

Newbury Township



Land Use Plan

Newbury Township
Geauga County, Ohio
Land Use Plan

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CHAPTER 1

INTRODUCTION

Purpose

The purpose of this plan is to provide a foundation for the zoning regulations of Newbury Township. The plan represents a framework within which township officials may guide the future growth of the community in a balanced and orderly fashion.

Information contained in the plan was drawn from a variety of sources. For example, demographic material was obtained from the 1970, 1980, 1990, and 2000 Census reports. Opinions regarding land use and related matters were determined from the results of a township land use and zoning survey. Environmental data were gathered from The Soil Survey of Geauga County, Ohio (Ohio Department of Natural Resources and the United States Department of Agriculture, Soil Conservation Service, 1982). The Balanced Growth Program (BGP) and Town Center components were prepared in conjunction with the Chagrin River Watershed Partners, Inc. (CRWP) and the Kent State University (KSU) Urban Design Center (UDC). The Cobalt Group completed a market assessment for the Town Center as well.

A New Approach To Planning

Land use planning in many communities primarily consists of providing the necessary service infrastructure for the appropriate development of real property. Short- and long-range planning analyses are sometimes directed toward determining the level of services and capital improvements required in order to accommodate present and expected future growth. However, existing environmental restrictions on development activity are often given a low priority or are entirely disregarded.

In urbanized areas, the concept of planning for the most cost-effective delivery of services and capital improvements may be valid. However, in more semi-rural communities, such as Newbury Township, the existing and potential impact of development on the environment is a significant planning issue. More specifically, the protection of environmental quality is particularly warranted where on-site septic systems and water wells are utilized. The possible adverse impacts of development on the environment may be minimized if the ability of the land to support it is carefully considered. In addition, the functions of these natural features in providing stormwater management and flood control services are often not considered as a part of comprehensive planning.

A recognized method for determining the possible impact of development on the environment is through a land capability analysis. A land capability analysis is the detailed assessment of the environment in terms of its ability to support various types and intensities of land use. Certain segments of a planning area may be more compatible with specific types of land uses than others. A basic element of this approach is to guide new growth into the areas where it can be

most reasonably supported. The Newbury Land Use Plan includes a land capability analysis of the township. A thorough examination of such items as soil types, slope, ground water availability, and environmentally sensitive areas has been made. Various types of land uses have been rated with respect to their potential impact.

Plan Content

Chapter 2 represents an overview of background characteristics. Chapter 3 contains a thorough examination of the demographics for Newbury Township. Chapter 4 consists of a land capability analysis of the community. Chapter 5 is the township survey results. Chapter 6 includes recommendations on land use related topics, the Balanced Growth Program (BGP), and the Town Center concept plan.

CHAPTER 2

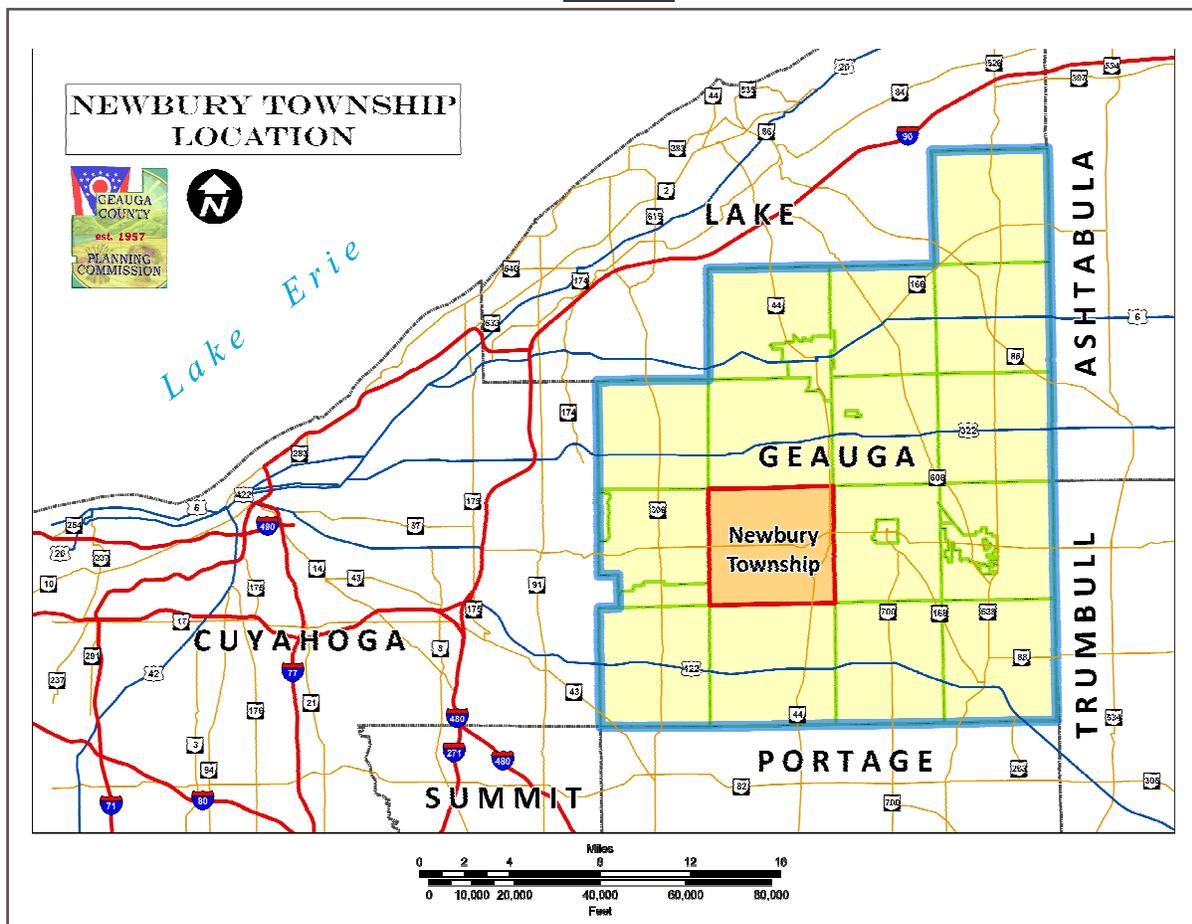
BACKGROUND

Location

Newbury Township is comprised of about 18,272.5 acres covering 28.5 square miles. It is located towards the western tier of townships in Geauga County. Russell Township borders it on the west, Burton Township to the east, Auburn Township to the south, and Munson Township to the north.

Despite its semi-rural setting, Newbury is relatively close to some large urban centers in northeast Ohio. Cleveland is approximately 35 miles to the northwest, Akron is about 40 miles to the southwest, and the Warren-Youngstown area is located roughly 50 miles to the southeast (see Map 2.1).

Map 2.1



Prepared by: Geauga County Planning Commission

History

Newbury Township was originally a part of the area known as the “Connecticut Western Reserve.” The Colony of Connecticut, between the period of 1630 to 1662, claimed title to the land. On September 2, 1795, Connecticut sold 3,000,000 acres off of the easterly end of the Western Reserve to Joseph Howland, Oliver Phelps, Moses Cleveland, and 45 other members of the Connecticut Land Company for \$1,200,000. Joseph Howland and associates joined in a deed of trust on September 5, 1795, to John Caldwell, John Morgan, Jonathan Brace, and their heirs and assigns as trustees conveying to them the 3,000,000 acres with the power to survey, plat, and sell the land. The officers of the land company decided on a method of subdividing their property in April of 1796. The adopted plan was to divide the region east of the Cuyahoga River into townships five miles square. Many of these townships were subsequently surveyed into sections one mile square, while others were divided into tracts and each tract carved up into lots. Newbury Township formally came into existence around the year 1817.

Early industries included a woolen mill and dyeing plant, cheese factories, a furniture factory, blacksmith shops, a wagon maker, tanneries, and distilleries. Many of these early enterprises were family businesses. Products from Newbury found their way east to the markets of New York and Philadelphia. Later on, the construction of canals in Ohio allowed Newbury industries and farmers to send their products to new markets in Cincinnati, St. Louis, and New Orleans. Nevertheless, while travel and shipping were possible, they remained difficult and undependable.

Beginning around 1900, Newbury Township (as well as other parts of Geauga County) was linked with the northeast Ohio area by an electric railway system. For the next two decades, until abandonment of service in 1925, these inter-urban lines provided a valuable connection to neighboring communities, especially to the Cleveland area. The interurban line carried both passengers and freight. It was responsible for opening up Newbury Township to weekend and summer vacationers, many of whom established the dwellings that still surround the major Newbury lakes.

Transportation

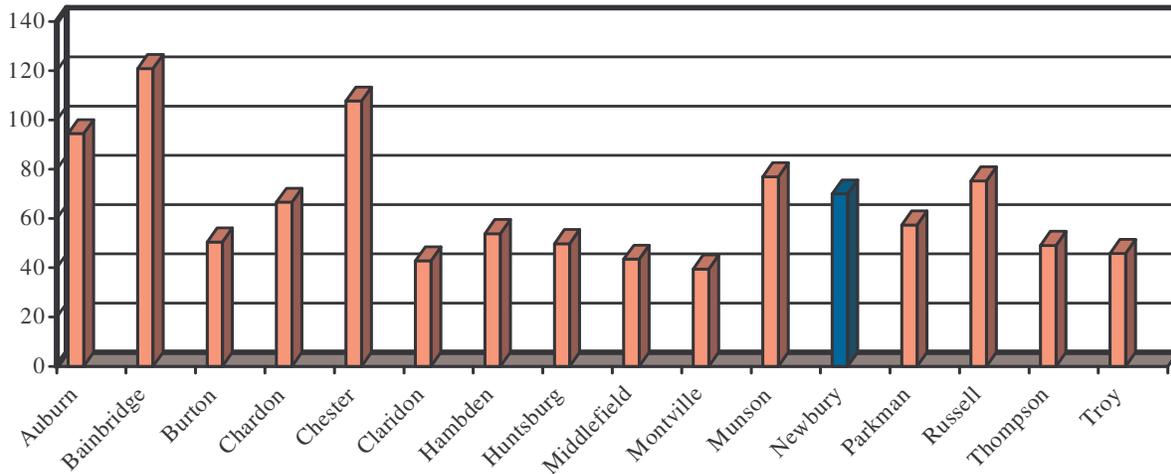
Newbury Township has a fairly extensive public road system, which includes township, county, and state routes. According to the County Engineer’s Office, there are approximately 70 miles of roadway in the township (see Figure 2.1). More specifically, there are about 41 miles of township roads, 21 miles of county roads, and 11 miles of state highways (see Map 2.2).

The only available public transportation system in the township is offered by the Geauga County Transit Program. Service is provided on a demand-responsive basis.

The nearest airport open to the public is the Geauga County Airport located in Middlefield. There are no active railroad lines in the township. Consequently, all freight must be handled by truck.

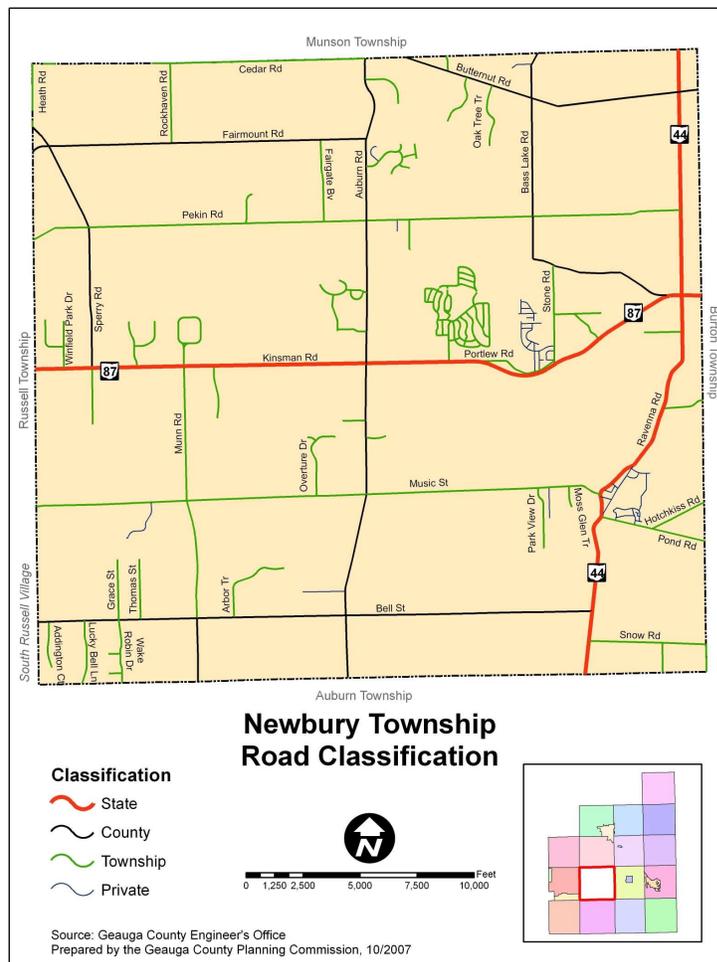
Figure 2.1

**Road Mileage by Township
Geauga County**



Source: Geauga County Engineer's Office (2006)

Map 2.2

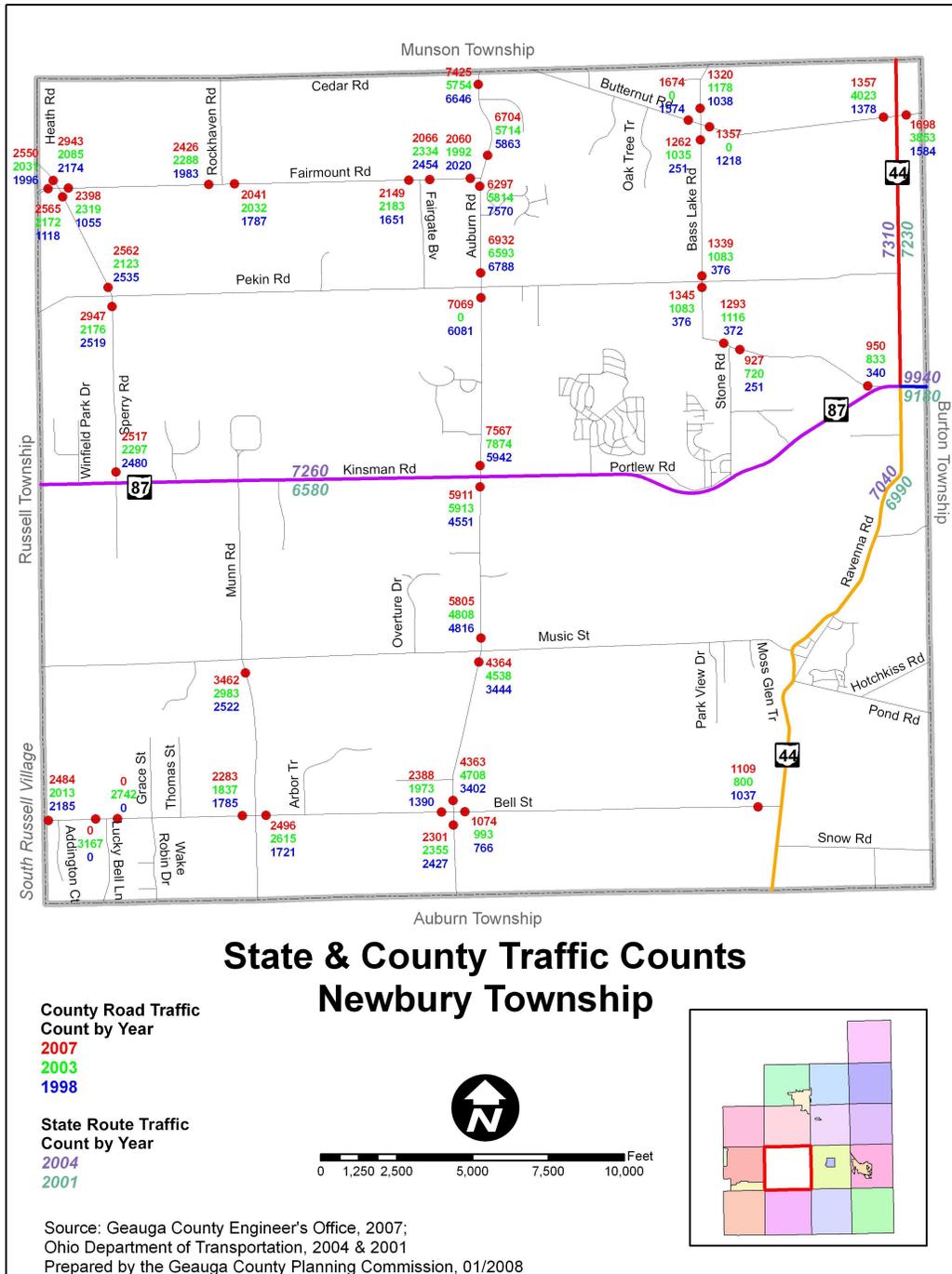


Traffic Volume

In selected years, traffic counts were taken by the County Engineer's Office and the Ohio Department of Transportation at various points throughout the township (see Map 2.3). The figures shown on the map represent the number of vehicles that passed the counting points within a 24 hour period.

A review of the counts, where comparisons can be made, reveals that in most cases overall traffic volume has increased. This trend is expected to continue in the future.

Map 2.3



Accident Data

Table 2.1 details the township accident and fatality data for 1995 through 2000. This information has been obtained from the Ohio Department of Highway Safety. In comparing the accident totals over this time span (1995 – 2000) with the other townships, Newbury is ranked fifth overall (see Table 2.2).

