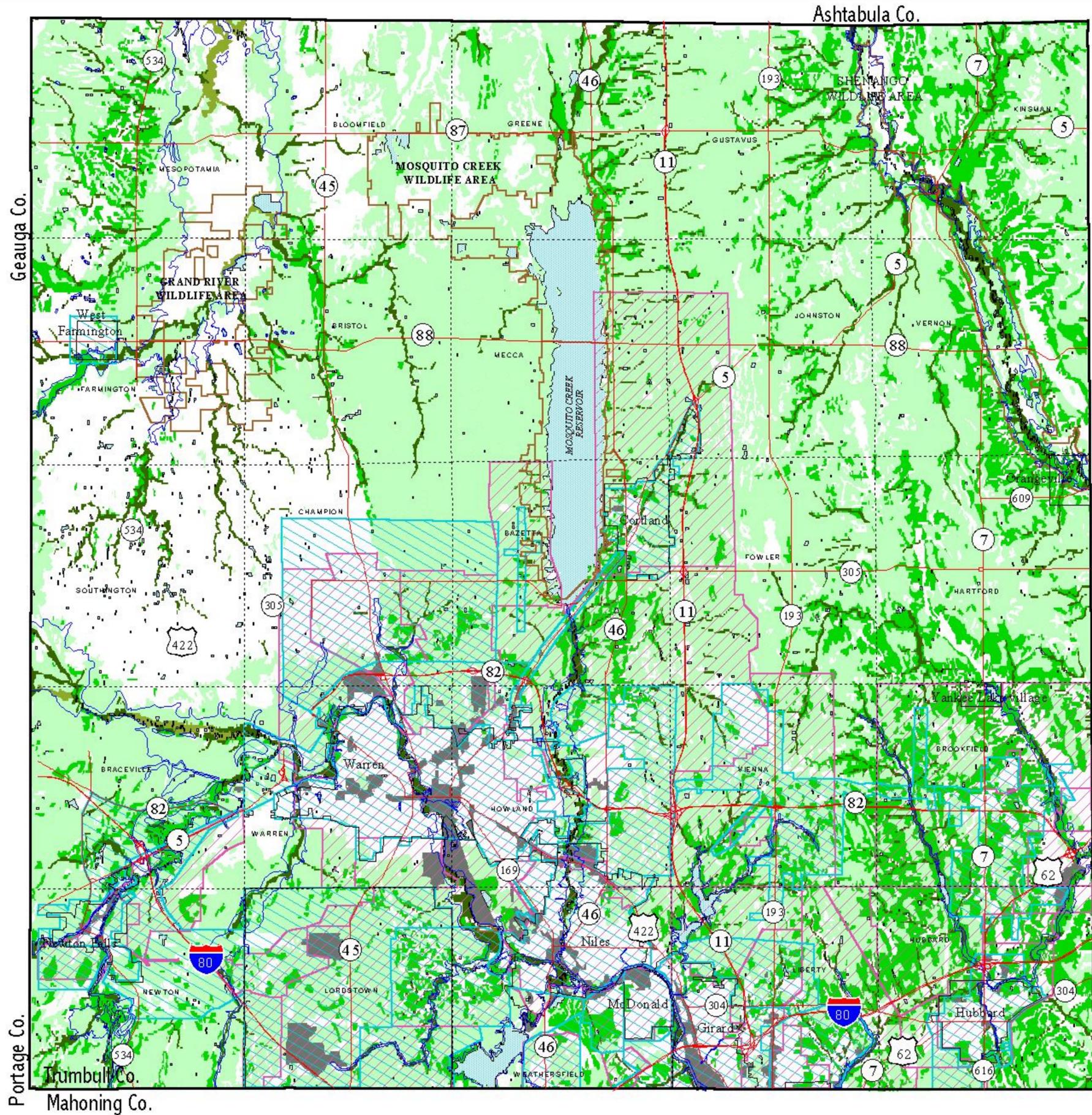


### Key to Features

-  Major Road
-  Township
-  County Boundary
-  Municipality
-  Flood Hazard Area
-  State Land
-  Water Districts
-  Sewer Districts
-  Wetlands
-  Prime Farmland
-  Urban
-  Water



Prepared by: Trumbull County Planning Commission, May 2000  
 Source: United States Geologic Survey, Trumbull County Soil Survey, Trumbull County Sanitary Engineer, Hull & Associates Inc.