Table 2.1
Number of Accidents: 1995 – 2000
Newbury Township

<u>Year</u>	<u>Total Accidents</u>	<u>Fatal Crashes</u>	<u>Injury Crashes</u>	<u>Pedestrian Involvement In Crashes</u>
1995	185	1	89	0
1996	157	2	70	0
1997	149	0	73	1
1998	135	0	60	1
1999	162	0	64	1
2000	183	2	51	0
Total	971	5	407	3

Source: Ohio Department of Highway Safety

Table 2.2
Number of Accidents by Township: 1995 – 2000
Geauga County

<u>Township</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>6 Year Total</u>	<u>Ranking</u>
Auburn	108	131	120	120	138	145	762	6
Bainbridge	325	335	324	309	342	293	1,928	1
Burton	99	84	98	92	100	113	586	12
Chardon	161	187	177	157	181	210	1,073	4
Chester	317	337	334	268	275	283	1,814	2
Claridon	124	138	118	115	105	110	710	8
Hambden	104	122	118	105	101	89	639	11
Huntsburg	43	34	44	43	65	70	299	16
Middlefield	120	86	114	108	110	127	665	10
Montville	55	43	69	60	54	57	338	15
Munson	224	197	217	199	217	239	1,293	3
Newbury	185	157	149	135	162	183	971	5
Parkman	118	107	115	113	147	124	724	7
Russell	97	120	110	89	130	122	668	9
Thompson	74	63	78	59	80	61	415	14
Troy	92	77	79	65	76	100	489	13
Total	2,246	2,218	2,264	2,037	2,283	2,326	13,374	

Source: Ohio Department of Highway Safety

Emergency Services

Fire protection for the township is provided by the Newbury Volunteer Fire Department. The department's membership as of 2008 numbered 16 fire persons, ten of whom have medical training. There are two rescue squad units. The fire equipment is located in the firehouse on the south side of Kinsman Road just east of Auburn Road. The equipment includes two pumpers, a ladder truck, one heavy rescue unit, a grass fire unit, one boat, and a utility truck.

Police protection is provided by the Ohio State Highway Patrol and the Geauga County Sheriff's Department. The Highway Patrol is primarily concerned with traffic safety on the state routes. The County Sheriff's Department provides additional law enforcement in the township.

Township Services

The township owns eighteen parcels of land plus four cemeteries (see Table 2.3). Structures maintained by the township include the town hall (1,345 sq. feet), the fire station (11,968 sq. feet), the former police station (1,468 sq. feet), and the maintenance garage (4,192 sq. feet).

The maintenance of township roads is handled by the township's road department. The department has six full-time employees who are responsible for snow removal and general road upkeep.

The township has a zoning inspector and other administrative staff available at the town hall during regular office hours to assist the public. The board of trustees meets on a regular basis during the evening to conduct township general business. The township also has a zoning commission, consisting of five members (plus alternates), that works on proposed zoning legislation. The board of zoning appeals, which includes five members (plus alternates), meets as needed to hear zoning appeals.

Table 2.3

Newbury Township Property

<u>Parcel Number</u>	<u>Site/Use</u>	<u>Acres</u>	<u>Structures</u>	<u>Location</u>
23-702100	Administration	0.37	Township Hall	14899 Auburn Road
23-706000	Administration	0.83	Former Police Station	11012 Kinsman Road
23-707700	Headquarters/Fire	5.75	Fire House	11111 Kinsman Road
23-706600	Maintenance	1.69	Garage	11014 Kinsman Road
23-707913	Morton Cemetery	0.52	N/A	North side of Bell Street, west of Auburn Road
23-707907	Morton Cemetery	0.31	N/A	
23-707906	Munn Cemetery	0.16	N/A	10189 Music Street
23-701600	Munn Cemetery	1.00	N/A	
23-702300	Newbury Center Cemetery	2.00	N/A	14911 Auburn Road
23-703400	South Newbury Cemetery	1.00	N/A	West side of Ravenna Road, south of Music Street
23-701700	Park	9.68	N/A	South side of Kinsman Road, west of Auburn Road
23-702000	Park	1.23	N/A	
23-340100	Rental	3.16	House	11008 Kinsman Road
23-706610	Vacant	6.68	N/A	South side of Kinsman Road, east of Auburn Road
23-702200	Vacant	0.11	N/A	East side of Auburn Road, south of Kinsman Road
23-701500	Vacant	5.7	N/A	10189 Music Street
23-707905	Vacant	0.13	N/A	East side of Auburn Road, south of Kinsman Road
23-706630	Vacant	1.06	N/A	East side of Auburn Road, south of Kinsman Road
23-707912	Oberland Park	88.33	N/A	East side of Auburn Road, north of Kinsman Road
23-706620	Vacant	1.89	N/A	East side of Auburn Road, south of Kinsman Road
23-707924	Vacant	3.71	N/A	11035 Kinsman Road
23-706500	Vacant	0.25	N/A	Ravenna Road

Source: Geauga County Auditor's Office, 2008

Education

Newbury Township belongs to the Newbury Local School District (which includes only the area in the township). The elementary (grades K-6) and the high school (grades 7-12) are all located on the east side of Auburn Road just north of State Route 87.

The elementary school includes grades K-6 and the total enrollment for the 2007/2008 school year is 367 students. The staff consists of one principal and 28 teachers. The staff for the high school (grades 7-12) includes one principal and 31 instructors. The total enrollment (grades 7-12) for the 2007/2008 school year was 723 students. Specialized personnel are also available throughout the various grades in the fields of learning disability, special education, speech and hearing therapy, library science, computers, and guidance counseling. In addition, there is one nurse.

St. Helen's is a private parochial school in the community. It is located at the intersection of Hillview and Kinsman Roads. The school offers instruction for grades K-8. Total enrollment for the 2007/2008 school year was 260 students.

Kent State University, Akron University, Youngstown State University, Case Western Reserve University, and Cleveland State University are all within about an hour of Newbury Township. A branch of Kent State University is located in Burton Township on the east side of Claridon-Troy Road just north of the Fairgrounds. Hiram College is located in nearby Portage County and Lake Erie College as well as Lakeland Community College are in Lake County.

Medical Services

Professional services such as doctor's or dentist's offices are located in the township along S.R. 87 as well as a reasonable distance away in Middlefield and Burton Villages and the City of Chardon. UHHS Geauga Hospital, in Claridon Township, handles a large proportion of the serious health care needs of township residents. The hospital has about 226 beds and offers a wide range of services.

Utilities

Newbury residents and businesses receive electrical power from the Cleveland Electric Illuminating Company (First Energy). Telephone service (land line) is primarily offered by Windstream Communications, however, properties east of Ravenna Road are served by AT & T. Dominion East Ohio and Orwell Natural Gas have natural gas lines in the community. Time Warner Cable provides cable television service.

Water for domestic and business use is generally obtained through private on-site wells. A significant portion of the sewage treatment needs are handled by individual on-site septic systems. These systems are privately maintained. Central sewage treatment facilities which are owned and operated by the county exist for Kimberly Estates (.046 mgd capacity), Scranton Woods Phase I (.014 mgd capacity), Newbury School (.028 mgd capacity), and a small area of Snow Road which is serviced by the Burton Lakes treatment plant (.05 mgd capacity). Punderson State Park operates its own sewage treatment facility and other private facilities exist for the Teague Plaza, Newbury Industrial Park, and Kinetico.

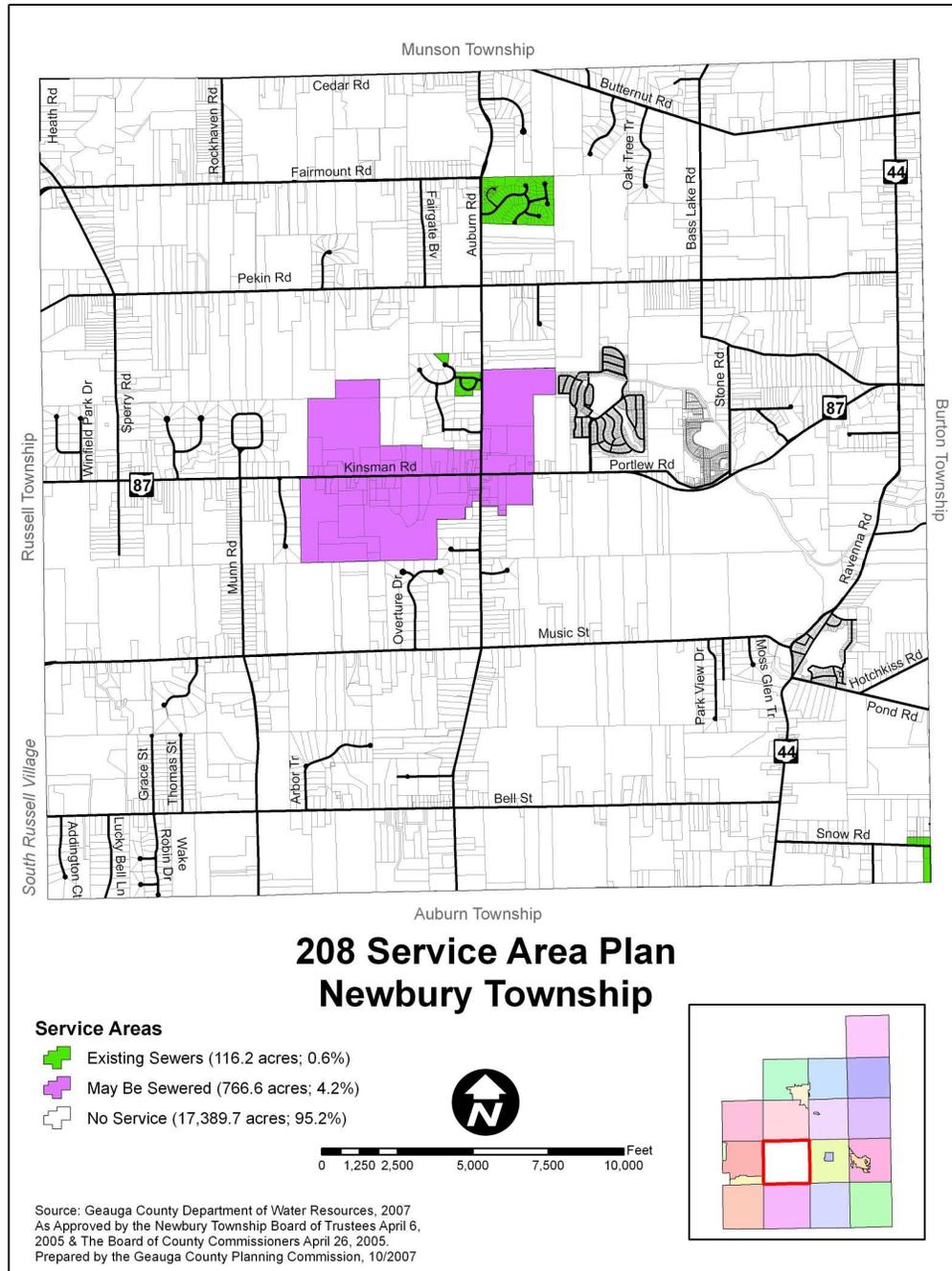
The Northeast Ohio Areawide Coordinating Agency (NOACA) was charged under Section 208 of the Federal Clean Water Act to prepare a regional water quality plan in conjunction with local officials known as Clean Water 2000. This plan addresses wastewater treatment issues and nonpoint source pollution management. As part of the Clean Water 2000 plan, a 208 sewer service plan area has been designated in Newbury (see Map 2.4). The plan was prepared by the County Water Resources Department based on input by Newbury Township officials and a subcommittee appointed by the trustees. General criteria used in devising the plan were:

- 1) Include entire recorded parcels whenever possible.
- 2) Consider topography to minimize the need for pump stations.
- 3) Include parcels within existing commercial/business and light industrial zoning categories.
- 4) Provide potential discharge location on small stream which crosses Kinsman Road less than mile west of town center (S.R. 87 and Auburn Road).

- 5) Minimize planning area due to potential permitting constraints from Ohio EPA relating to discharge to small streams.
- 6) Incorporate parcels within the proposed Oberland Park area.
- 7) Consider potential sewer system design.

Public sanitary sewer service is restricted to the areas within the boundaries shown on the map. All areas outside the service plan boundaries must be served by on-site treatment facilities, unless a documented health issue is found.

Map 2.4



Outdoor Recreational Facilities

Table 2.4 and Map 2.5 reflect outdoor public and private recreational facilities in the township.

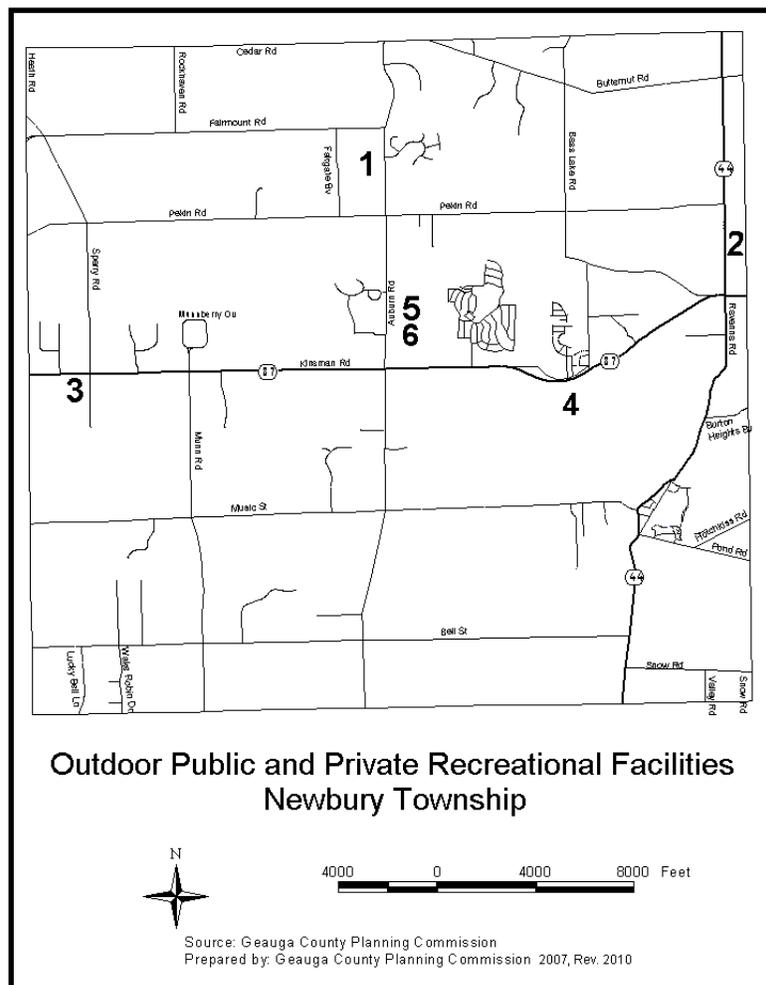
Table 2.4

Outdoor Public and Private Recreational Facilities
Newbury Township

<u>Map Site</u>	<u>Name of Facility</u>	<u>Type</u>
1	Camp Ho Mita Kota	Private
2	Wicked Woods Golf Course	Private
3	Sportshaven Driving Range	Private
4	Punderson State Park	Public
5	Oberland Park	Public
6	Newbury School	Public

Source: Geauga County Planning Commission, 2007, Rev. 2010

Map 2.5



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Existing Land Use

Existing land use maps of the township were prepared on a parcel level basis by the County Planning Commission staff in 2000 and 2006 (see Maps 2.6 and 2.7). Table 2.5 offers a summary of the various categories of existing land use identified, the percentages of land area that each specified use encompasses, and the change in use from 2000 – 2006.

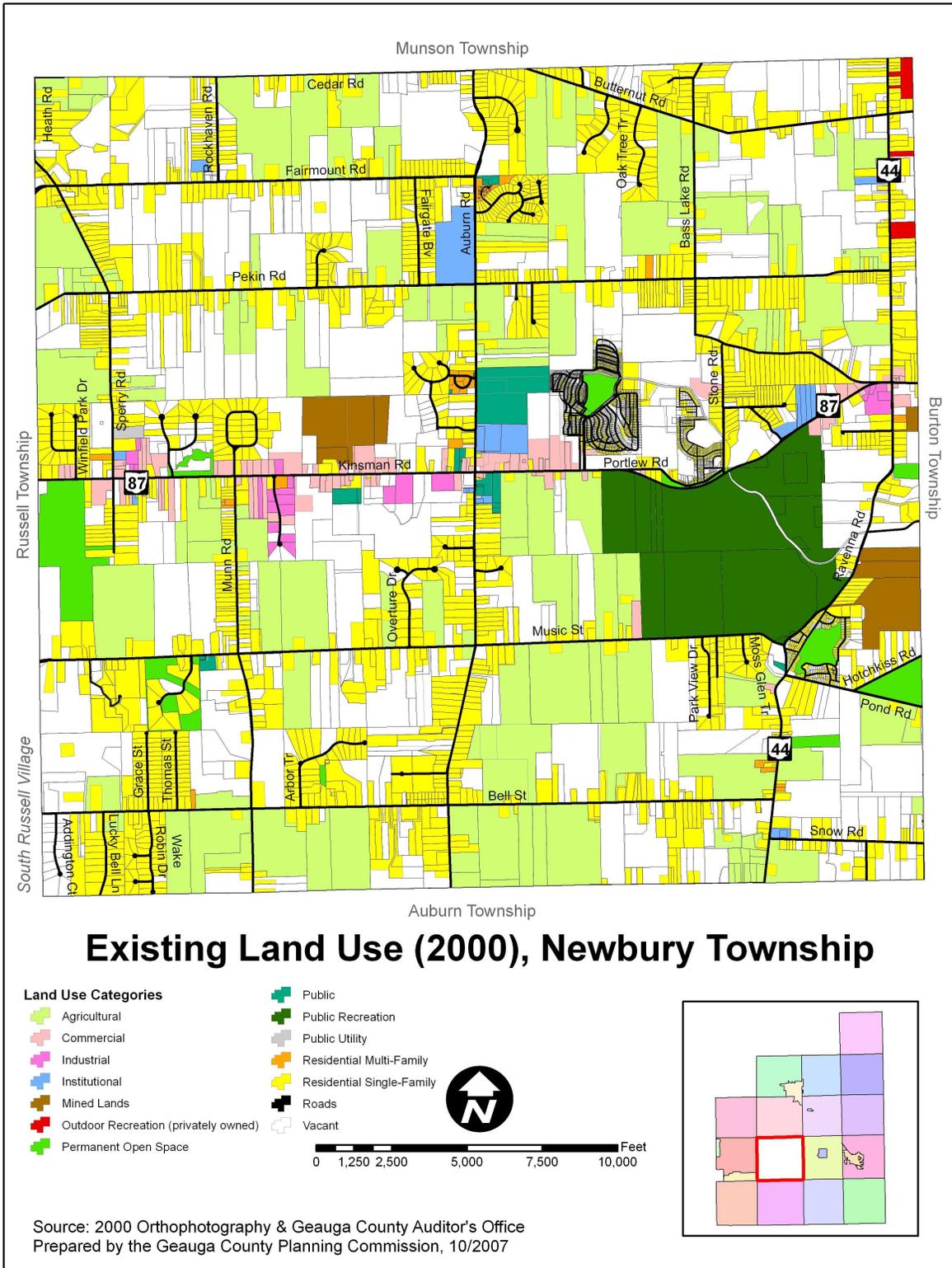
Table 2.5

Existing Land Use: 2000 and 2006
Newbury Township

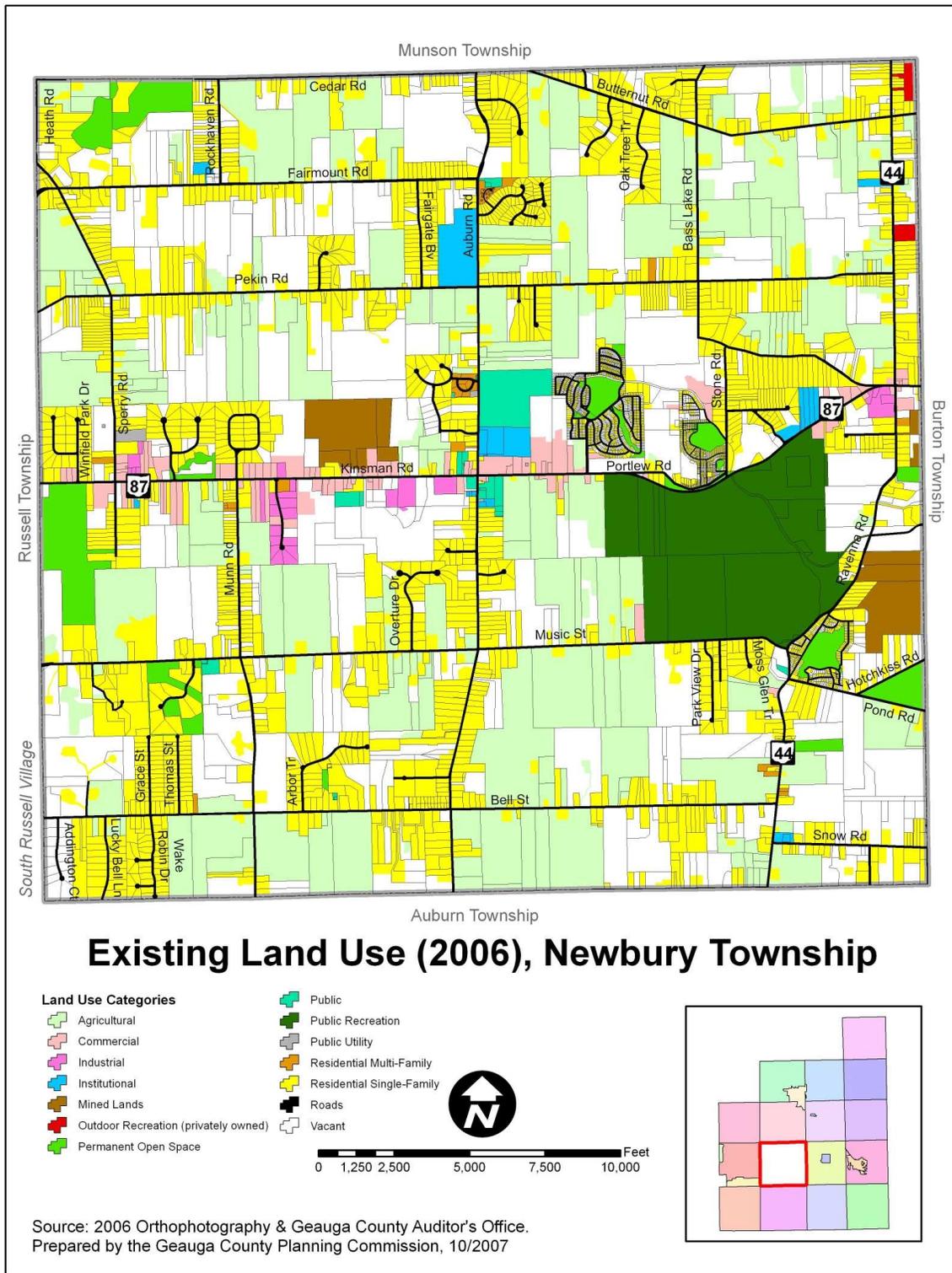
<u>Land Use</u>	<u>2000</u>		<u>2006</u>		<u>Acreage Change 2000-2006</u>	<u>Percent Change 2000- 2006</u>
	<u>Acres</u>	<u>Percent of Township</u>	<u>Acres</u>	<u>Percent of Township</u>		
Agricultural	3,890.70	21.29%	4,586.44	25.10%	695.74	3.81%
Commercial	306.24	1.68%	329.05	1.80%	22.81	0.12%
Industrial	94.14	0.52%	106.40	0.58%	12.26	0.06%
Institutional	159.42	0.87%	157.04	0.86%	-2.38	-0.01%
Mined Lands	258.96	1.42%	278.92	1.53%	19.96	0.11%
Outdoor Recreation	27.94	0.15%	24.64	0.13%	-3.30	0.02%
Permanent Open Space	339.71	1.86%	474.09	2.59%	134.38	0.73%
Public	133.75	0.73%	137.29	0.75%	3.54	0.02%
Public Recreation	871.31	4.77%	880.24	4.82%	8.93	0.05%
Public Utility	9.54	0.05%	11.20	0.06%	1.66	0.01%
Residential Multi-Family	50.01	0.27%	50.05	0.27%	0.04	0.00%
Residential Single-Family	5,112.99	27.98%	5,272.35	28.86%	159.36	0.88%
Roads	547.06	3.00%	545.93	2.99%	-1.13	-0.01%
Vacant	6,470.73	35.41%	5,418.86	29.66%	-1,051.87	-5.75%
Total	18,272.50	100.00%	18,272.50	100.00%		

Source: Geauga County Planning Commission, 2007

Map 2.6



Map 2.7



Existing Newbury Township Zoning

The majority of Newbury Township is zoned residential (87.15%). Industrial zoning represents 2.95% of the township's land area, Commercial is 2.66%, Professional Office 0.39%, Active Park 5.41%, and Passive Park 1.44% (see Table 2.6 and Map 2.8).

Table 2.6

Existing Zoning
Newbury Township

<u>Zoning Classification</u>	<u>Acres</u>	<u>Percent of Township</u>
R-1: Residential	15,924.99	87.15%
P-O: Professional Office	71.66	0.39%
B-1: Commercial/Business	486.94	2.66%
M-1: Industrial	539.28	2.95%
A-P: Active Park	987.25	5.41%
P-P: Passive Park	262.38	1.44%
Total	18,272.50	100.00%

Source: Newbury Township Zoning Map, 2008
Revised 2010

The residential zoning district (R-1) encompasses the largest area of the township with about 15,925 acres. The R-1 district includes a minimum lot requirement of 8,000 square feet in the lake communities of Hickory Dale and Little Punderson, and a 16,000 square foot requirement for the lake communities of Kiwanis and Restful Lake. A minimum of three acres is required for the balance of the township zoned residential.

Professional Office (P-O) zoning accounts for about 72 acres and has a minimum lot size of three acres. It is located at the intersection of Kinsman Road and Sperry Road, on the north side of Kinsman Road adjacent to Munnberry Oval, and a limited area along Auburn Road north of S.R. 87.

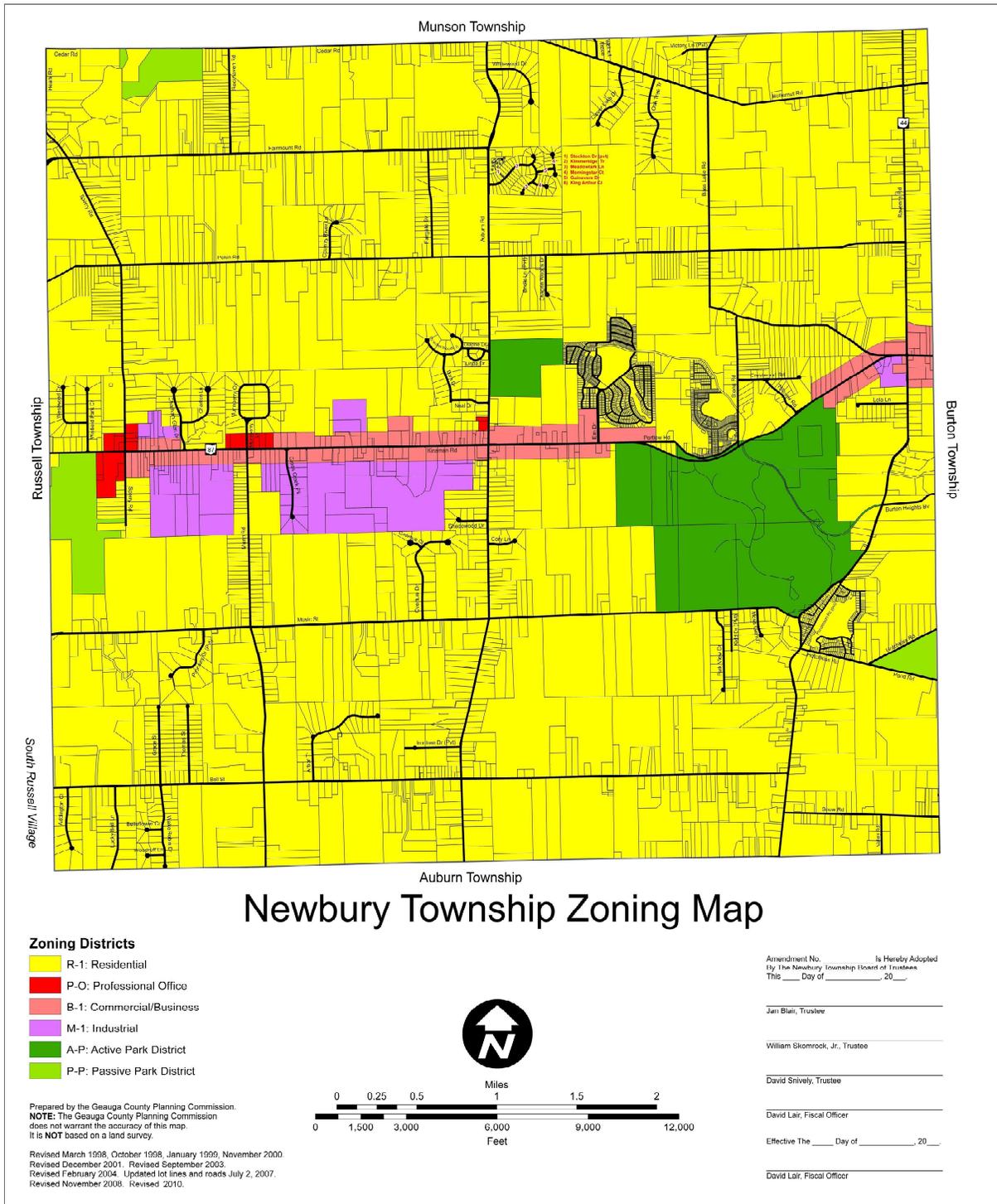
Commercial/Business zoning (B-1) is intermittently established along both sides of Kinsman Road. It contains 487 acres with a minimum lot size of three acres.

Industrial zoning (M-1) includes about 539 acres of land in the township. The district has a minimum lot requirement of five acres. There are five separate areas of industrial zoning in the township.

Two recreational zoning districts are shown on the zoning map. The Active Park (A-P) Zone is roughly 987 acres (about 5% of the township). This district includes Punderson State Park (on the south side of Kinsman Road and west of Ravenna Road), and Oberland Park (east side of Auburn Road and north of Kinsman Road). The Passive Park (P-P) District includes 262 acres (1.44% of the township). The land within this zone is owned by the Geauga Park District.

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Map 2.8



Replacement Page June, 2010

Undeveloped Land Within Zoning Districts

The following table depicts the balance of undeveloped acreage by zoning district. This information was determined using the prevailing zoning map and the 2006 existing land use map.

Table 2.7

Undeveloped Land Within Zoning Districts **Newbury Township**

<u>Zoning District</u>	<u>Undeveloped Acres</u>	<u>Percent of Zoning District</u>
R-1: Residential	5,043.18	31.67%
P-O: Professional Office	17.54	24.48%
B-1: Commercial/Business	78.74	16.17%
M-1: Industrial	289.67	53.71%

Source: Existing Land Use From 2006 Orthophotography, Geauga County Auditor's Office
Newbury Township Zoning Map, 2010

Prepared By: Geauga County Planning Commission

Generalized Existing Township Zoning in Geauga County

In relation to the other townships in Geauga County, Newbury's percentage of land zoned for residential purposes ranks it fourteenth overall (87% or 15,925 acres). Comparing the land area zoned for commercial (2.67% or 487 acres) and industrial (3% or 539 acres) use, Newbury is ranked second and fourth respectively in the county (see Table 2.8 and Map 2.9).

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Table 2.8

Generalized Residential, Commercial, and Industrial Zoning Districts
by Township: 2009
Geauga County

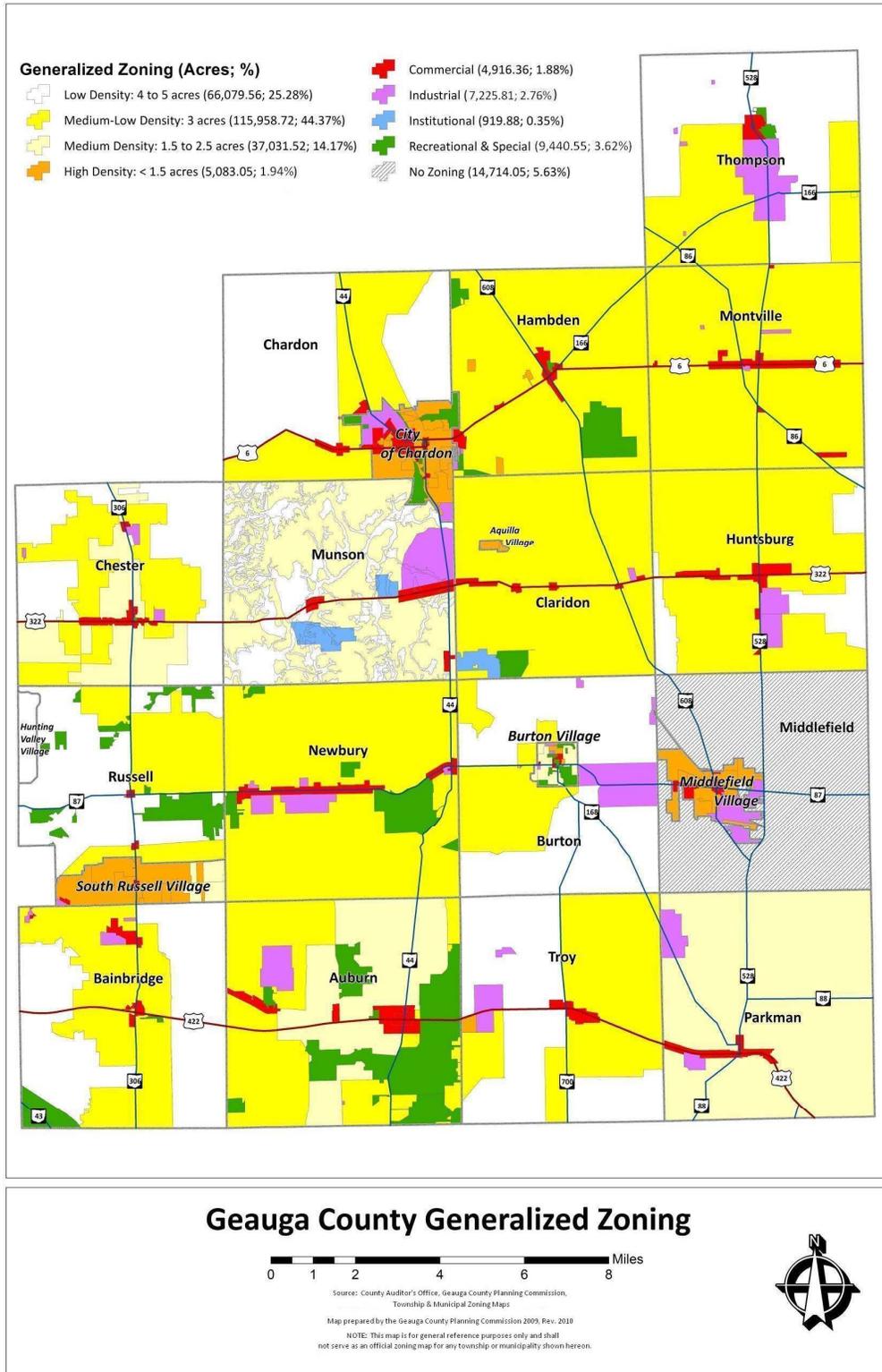
<u>Township</u>	<u>Residential Zoned Acres</u>	<u>Percent of Twp.</u>	<u>Commercial Zoned Acres</u>	<u>Percent of Twp.</u>	<u>Industrial Zoned Acres</u>	<u>Percent of Twp.</u>
Auburn	13,995.54	73.14%	575.53	3.01%	483.62	2.53%
Bainbridge	15,679.88	94.50%	242.92	1.46%	131.76	0.79%
Burton	13,789.90	92.23%	0.00	0.00%	1,162.23*	7.77%*
Chardon	14,461.87	98.95%	152.71	1.04%	0.00	0.00%
Chester	14,669.96	97.29%	267.73	1.78%	132.05	0.88%
Claridon	13,663.99	94.58%	167.11	1.16%	32.36	0.22%
Hambden	12,978.30	90.23%	283.61	1.97%	41.36	0.29%
Huntsburg	14,726.41	94.16%	400.45	2.56%	514.72	3.29%
Montville	15,172.82	96.34%	515.38	3.27%	61.61	0.39%
Munson	14,538.18	88.23%	369.22	2.24%	958.24	5.82%
Newbury	15,924.99	87.15%	486.94	2.66%	539.28	2.95%
Parkman	16,413.96	95.11%	337.20	1.95%	504.76	2.92%
Russell	10,903.63	88.06%	44.90	0.36%	0.00	0.00%
Thompson	15,045.59	91.23%	175.28	1.06%	1,170.70	7.10%
Troy	15,839.24	96.02%	215.44	1.31%	440.85	2.67%

Source: The Geauga County Planning Commission, 2009, Rev. 2010

Note: The above table and accompanying map represent generalized year 2007 data that may not correlate with current data.