# Categories of Prime Farmland

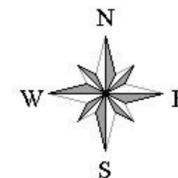
## Trumbull County, Ohio

- Major Road
- Township
- County Boundary
- Municipality
- State Land
- Flood Hazard Area
- Sewer Districts
- Water Districts

### ~Trumbull County Soil Classification~

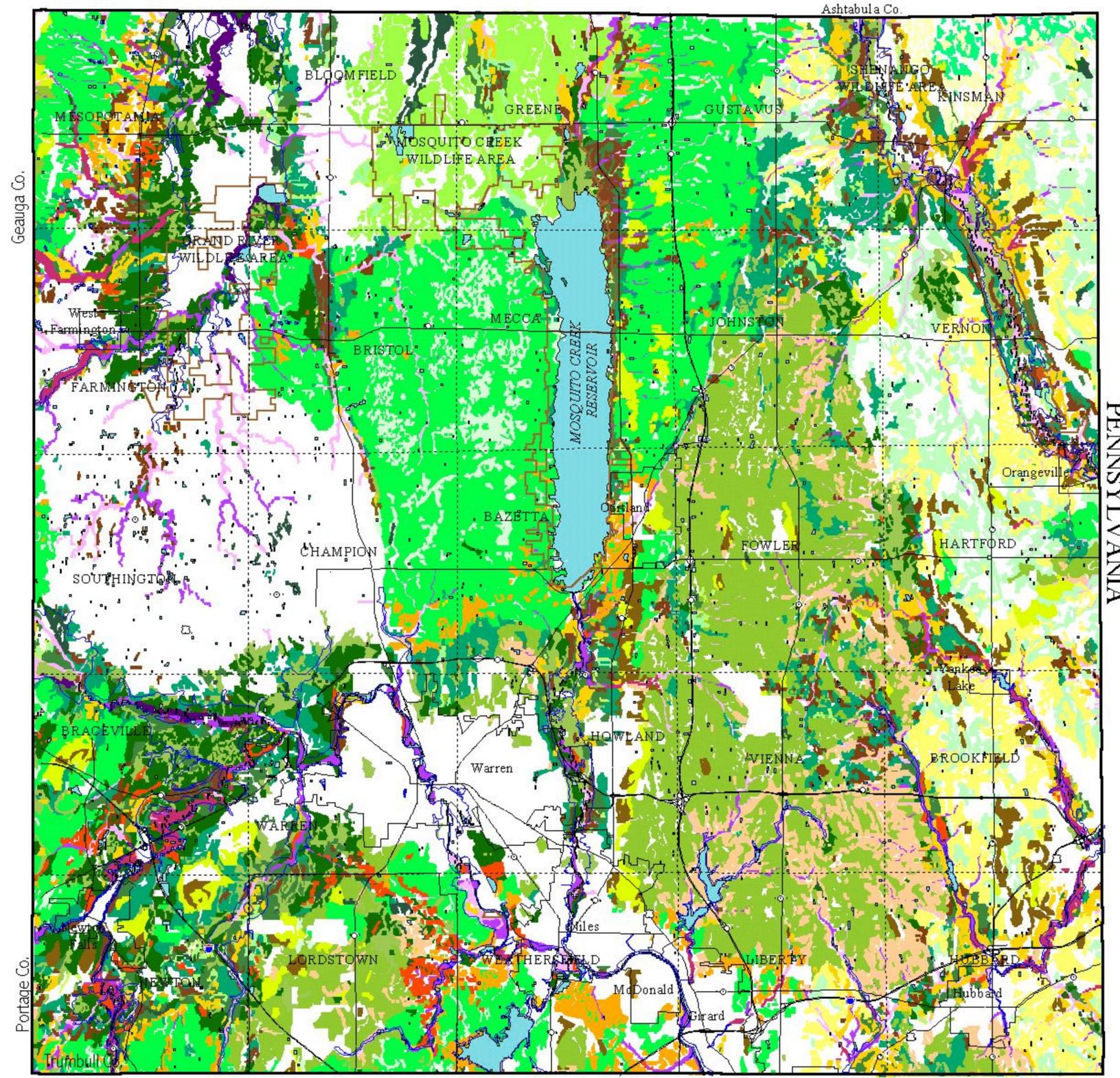
- Category One: Prime Farmland**  
 Cambridge Silt Loam (CaB), Canfield Silt Loam (CfB), Chili Loam (CnA), Chili Loam (CnB), Ellsworth Silt Loam (EhB), Ellsworth Silt Loam (EhB2), Glenford Silt Loam (GfB), Loudonville Silt Loam (LyB), Oshtemo Sandy Loam (OsB), Rawson Silt Loam (RdB), Rittman Silt Loam (RsB), Tioga Loam (Tg)
- Category Two: Prime Farmland where Drained**  
 Condit Silt Loam (Ct), Damascus Loam (Da), Darien Silt Loam (DrA), Darien Silt Loam (DrB), Fitchville Silt Loam (FcA), Fitchville Silt Loam (FcB), Haskins Loam (HaA), Haskins Loam (HaB), Jimtown Loam (JtA), Jimtown Loam (JtB), Lorain Silty Clay Loam (Lo), Lorain Silty Clay Loam (Lp), Mahoning Silt Loam (MhA), Mahoning Silt Loam (MhB), Mitiwanga Silt Loam (MtA), Mitiwanga Silt Loam (MtB), Ravenna Silt Loam (RaA), Ravenna Silt Loam (RaB), Sebring Silt Loam (Sb), Sebring Silt Loam (Sc), Venango Silt Loam (VeA), Venango Silt Loam (VeB), Wadsworth Silt Loam (WbA), Wadsworth Silt Loam (WbB)
- Category Three: Prime Farmland where Drained & Protected from flooding or not frequently flooded during the growing season**  
 Holly Silt Loam (Ho), Orrville Silt Loam (Or)
- Category Four: Prime Farmland where Protected from flooding or not frequently flooded during the growing season**  
 Tioga Loam (Th)
- Urban**
- Water**
- Not Prime Farmland Soils**