*Commercial and Industrial are combined

Map 2.9



Replacement Page June, 2010

Township Tax Base

The township's tax base is divided into three components: real property (land and buildings), tangible personal property (machinery, equipment, and inventory used in business), and public utility property. Since 1990, the total assessed value of taxable property in Newbury has increased by 70%. Table 2.9 provides a comparison with the other townships in the county. Newbury, along with the other townships, has the majority of its tax base in real property. The 2000 tax valuation for Newbury indicates that 87.7% of its tax base is in real property, 8.3% in tangible personal property, and 4% in public utility property. Since 1990, the township's percentage of real property has increased by 89%, tangible personal property has risen by 9.3%, and public utility property has decreased by 0.07% (see Figure 2.2).

The assessed real property value figures for residential, agricultural, commercial, mineral, and industrial land for the years 1990, 1995 and 2000 are outlined in Table 2.10. Since 1990, the average annual increase for residential land in Newbury was 9%. The average annual increase for agricultural land was 4.8%, industrial land 16%, and commercial land 14%. The value for all classes of land in Newbury increased by 88.8% between 1990 and 2000. In a comparison to the other townships, Newbury is ranked sixth (\$131,442,820) with regard to the total assessed value for all classifications (land and buildings) for 2000 (see Map 2.10).

Table 2.9

Assessed Value of Taxable Property by Township: 2000
Geauga County

<u>Communities</u>	<u>Real Property</u>		<u>Personal Property</u>		<u>Public Utility</u>	
	<u>Assessed Value</u>	<u>Percent of Total</u>	<u>Assessed Value</u>	<u>% of Total</u>	<u>Assessed Value</u>	<u>Percent of Total</u>
Auburn	147,151,620	93.7%	6,077,030	3.9%	3,804,470	2.4%
Bainbridge	337,753,770	92.0%	18,550,860	5.0%	10,792,680	3.0%
Burton	52,484,460	84.8%	6,523,220	10.5%	2,930,640	4.7%
Chardon	113,265,490	94.7%	815,530	0.7%	5,490,940	4.6%
Chester	272,180,880	92.9%	6,269,530	2.1%	14,766,720	5.0%
Claridon	50,074,580	91.9%	780,950	1.4%	3,636,550	6.7%
Hambden	66,015,050	89.3%	3,479,640	4.7%	4,482,460	6.0%
Huntsburg	37,046,780	92.5%	846,680	2.1%	2,161,210	5.4%
Middlefield	43,901,060	76.0%	11,046,140	19.1%	2,848,260	4.9%
Montville	31,901,690	92.9%	669,960	2.0%	1,737,770	5.1%
Munson	167,026,820	92.9%	6,379,600	3.5%	6,550,600	3.6%
Newbury	131,442,820	87.7%	12,372,720	8.3%	6,048,030	4.0%
Parkman	40,441,890	93.3%	1,364,700	3.0%	1,602,390	3.7%
Russell	201,954,150	95.9%	1,215,630	0.5%	7,492,690	3.6%
Thompson	30,786,760	83.9%	3,557,150	9.7%	2,364,190	6.4%
Troy	34,808,220	81.0%	6,451,830	15.0%	1,677,350	4.0%

Source: Geauga County Auditor's Office, 2001

Table 2.10

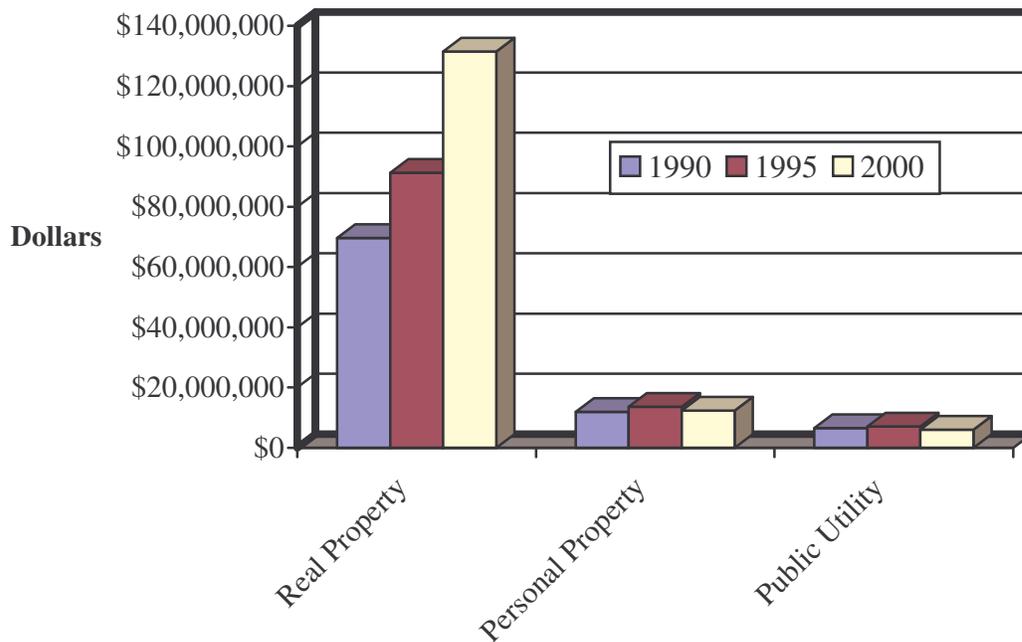
Real Property Values: 1990, 1995, and 2000
Newbury Township

	<u>1990</u>	<u>1995</u>	<u>2000</u>
Residential	46,739,480	62,072,270	91,775,980
Agricultural	13,119,180	7,705,640	22,857,790
Industrial	3,827,940	623,890	7,324,650
Commercial	5,400,380	1,118,100	9,377,610
Mineral	532,280	106,160	106,790
Total	69,619,260	71,626,060	131,442,820

Source: Geauga County Auditor's Office

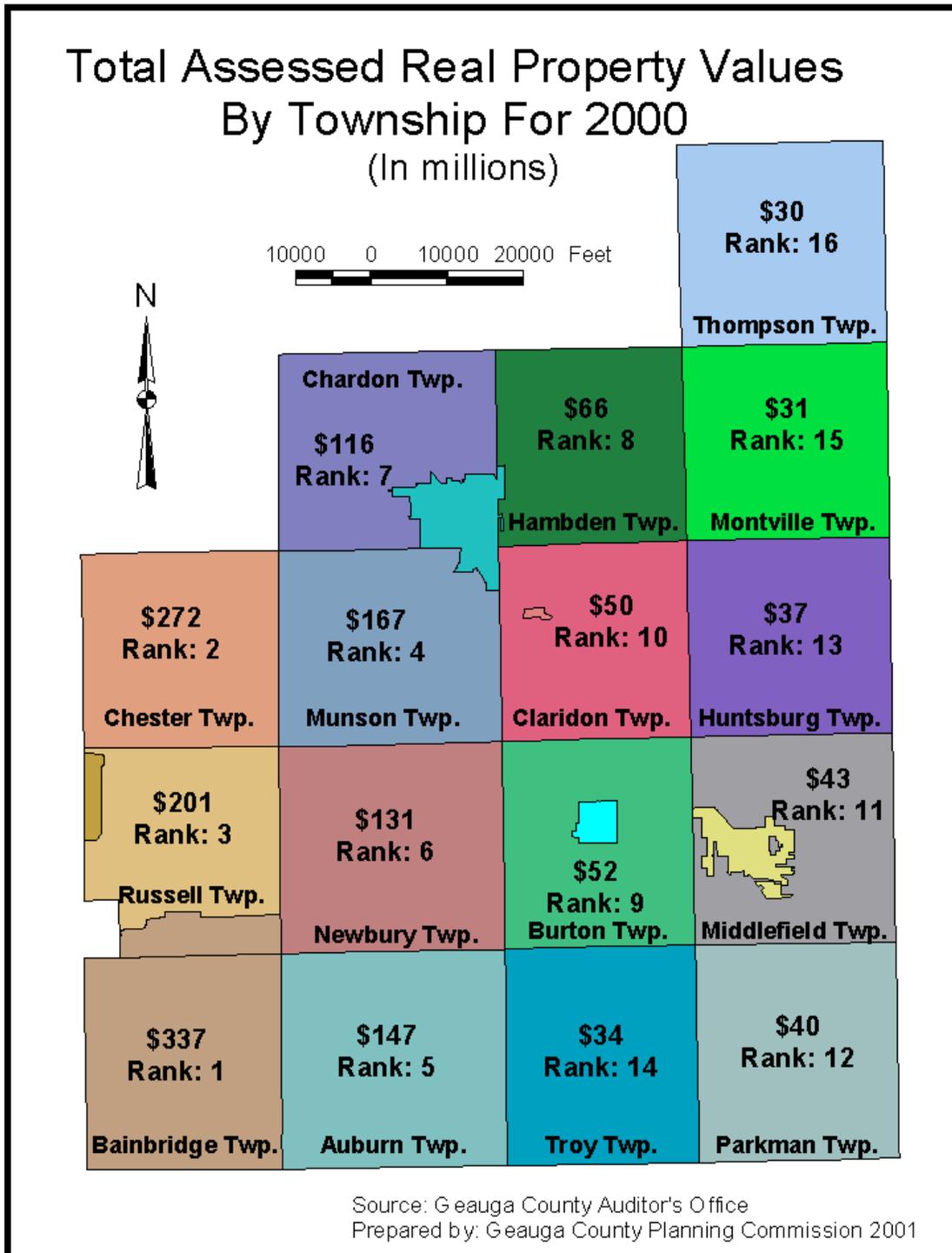
Figure 2.2

Assessed Value of Taxable Property: 1990, 1995, and 2000
Newbury Township



Source: Geauga County Auditor's Office

Map 2.10



Cost of Community Services (COCS)

Previous studies of the cost of community services (COCS) have been able to show the net impact of major land uses (residential, agricultural, commercial, and industrial) on a community's ability to generate adequate income to pay for various public services.

Examples of COCS study results are included in Table 2.11. Newbury Township's study reflected that for every dollar of revenue collected from residential development, \$1.20 was spent on public services. However, for every dollar raised by agriculture only 85 cents was expended on services. The light industrial/commercial ratio of revenue to expenditures in Newbury was very favorable. Only 30 cents was spent on public services for every dollar collected in revenue.

Table 2.11

Comparison of Ratios of Revenue to Expenditures by Land Use
Selected Northeast Ohio Townships

<u>Township</u>	<u>Ratios</u>		
	<u>Residential</u>	<u>Agricultural</u>	<u>Industrial/Commercial</u>
Auburn (Geauga County)	1 : 1.34	1 : .37	1 : .10
Newbury (Geauga County)	1 : 1.20	1 : .86	1 : .30
Madison (Lake County)	1 : 1.40	1 : .38	1 : .25
Shalersville (Portage County)	1 : 1.58	1 : .31	1 : .15 (commercial only)

Sources: Frank J. Costa and Gail Gordon Sommers,
Center for Public Administration and Public Policy Kent State University, 1999
GCPC, 2006

By comparing the net impact of various land uses to the need for community services, local government officials and citizens may be better informed concerning community growth decision-making.

CHAPTER 3

DEMOGRAPHICS

Demographic Profile

Population

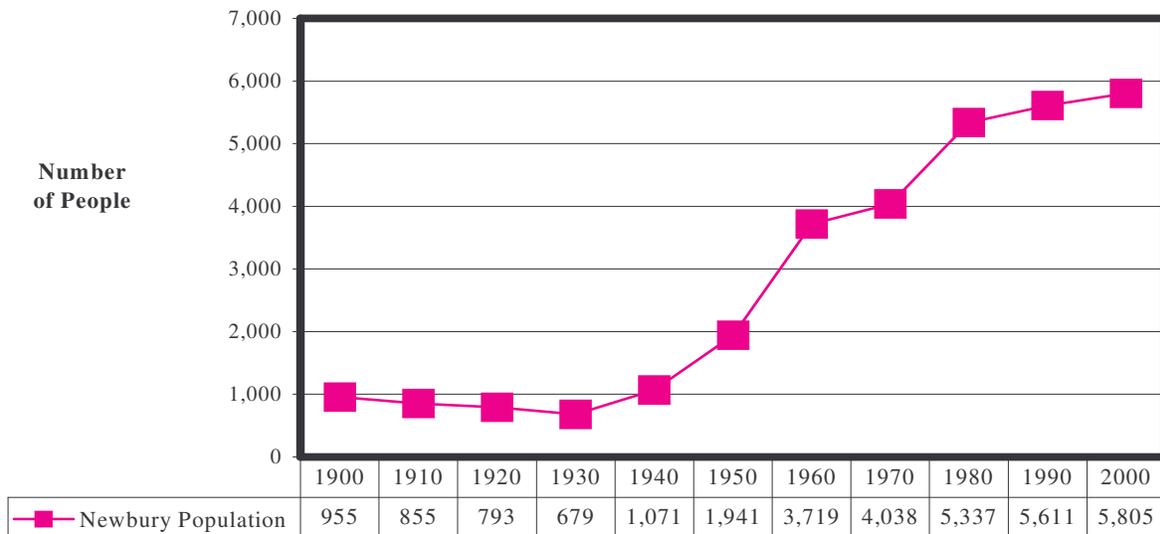
Demographic information can provide essential insights into the composition of a community. As a result, it is a basic element of land use planning and decision-making. The following is an analysis of relevant 1970, 1980, 1990, and 2000 Census data.

Over the years, population growth in Newbury Township was not dramatic until around 1950. As reflected in the following figure, it has increased from 955 persons in 1900 to 5,805 in 2000. The latest available population estimate from the Census Bureau for Newbury was 5,944 as of July 1, 2007. Additional demographic data on a county-wide basis is contained in the Geauga County General Plan (GCPC, 2003) and is available on line at:

www.co.geauga.oh.us/departments/planning_commission.

Figure 3.1

Population Growth: 1900 – 2000
Newbury Township



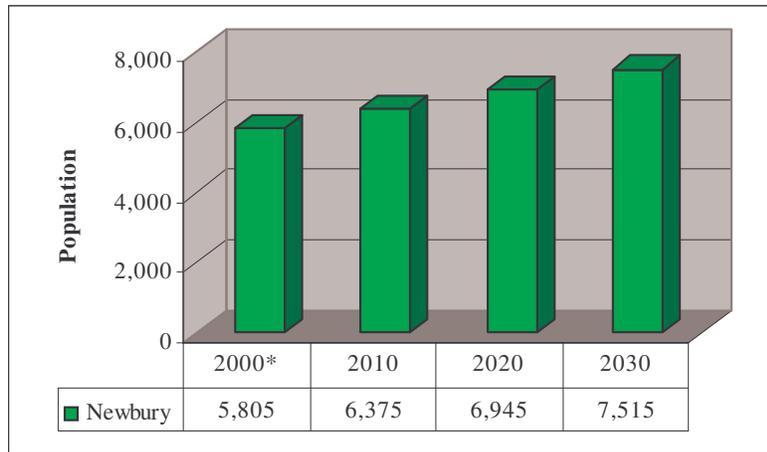
Source: U.S. Census Bureau

Currently available population projections reveal a trend toward an increase in the number of residents in Newbury Township. Figure 3.2 reflects projections to the year 2030 that are based upon the historical trend of the past three decades. Figure 3.3 reveals county population projections.

It should be noted that all population projections, to some degree, are based upon past trends and expected future events. There are certain risks involved with projections for small geographic areas or political subdivisions due to the possibility of the variables analyzed being more susceptible to greater fluctuation. In addition, as the time span for the projections increases from the base year, accuracy often decreases. As a result, although projections are a useful element in the plan, precautions must be taken when assessing their validity.

Figure 3.2

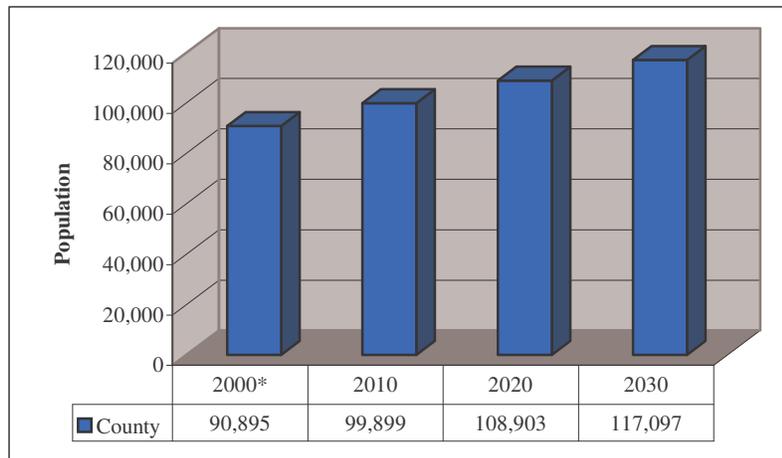
Population Projections: 2000 – 2030
Newbury Township



Source: Geauga County Planning Commission
* U.S. Bureau of the Census (2000)

Figure 3.3

Populations Projections: 2000 – 2030
Geauga County



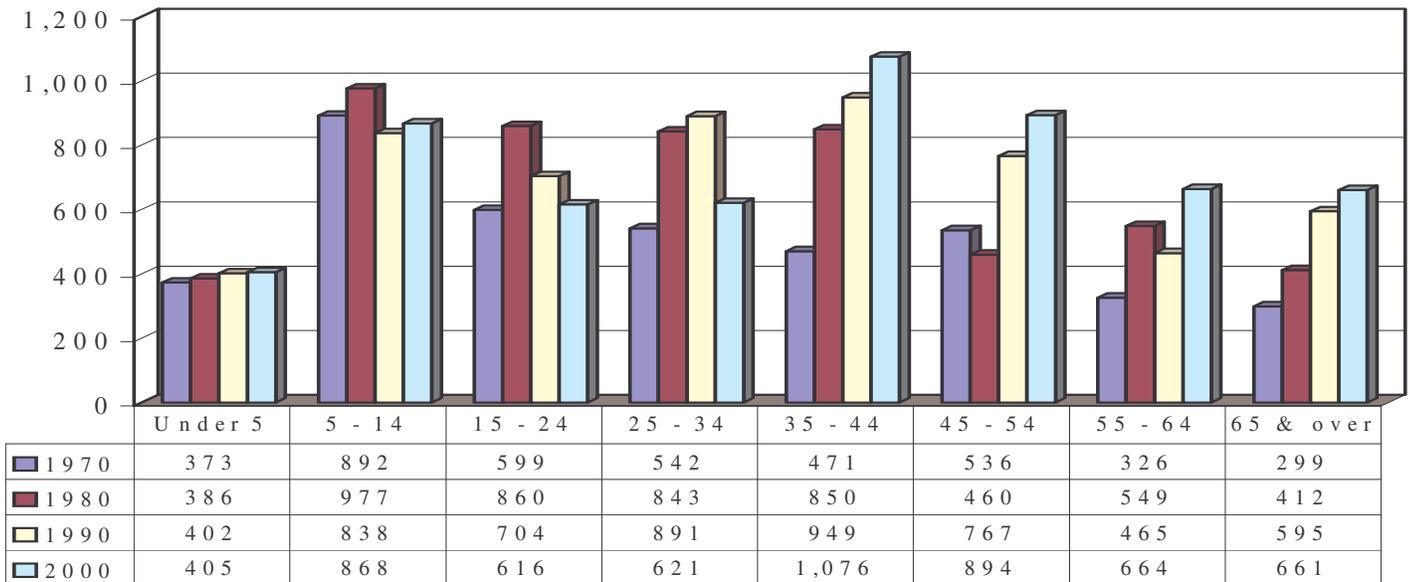
Source: Geauga County Planning Commission
* U.S. Bureau of the Census (2000)

Age Distribution

The following figure indicates that the population for each age category in the township has remained somewhat constant during the last three decades. The 2000 Census figures revealed that the highest percentage (18.54%) was in the 35-44 age range (see Figure 3.5).

Figure 3.4

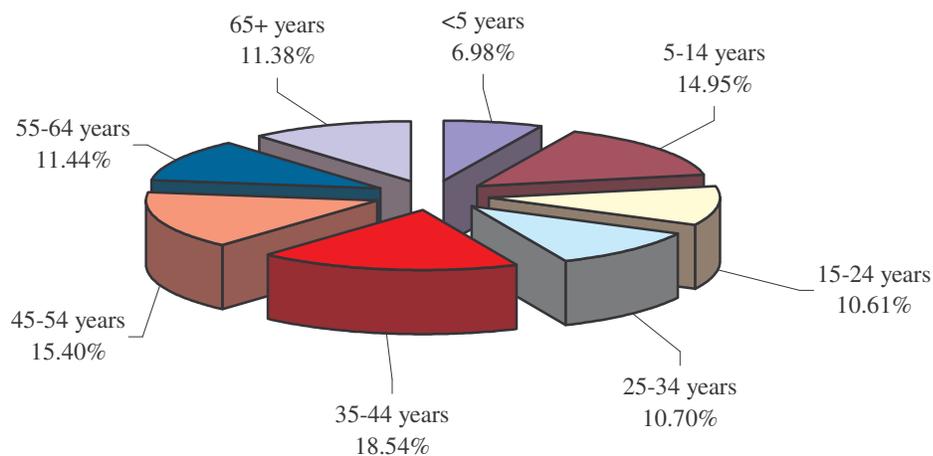
Age Distribution: 1970, 1980, 1990, and 2000
Newbury Township



Source: U.S. Census Bureau

Figure 3.5

Percentage of Age Groups: 2000
Newbury Township



Source: U.S. Census Bureau

Income

The results of the 1980 Census revealed that over 6% of Newbury Township residents had incomes greater than \$50,000. In 1990, the Census data indicated that 33% of the township residents had incomes greater than \$50,000 and by 2000, this percentage increased to 58%. The information pertaining to income is shown in greater detail in Table 3.1. Per the 2000 Census data, the average household income (in 1999) in the township was \$69,400 (see Map 3.1). The per capita income in Newbury was \$25,565 in 1999 (see Map 3.2).

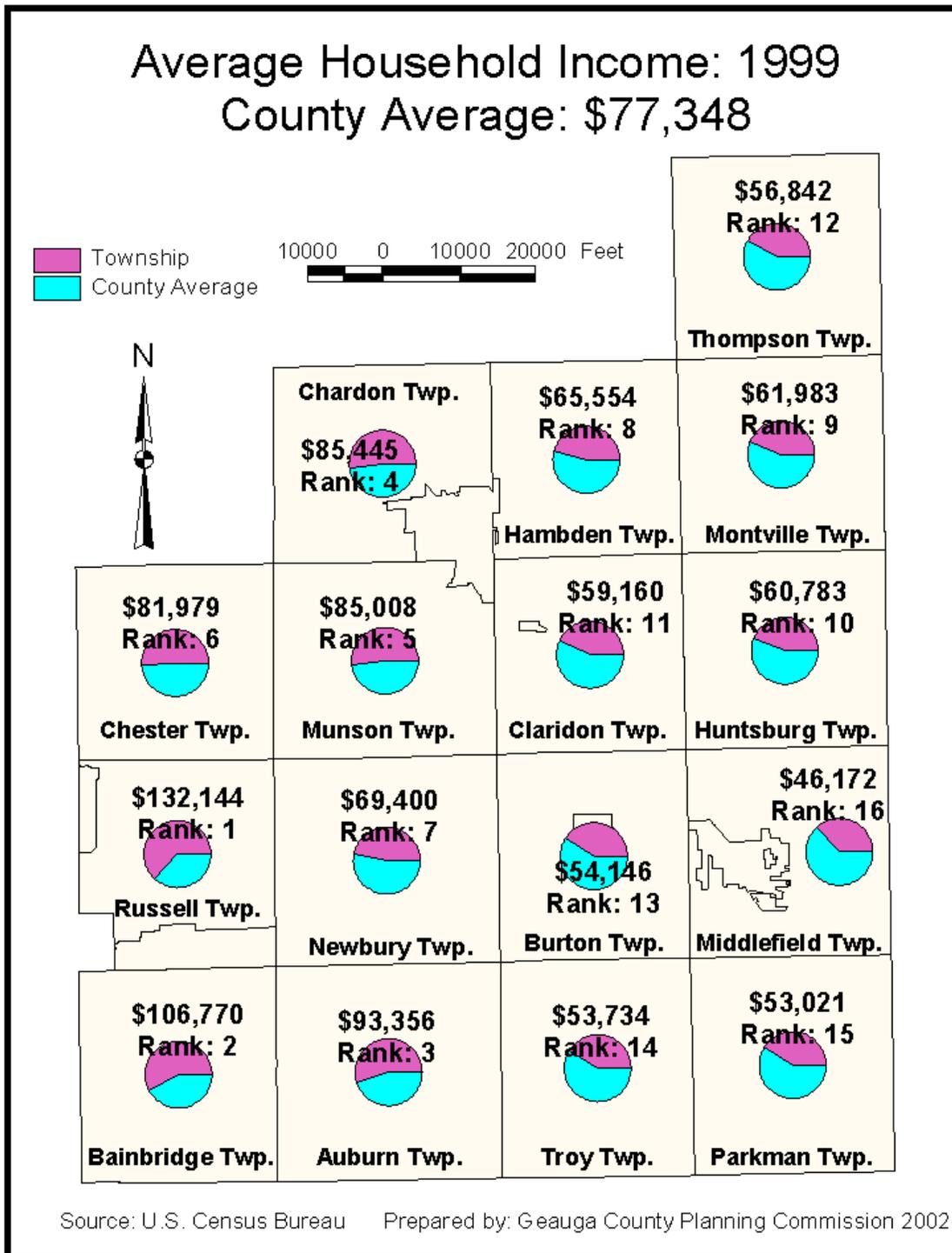
Table 3.1

Income Distribution: 1980, 1990, and 2000
Newbury Township

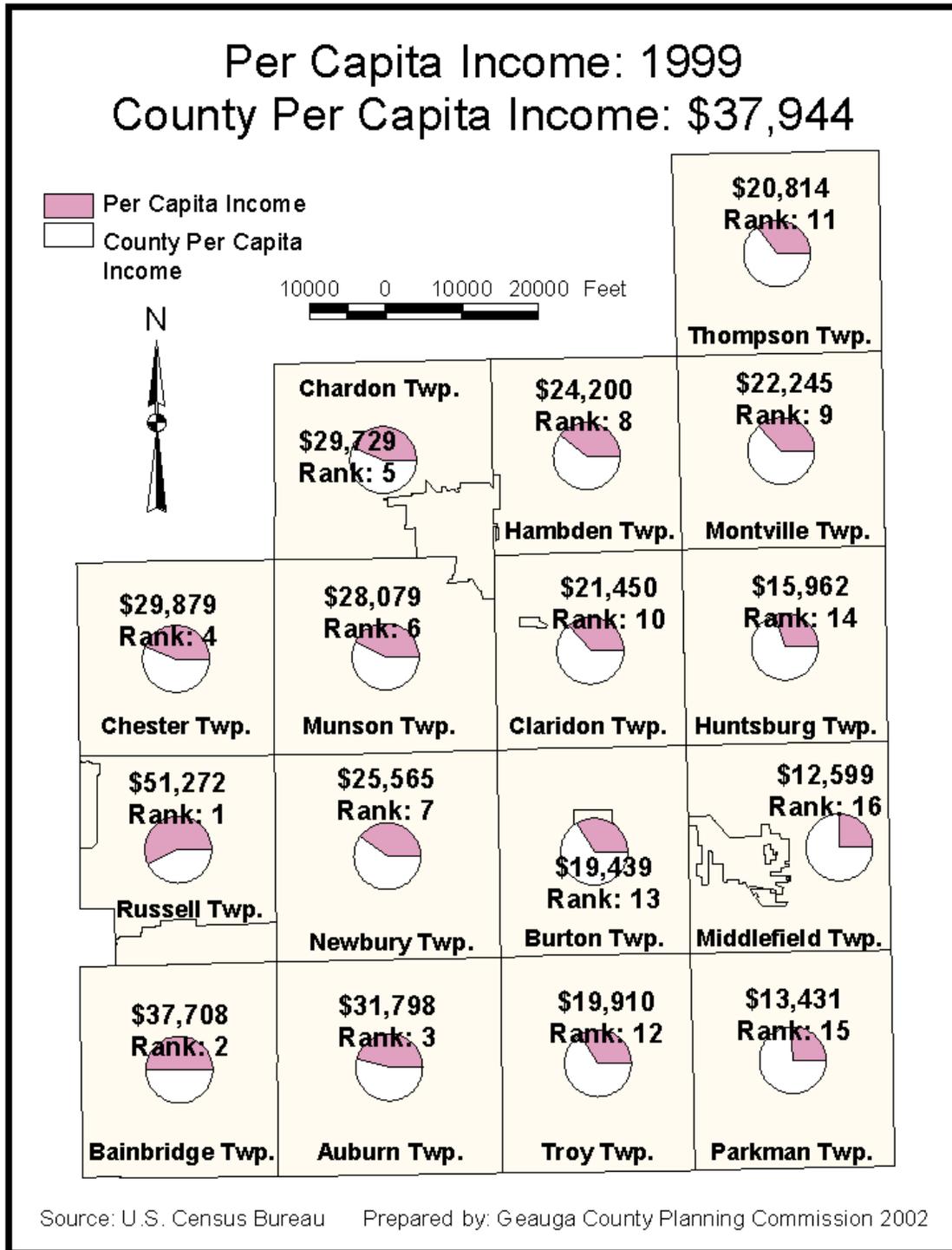
<u>Income</u>	<u>1980</u>		<u>1990</u>		<u>2000</u>	
	<u>Households</u>	<u>Percent</u>	<u>Households</u>	<u>Percent</u>	<u>Households</u>	<u>Percent</u>
Under \$10,000	211	12.8%	127	6.7%	41	1.9%
\$10,000 – \$14,999	153	9.3%	176	9.2%	105	5.0%
\$15,000 – \$24,999	494	29.9%	245	12.8%	133	6.4%
\$25,000 – \$34,999	438	26.5%	335	17.5%	215	10.3%
\$35,000 – \$49,000	246	14.8%	389	20.4%	392	18.7%
Over \$50,000	112	6.7%	693	33.4%	1,327	57.8%

Source: U.S. Census Bureau

Map 3.1



Map 3.2

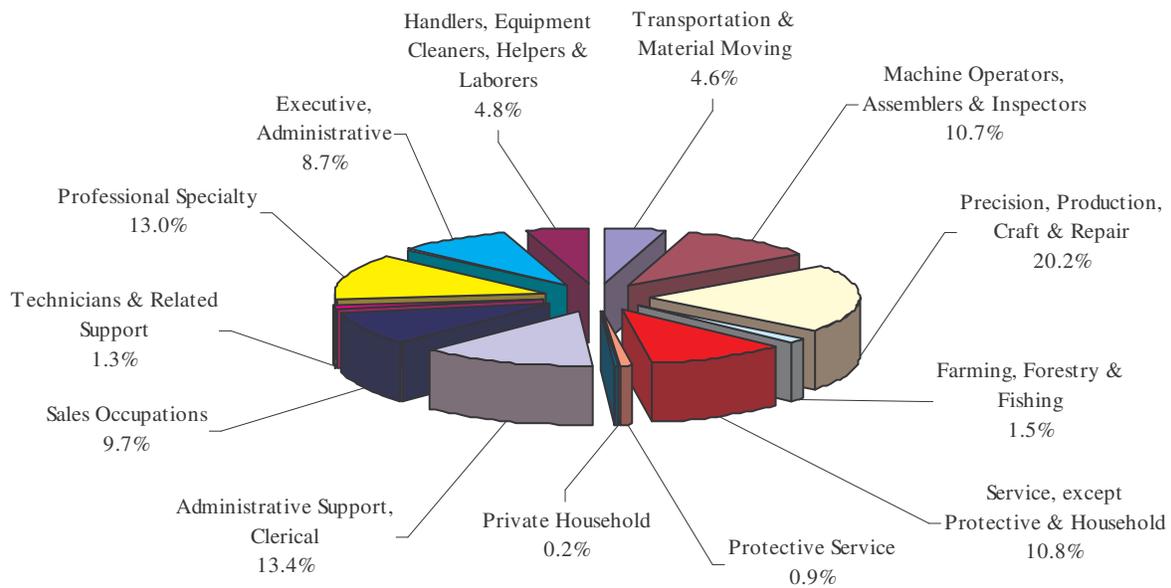


Occupations and Labor Force

Figures 3.6 and 3.7 depict labor force data for 1980 and 1990 respectively. Executive, administrative and professional specialty positions accounted for 22% of the labor force in 1980 and 29% in 1990. According to the 2000 Census data, Newbury had the highest percentage (32%) of its labor force in managerial and professional occupations (see Table 3.2).