0 5 10 Miles



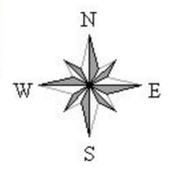
Prepared by: Trumbull County Planning Commission, May 2000  
 Source: United States Geologic Survey, Trumbull County Soil Survey,  
 Trumbull County Sanitary Engineer, Hull & Associates Inc.

# Soil Series for Prime Farmland Only Trumbull County, Ohio



~ Key to Features ~

	Major Road		<b>CATEGORY 2:</b> CONDIT
	County Boundary		DAMASCUS
	Township		DARIEN
	Flood Hazard Area		FITCHVILLE
	State Land		HASKINS
	Municipality		JIMTOWN
	Water		LORAIN
<b>PRIME FARMLAND SOIL SERIES</b>			MAHONING
<b>CATEGORY 1:</b>			MITIWANGA
	CAMBRIDGE		RAVENNA
	CANFIELD		SEBRING
	CHILI		VENANGO
	ELLSWORTH		WADSWORTH
	GLENFORD	<b>CATEGORY 3:</b>	
	LOUDONVILLE		HOLLY
	OSHTEMO		ORRVILLE
	RAWSON	<b>CATEGORY 4:</b>	
	RITTMAN		TIOGA, FREQUENTLY FLOODED
	TIOGA, OCCASIONALLY FLOODED		



Prepared by: Trumbull County Planning Commission, May 2000  
 Source: United States Geologic Survey, Trumbull County Soil Survey,  
 Trumbull County Sanitary Engineer, Hull & Associates Inc.