Figure 3.6

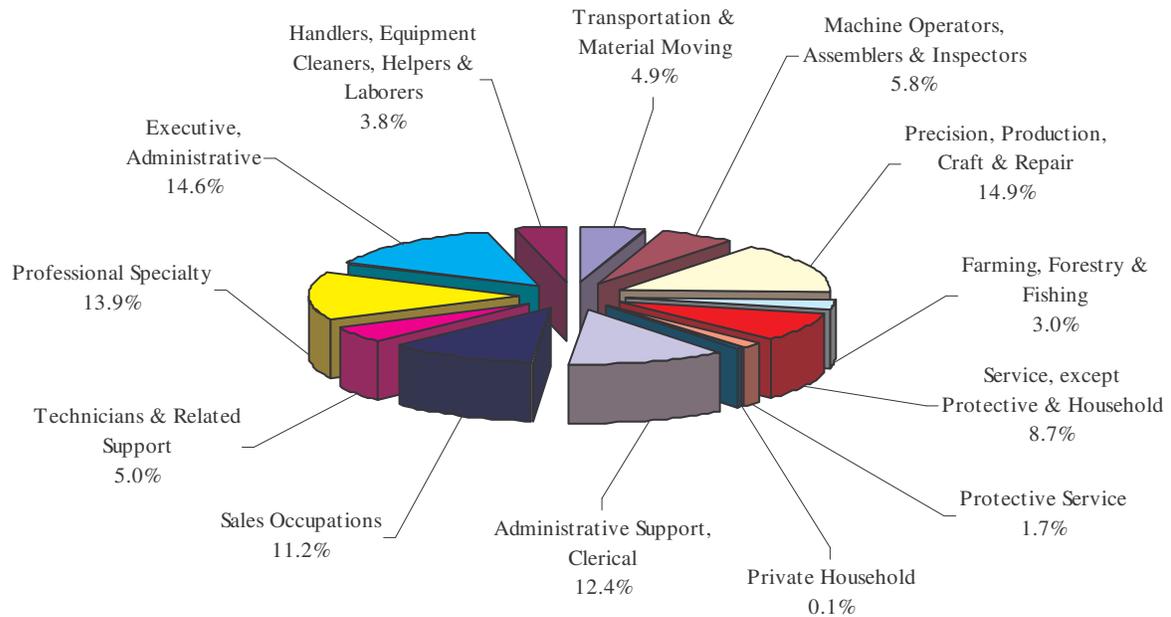
Labor Force: 1980
Newbury Township



Source: U.S. Census Bureau

Figure 3.7

**Labor Force: 1990
Newbury Township**



Source: U. S. Census Bureau

Table 3.2

**Occupations of Residents by Township: 2000
Gauga County**

Townships	Managerial & Professional	Service	Sales & Office	Farming, Forestry & Fishing	Construction, Extraction & Maintenance	Operators, Fabricators & Laborers
Auburn	44.0%	8.7%	28.6%	0.0%	9.4%	9.3%
Bainbridge	52.2%	9.4%	27.2%	0.0%	4.6%	6.6%
Burton	30.0%	13.8%	24.0%	1.3%	14.7%	16.2%
Chardon	41.5%	12.9%	27.9%	0.6%	6.1%	11.0%
Chester	43.7%	11.8%	26.5%	0.3%	8.6%	9.1%
Claridon	33.8%	14.6%	21.7%	0.9%	14.8%	14.2%
Hambden	29.6%	10.6%	29.2%	0.9%	11.0%	18.8%
Huntsburg	16.7%	12.4%	19.9%	2.6%	22.4%	26.0%
Middlefield	17.1%	11.2%	14.8%	2.3%	25.0%	29.6%
Montville	29.2%	11.2%	27.5%	1.8%	14.2%	16.1%
Munson	44.5%	10.9%	26.3%	0.0%	8.4%	9.9%
Newbury	32.2%	15.2%	26.9%	1.1%	9.2%	15.4%
Parkman	16.9%	12.2%	14.0%	3.9%	34.7%	18.3%
Russell	55.9%	8.0%	24.8%	0.5%	4.8%	6.0%
Thompson	25.7%	14.5%	25.9%	0.9%	14.7%	18.3%
Troy	27.8%	11.9%	20.7%	0.4%	20.9%	18.3%

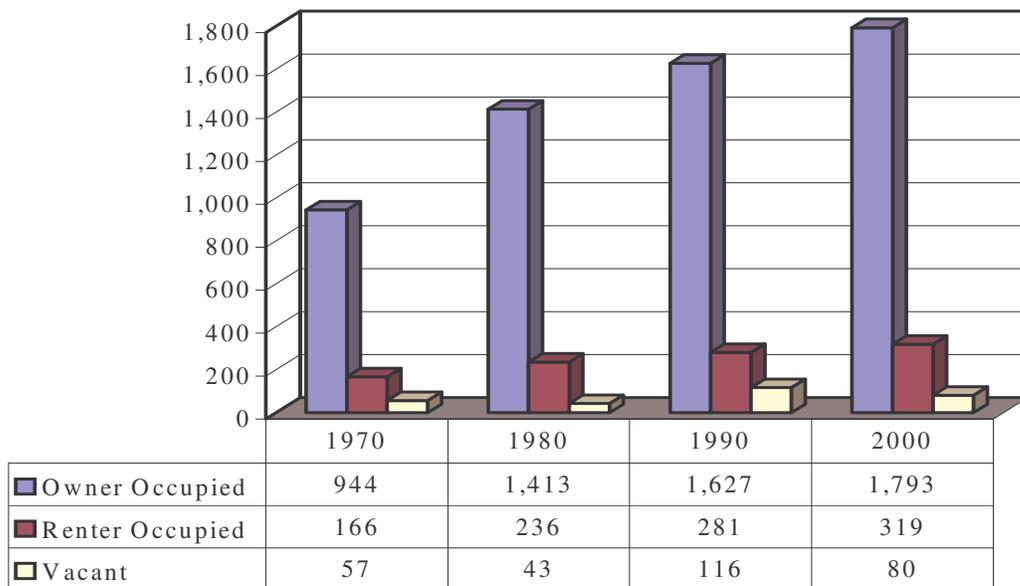
Source: U. S. Census Bureau

Home Ownership

The Census data indicate that home ownership is a strong element in the community. The number of owner-occupied housing units has steadily increased, going from 944 units in 1970 to 1,793 in 2000 (see Figure 3.8), representing 82% of the housing units in the township. From 1970 to 2000, the percentage of rental units showed a slight increase from 14% to 15% respectively. The number of vacant units decreased by 36 units from 1990 to 2000 compared to an increase of 45 units from 1980 to 1990.

Figure 3.8

Housing Units by Occupancy: 1970, 1980, 1990, and 2000
Newbury Township



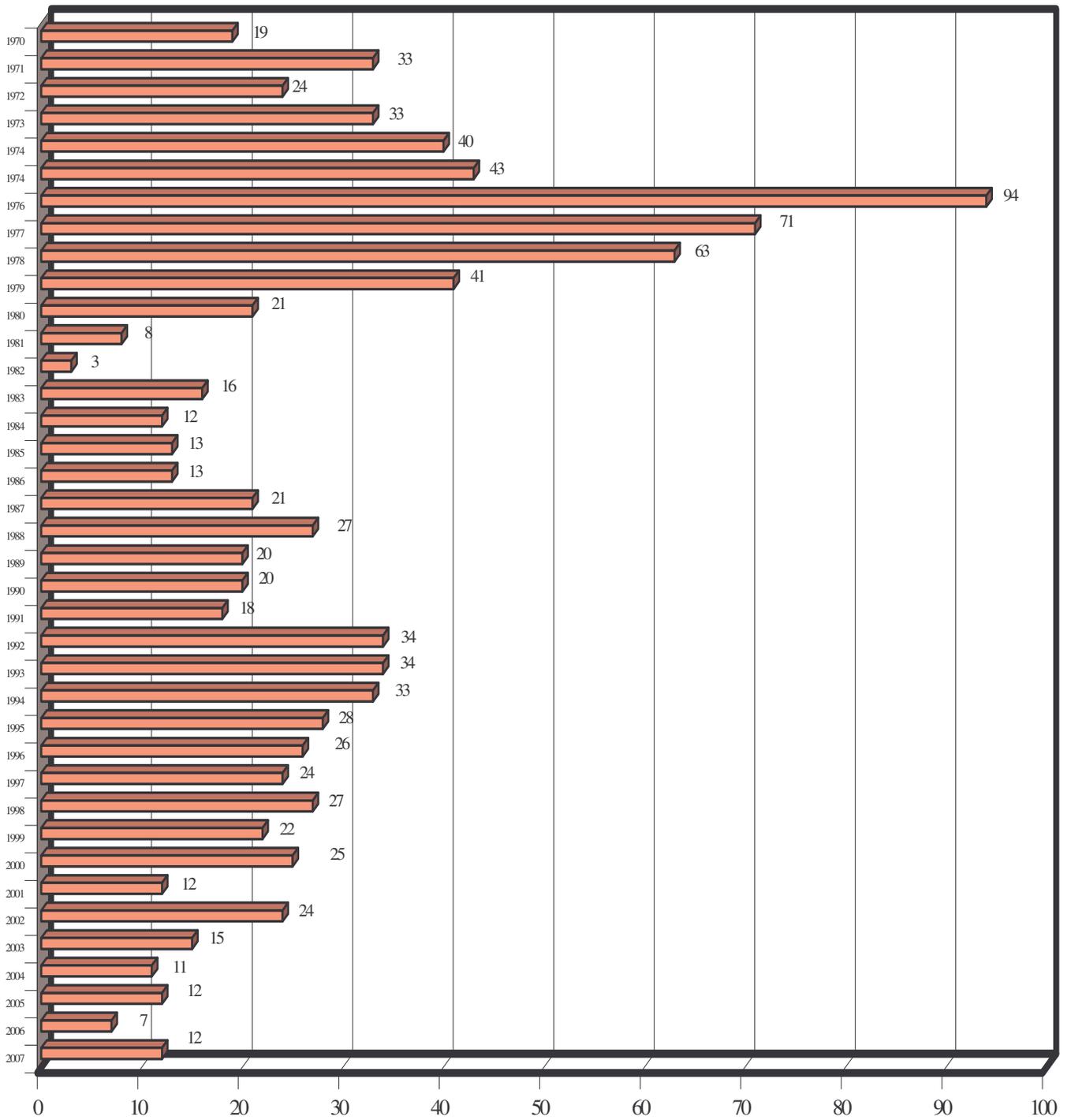
Source: U.S. Census Bureau

Housing Starts

Based upon permits issued by the county building department, 999 new homes were erected in Newbury from 1970 through 2007 (see Figure 3.9). Compared to the other 15 townships and the 5 municipalities within the county, Newbury was ranked fifth regarding the total number of housing starts (see Figure 3.10) averaging 26 per year (see Figure 3.11).

Figure 3.9

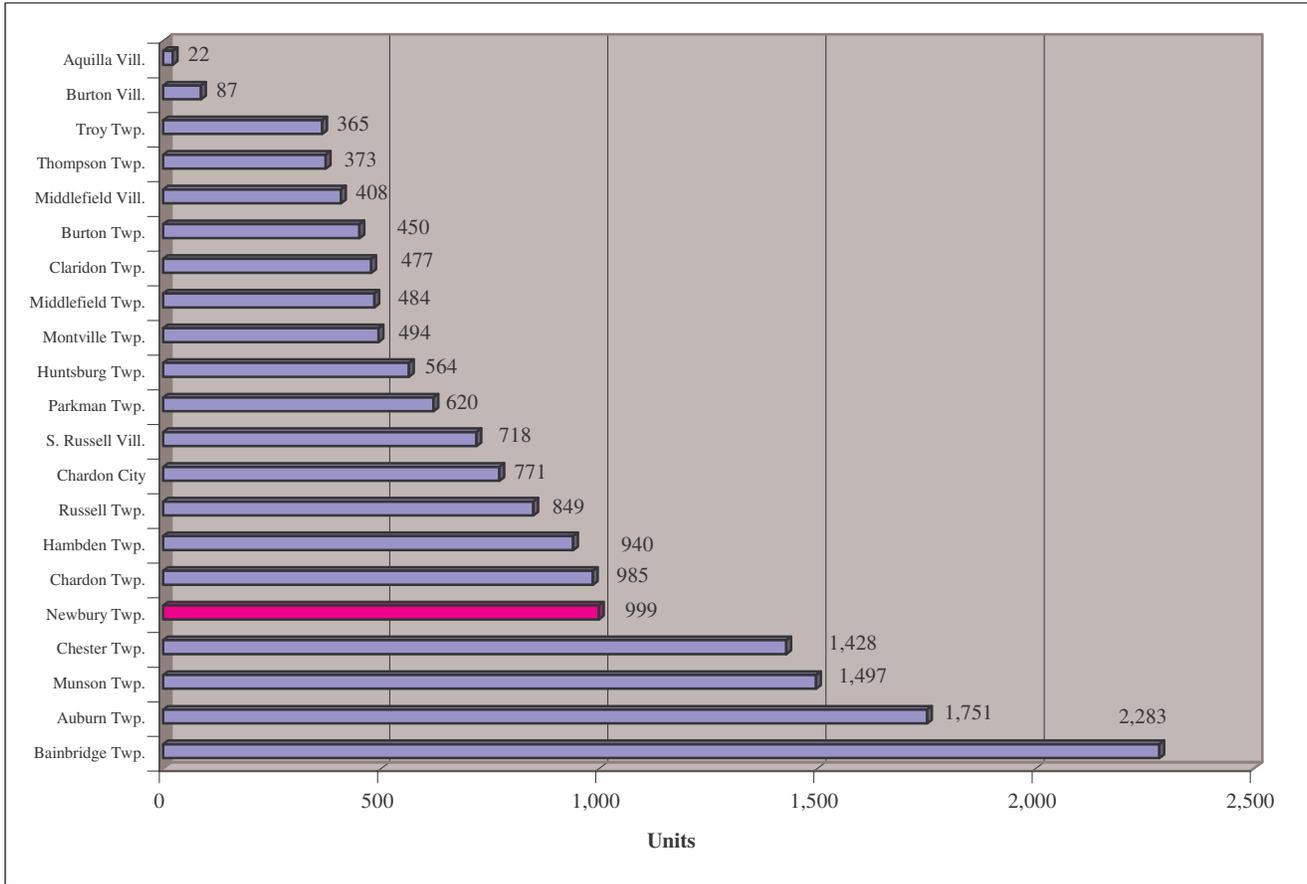
New Housing Starts: 1970 – 2007
Newbury Township



Source: Geauga County Building Department.

Note: Based on building permits issued.

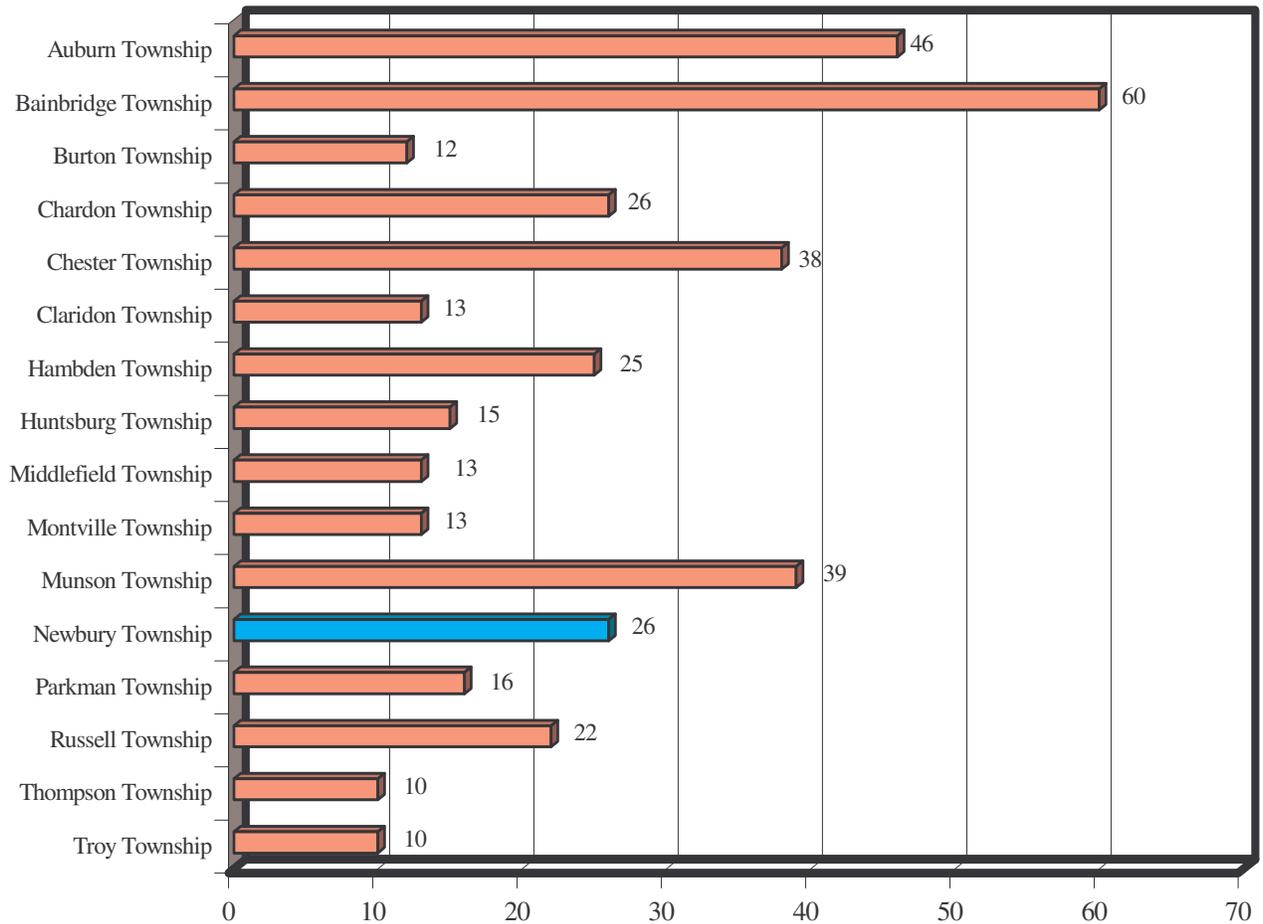
Figure 3.10
New Housing Starts by Township/Municipality: 1970 – 2007
Geauga County



Source: Geauga County Building Department

Figure 3.11

Average Annual Number of New Housing Starts by Township: 1970 – 2007
Geauga County



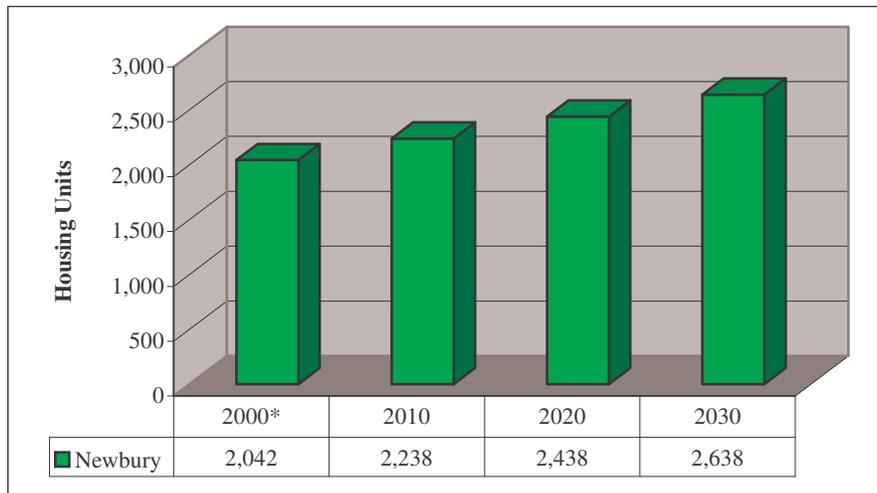
Source: Geauga County Planning Commission

Housing Unit Projections

Housing unit projections were prepared for single family units based on building permits issued from 1990 to 2002. Figure 3.12 displays the projections for single family housing units in Newbury Township and Figure 3.13 reveals the projections for the county.

Figure 3.12

Projected Single Family Housing Units: 2000 – 2030
Newbury Township

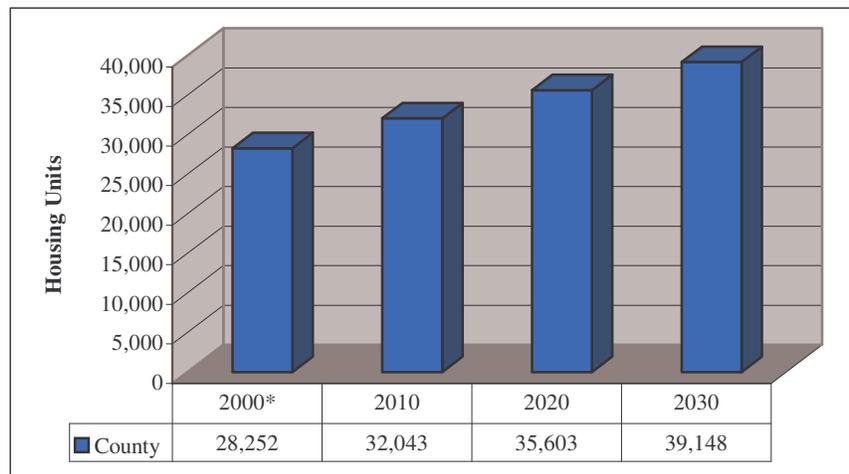


Source: Geauga County Planning Commission

* Single detached housing units, U.S. Bureau of the Census (2000)

Figure 3.13

Projected Single Family Housing Units: 2000 – 2030
Gauga County



Source: Geauga County Planning Commission

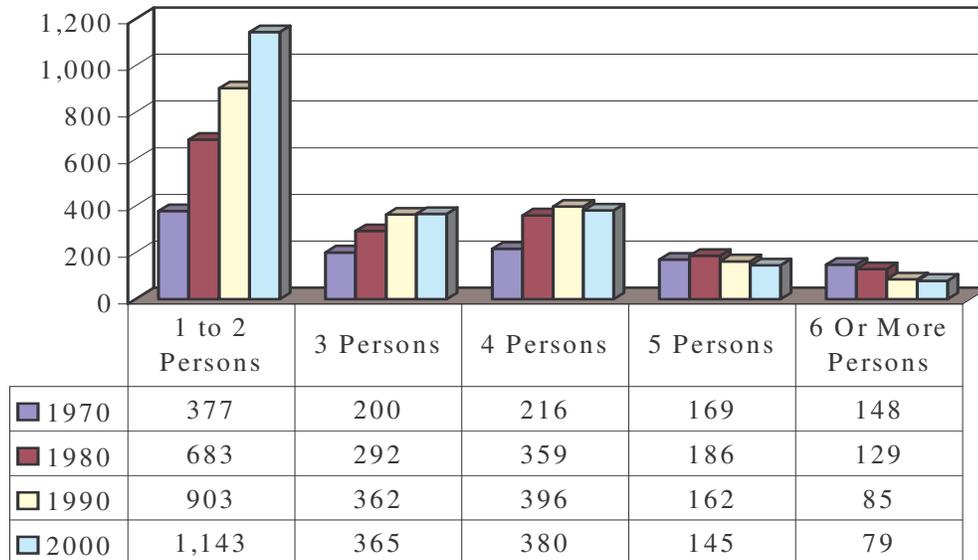
* Single detached housing units, U.S. Bureau of the Census (2000)

Persons Per Household

Although the number of housing units in the township has increased between 1970 and 2000, the number of persons per household has decreased, as shown in Figure 3.14. The township appears to be following the national trend toward a smaller number of persons per household.

Figure 3.14

Persons per Occupied Housing Unit: 1970, 1980, 1990, and 2000
Newbury Township



Source: U.S. Census Bureau

Value of Housing Units

The last three Census counts indicate that the value of owner occupied housing units has increased significantly (see Table 3.3). In 1970, 70% of the housing units were valued at less than \$24,000. In 1980, most units (53%) were in the \$50,000 to \$99,999 category. In 1990, the majority (77%) were valued at \$50,000 to \$149,999, and by 2000, 70% were valued at \$100,000 or more. According to the census data, the median value of homes in Newbury Township went from \$92,500 in 1990 to \$157,500 in 2000 representing almost a 70% increase. Newbury is ranked ninth compared to the other townships with a median value of \$157,400 per the 2000 Census (see Map 3.3).

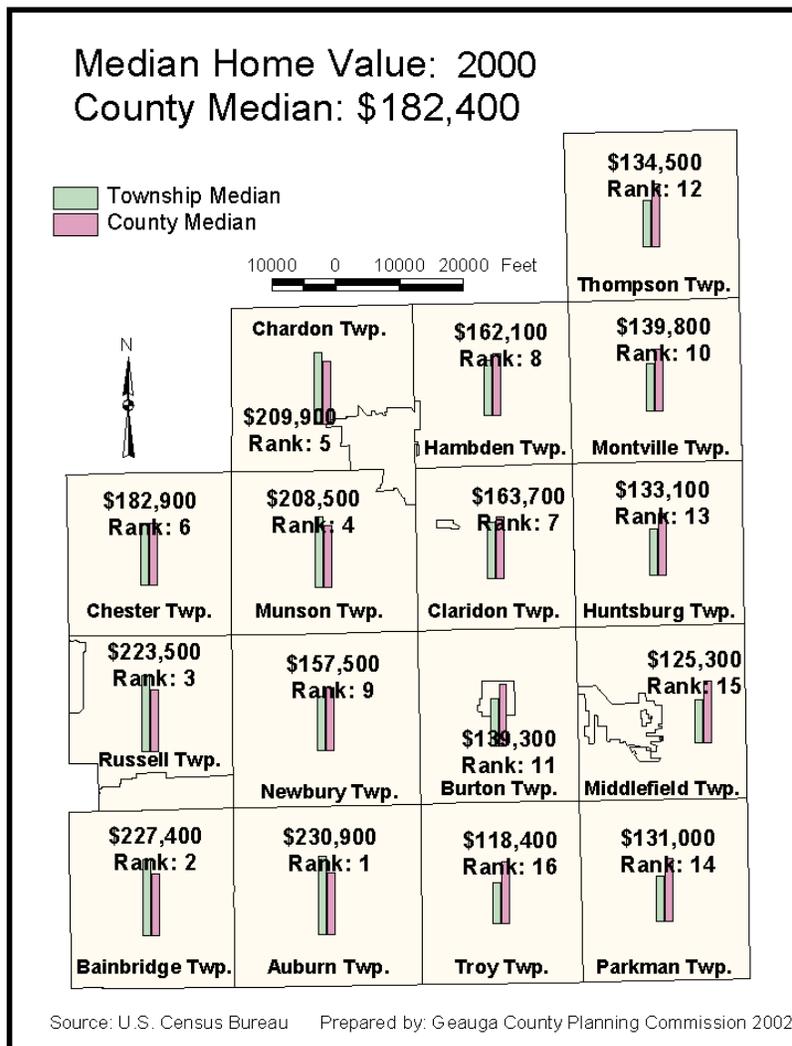
Table 3.3

**Value of Owner Occupied Housing Units: 1970, 1980, 1990, and 2000
Newbury Township**

Dollars	1970		1980		1990		2000	
	Units	Percent	Units	Percent	Units	Percent	Units	Percent
Under \$15,000	202	27.5%	12	1.1%	0	0.0%	0	0.0%
\$15,000 – \$24,999	309	42.0%	37	3.2%	0	0.0%	0	0.0%
\$25,000 – \$49,999	216	29.3%	268	23.5%	144	10.9%	49	3.2%
\$50,000 – \$99,999	9	1.2%	603	52.9%	610	46.4%	291	18.7%
\$100,000 – \$149,999	0	0.0%	174	15.3%	397	30.2%	382	24.5%
\$150,000 and over	0	0.0%	45	4.0%	164	12.5%	836	53.6%
Total	736	100.0%	1,139	100.0%	1,315	100.0%	1,558	100.0%

Source: U.S. Census Bureau

Map 3.3



Home Sales

From 1990 – 2007, there was an average of 38 single-family home sales per year in Newbury (see Table 3.4). The average sale price for a dwelling has risen from \$66,361 in 1990 to \$217,610 in 2007 (see Figure 3.15) representing a 228% increase.

Table 3.4

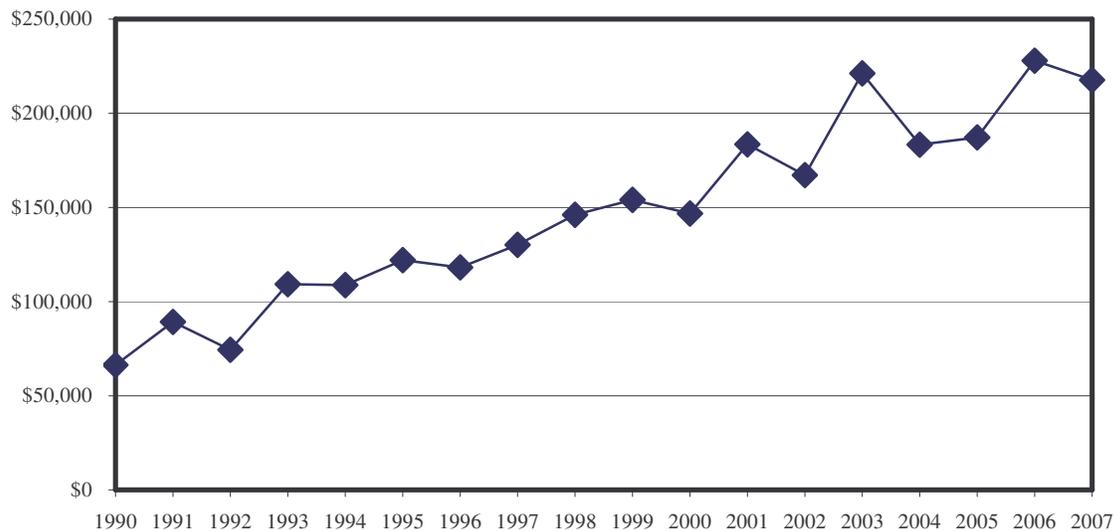
Single Family Home Sales: 1990 – 2007
Newbury Township

Price	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07
<\$30,000	6	4	4	2	1	2	1	0	1	2	0	0	0	0	0	0	0	0
\$30,000-\$49,999	5	5	4	3	6	2	4	4	1	1	0	0	2	1	1	1	0	0
\$50,000-\$69,999	5	1	2	5	6	3	7	6	1	3	7	7	9	1	0	5	2	0
\$70,000-\$89,999	5	6	1	3	3	5	1	4	1	5	4	6	5	0	6	1	2	1
\$90,000-\$109,999	2	3	2	0	3	2	3	1	3	2	2	2	1	2	2	2	2	1
\$110,000-\$124,999	3	3	2	5	2	2	5	4	4	0	3	0	4	1	5	4	2	4
\$125,000-\$139,999	1	4	1	2	0	3	3	6	1	1	4	2	3	2	4	1	1	3
\$140,000-\$159,999	0	2	1	4	4	3	4	3	4	10	5	0	3	2	2	2	6	2
\$160,000-\$174,999	0	0	0	1	3	2	2	3	3	1	1	6	3	1	4	3	4	6
\$175,000 +	1	2	1	4	5	5	7	8	8	13	13	23	28	35	26	29	36	24
Total	28	30	18	29	33	29	37	39	27	38	39	46	58	45	50	48	55	41

Source: Geauga County Auditor's Office, 2008

Figure 3.15

Average Sale Price of Homes: 1990 – 2007
Newbury Township



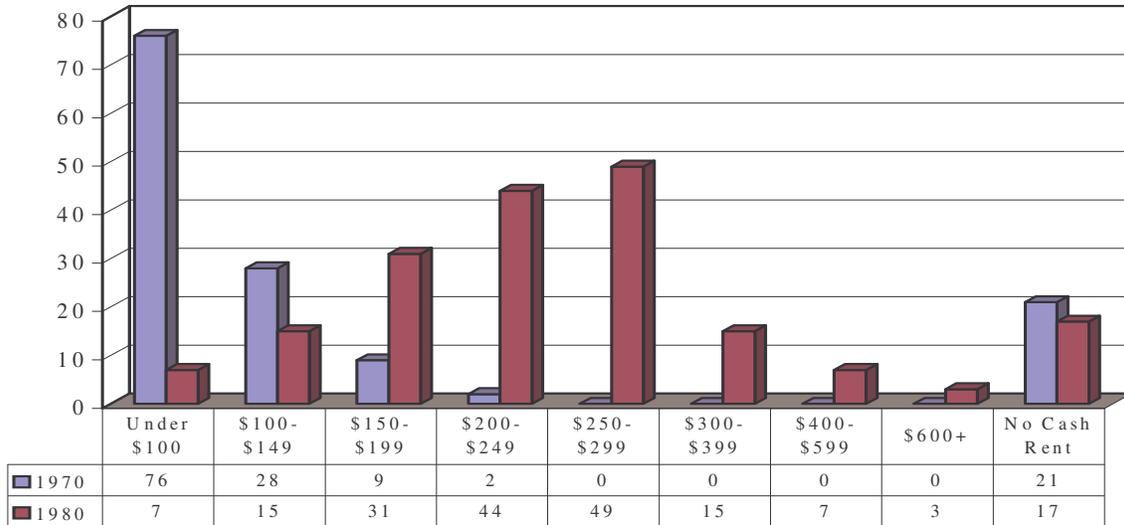
Source: Geauga County Auditor's Office, 2008

Contract Rent

Monthly rent increased between 1970 and 2000. In 1970, according to the Census, the highest percentage of renters paid \$60 to \$79 per month. In 1980, most were paying between \$250 to \$299. In 1990, the largest percentage of renters were paying between \$400 to \$449 monthly and by 2000 the majority were paying \$500 to \$749 per month (see Figures 3.16 and 3.17).

Figure 3.16

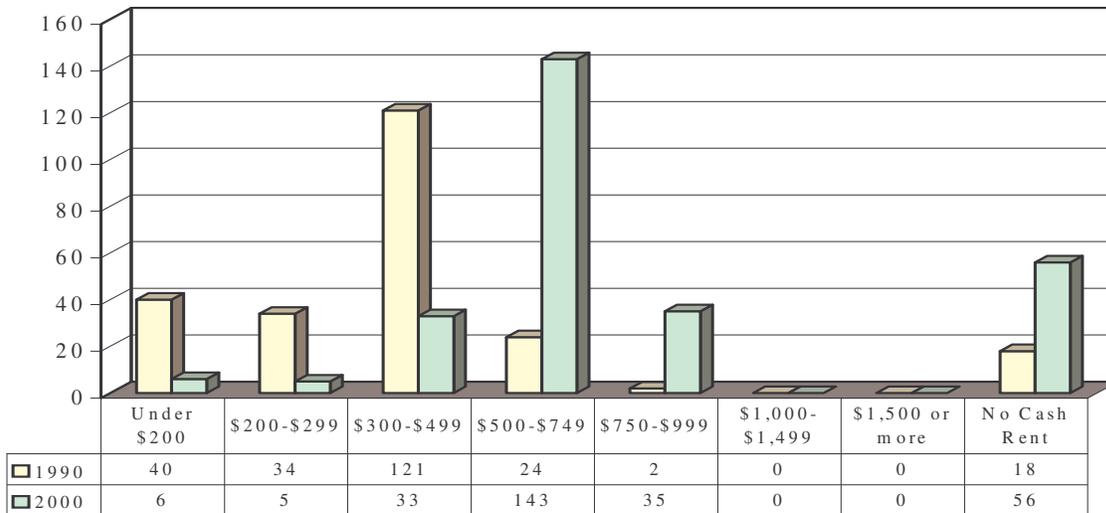
Monthly Contract Rent: 1970 and 1980
Newbury Township



Source: U.S. Census Bureau

Figure 3.17

Monthly Contract Rent: 1990 and 2000
Newbury Township



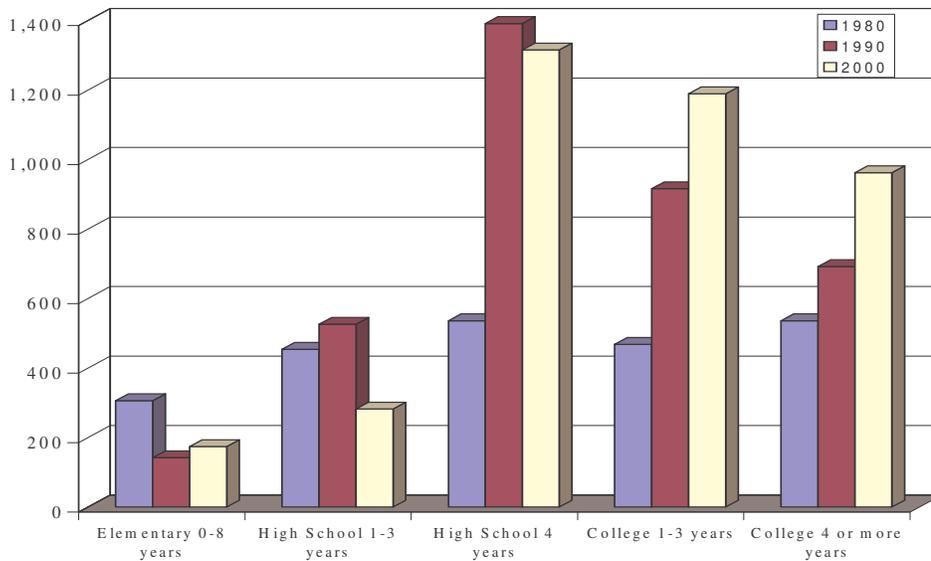
Source: U.S. Census Bureau

Educational Level

Figures 3.18 and 3.19 reveal information pertaining to the educational level of Newbury and county residents respectively from the 1980, 1990, and 2000 Census. In 1980, about 76% of the township's residents had a high school diploma. In 1990, this figure increased to 82% and rose to 88% by the year 2000. These figures are a close match to the county levels.

Figure 3.18

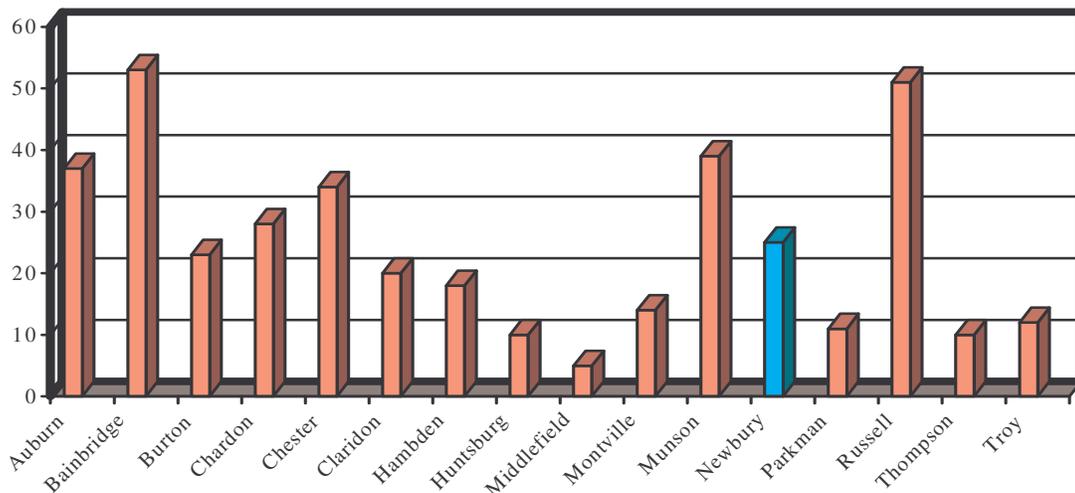
Years of School Completed (Persons >25 Years Old): 1980, 1990, and 2000
Newbury Township



Source: U.S. Census Bureau

Figure 3.19

Percentage of College Graduates (Persons >25 Years Old) by Township: 2000
Geauga County



Source: U.S. Census Bureau

CHAPTER 4

NATURAL RESOURCES

Introduction

A significant aspect of this plan entails the collection and analysis of key environmental data. The maps in this section provide a visual display of the existing environmental features in the township. It should be noted that the maps are not meant to replace an on-site investigation by a qualified professional soils scientist or a geotechnical engineer. Additional environmental data on a county-wide basis may be found in the Geauga County General Plan (GCPC, 2003) available on-line at: www.co.geauga.oh.us/departments/planning_commission.

The following environmental variables were collected, mapped, and analyzed:

- | | |
|-------------------------------------|--|
| ■ Detailed Soils | ■ Water Basins |
| ■ Prime Agricultural Land | ■ Watersheds |
| ■ Depth to Bedrock | ■ Hydrography |
| ■ Slope | ■ Flood Plains |
| ■ Topography | ■ Generalized Wetlands |
| ■ Shrink-Swell potential | ■ Drainage |
| ■ Potential Frost Action | ■ Generalized Groundwater Availability |
| ■ Depth to Seasonal High Watertable | ■ Groundwater Pollution Potential |
| ■ Permeability | |

Detailed Soils

A detailed soils analysis provides basic insights into the limitations of the physical environment on development. Each soil type reflects distinct characteristics which can be rated according to the degree of limitation that they represent for a specified land use.

The Ohio Department of Natural Resources (ODNR), Division of Lands and Soils, conducted a soil survey of Newbury Township. Soil scientists examined the soil to a depth of three to five feet by means of an auger. The soil samples were laboratory tested to determine such properties as texture, permeability, and type of parent material. Wetlands, streams, and drainageways were also noted. Aerial base maps were utilized, following the field observations, to delineate the boundaries of the various soil types identified. A total of 33 different soil classifications were identified in Newbury Township (see Table 4.1 and Map 4.1).

The inventory and evaluation of the soils is a key element in the land use planning process. The land use plan is meant to be in harmony with the characteristics of the soil and the capability of it to support development.

Table 4.1
Soils Types
Newbury Township

	<u>Soils</u>	<u>Acreage</u>	<u>Percent of Township</u>
	Bg B - Bogart	78.2	0.41%
	Ca - Canadice	118.6	0.65%
	Cd B, C - Canfield	1,105.4	6.05%
	Cf - Carlisle Muck	153.4	0.84%
	Cn A, B, C - Chili	804.9	4.45%
	Co D - Chili Gravelly	41.5	0.25%
	Cy D, F - Chili Oshtemo	596.4	3.27%
	Da - Damascus	38.1	0.21%
	Eh B, C, D, E, F - Ellsworth	4,468.3	24.44%
	Fc A, B - Fitchville	241.0	1.31%
	Gf B, C - Glenford	27.1	0.15%
	Ho - Holly	598.0	3.27%
	Hs A, B - Haskins	450.5	2.46%
	Jt A - Jimtown	135.8	0.74%
	Lr B, C - Lordstown	73.6	0.40%
	Lx D, F - Lordstown Rock	205.7	1.12%
	Ly B, C - Loudonville	251.5	1.37%
	Mg A, B - Mahoning	5,478.1	29.98%
	Or - Orrville	318.2	1.74%
	Os B, C - Oshtemo	223.7	1.22%
	Pg - Pits, Gravel	178.0	0.97%
	Re A, B - Ravenna	449.8	2.46%
	Rm B - Rawson	144.4	0.79%
	Rs B, C, D, E, - Rittman	205.0	1.13%
	Sb - Sebring	791.4	4.33%
	Sf - Sheffield	2.0	0.01%
	Tg - Tioga	2.4	0.01%
	Ud - Udorthents	143.0	0.78%
	Ur - Urban Land	18.8	0.10%
	W - Water	374.6	2.05%
	Wb A, B - Wadsworth	443.1	2.43%
	Wc - Wallkill	45.4	0.25%
	Wu D - Wooster	66.6	0.36%
	Total	18,272.5	100.00%

Prime Agricultural Land

As defined by the United States Department of Agriculture, Natural Resource Conservation Service (NRCS), prime agricultural land has the appropriate soil quality, moisture supply, and attendant growing season to produce a high crop yield when treated and managed in accordance with modern farm methods. Generally, prime agricultural soils will be more productive under intense cultivation than other soils, using the same management practices. About 72% of the soils in the township are considered prime agricultural land (see Table 4.2 and Map 4.2).

Table 4.3 reflects the prime agricultural land classification system utilized by NRCS. The numbers represent progressively greater limitations, a narrower choice of crops, and the way crops respond to management. The letters given are subclasses, which indicate the problems associated with a particular soil type. The letter “E” means that the primary limitation is the risk of erosion (unless close-growing plant cover is maintained) and the letter “W” indicates that water in, or on the surface of, the soil interferes with plant growth or cultivation.

More information concerning farmland and related agricultural activities may be found in the Geauga County Farmland Preservation Plan (GCPC, 2001) available on-line at www.co.geauga.oh.us/departments/planning_commission.

Table 4.2

Prime Agricultural Soil Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Prime	2,963.59	16.22%
Prime with Drainage	10,245.05	56.07%
Non-Prime	4,349.28	23.80%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.2

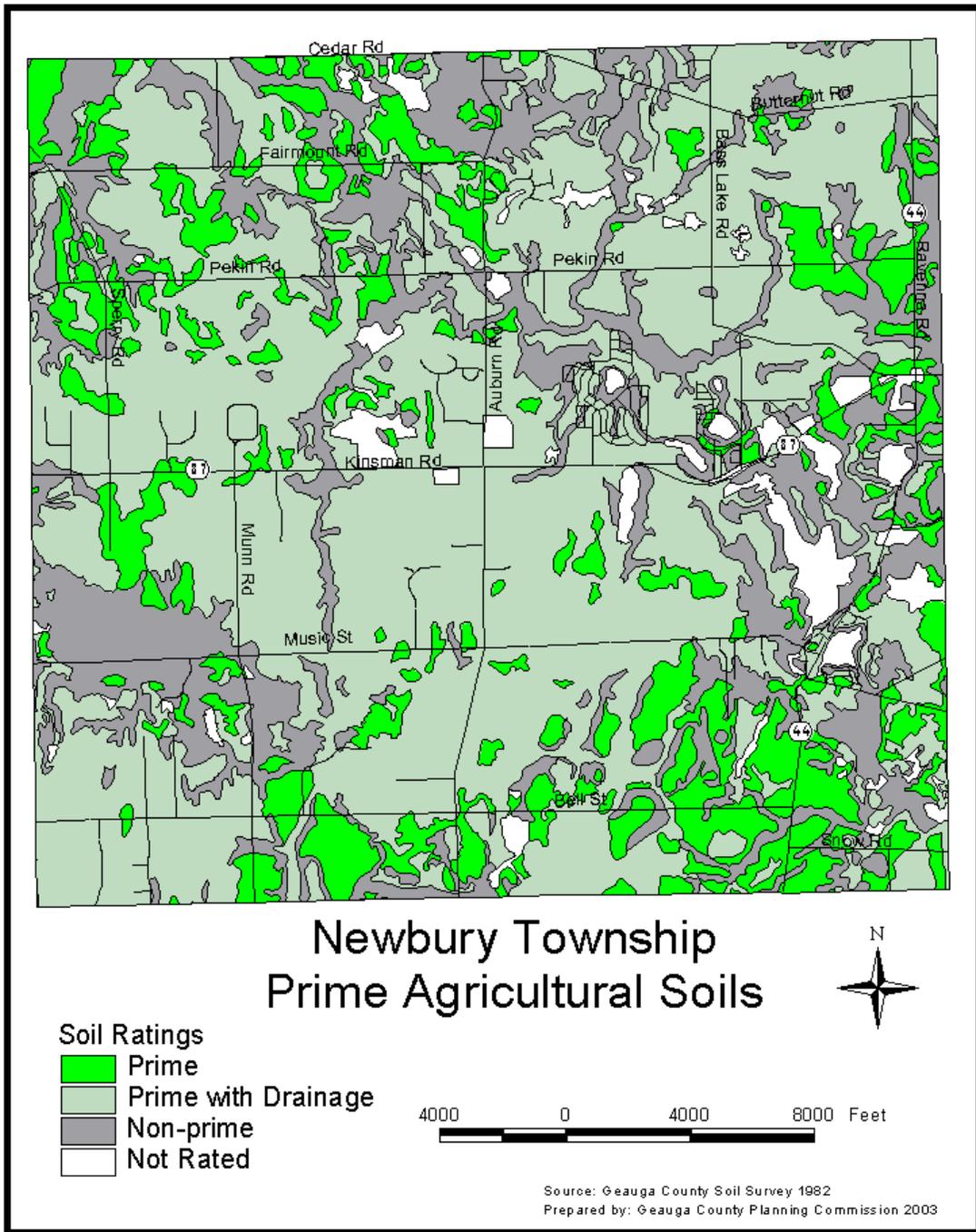


Table 4.3**Agricultural Ratings**
Newbury Township

Mapping Units	Soils	Agricultural Classification	Prime Land
Bg B	Bogart	2E	X
Ca	Canadice	3W	
Cd B	Canfield	2E	X
Cd C	Canfield	3E	
Cf	Carlisle	5W	
Cn A, B	Chili	2E	X
Cn C	Chili	3E	
Co D	Chili	4E	
Cy D, F	Chili-Oshtemo	4E	
Da	Damascus	3W	X*
Eh B	Ellsworth	2E	X
Eh C	Ellsworth	4E	
Eh D, E, F	Ellsworth	5E	
Fc A, B	Fitchville	3W	X*
Gf B	Glenford	2E	X
Gf C	Glenford	3E	
Hs A, B	Haskins	2E	X*
Ho	Holly	3W	
Jt A	Jimtown	3W	X*
Lr B	Lordstown	2E	X
Lr C	Lordstown	3E	
Lx D, F	Lordstown	5E	
Ly B	Loudonville	2E	X
Ly C	Loudonville	5E	
Mg A, B	Mahoning	3E	X*
Or	Orrville	3W	
Os B	Oshtemo	2E	X
Os C	Oshtemo	3E	
Re A, B	Ravenna	3E	X*
Rm B	Rawson	2E	X
Rs B	Rittman	2E	X
Rs C	Rittman	4E	
Rs D, E	Rittman	5E	
Sb	Sebring	3W	X*
Sf	Sheffield	3W	
Tg	Tioga	3W	
Wb A, B	Wadsworth	3E	X*
Wc	Wallkill	5W	
Wu D	Wooster	5E	

* Qualify as prime Farmland provided proper drainage measures are employed.

Source: Geauga County Soil Survey, 1982

Depth to Bedrock

About three percent of the township (see Table 4.4) is underlain by bedrock at a depth of less than five feet from the surface. As shown on Map 4.3, the areas of shallow bedrock are primarily located around the center of the township. The specific soil types which identify shallow bedrock include: Lordstown Rock Outcrop Complex, Loudonville Silt Loam, and Lordstown Loam.

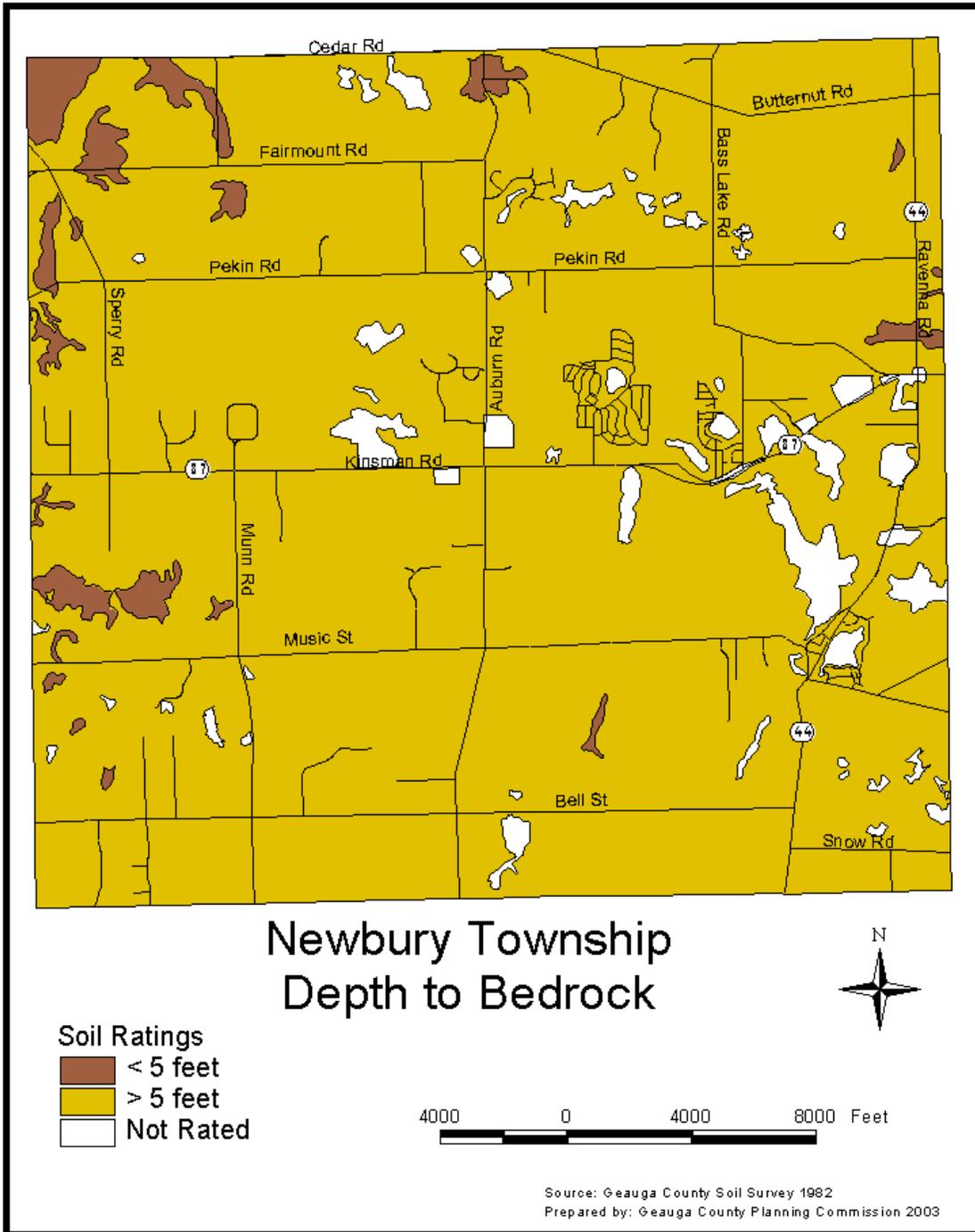
Table 4.4

Depth to Bedrock Map Legend
Newbury Township

<u>Depth to Bedrock</u>	<u>Acres</u>	<u>Percent of Township</u>
Depth to Bedrock < 5 feet	530.88	2.91%
Depth to Bedrock > 5 feet	17,027.04	93.18%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.3



Slope

Slope represents the inclination of the land surface from a horizontal plane. The percentage of slope is determined by taking the vertical distance divided by the horizontal distance, then multiplying it by 100. Consequently, a 10 percent slope is a vertical change of 10 feet in 100 feet of horizontal distance.

According to Table 4.5 and Map 4.4, over 66% of the terrain in Newbury Township is classified as level to gently rolling (0 to 6%). Slope of 6 to 12% covers over 18% of the community's land area. The highest point in the township is at an elevation of approximately 1,360 feet, which occurs along Butternut Road approximately one half mile west of S.R. 44. The lowest point is at an elevation of 1,080 feet along Silver Creek.

The degree of slope has an impact on the feasibility of placing improvements on a site. Steeply sloped areas may be unsuitable for development. Erosion and runoff of soil sediment during construction is a significant concern. On-site septic systems may not function properly on severe or very severe soil slopes.

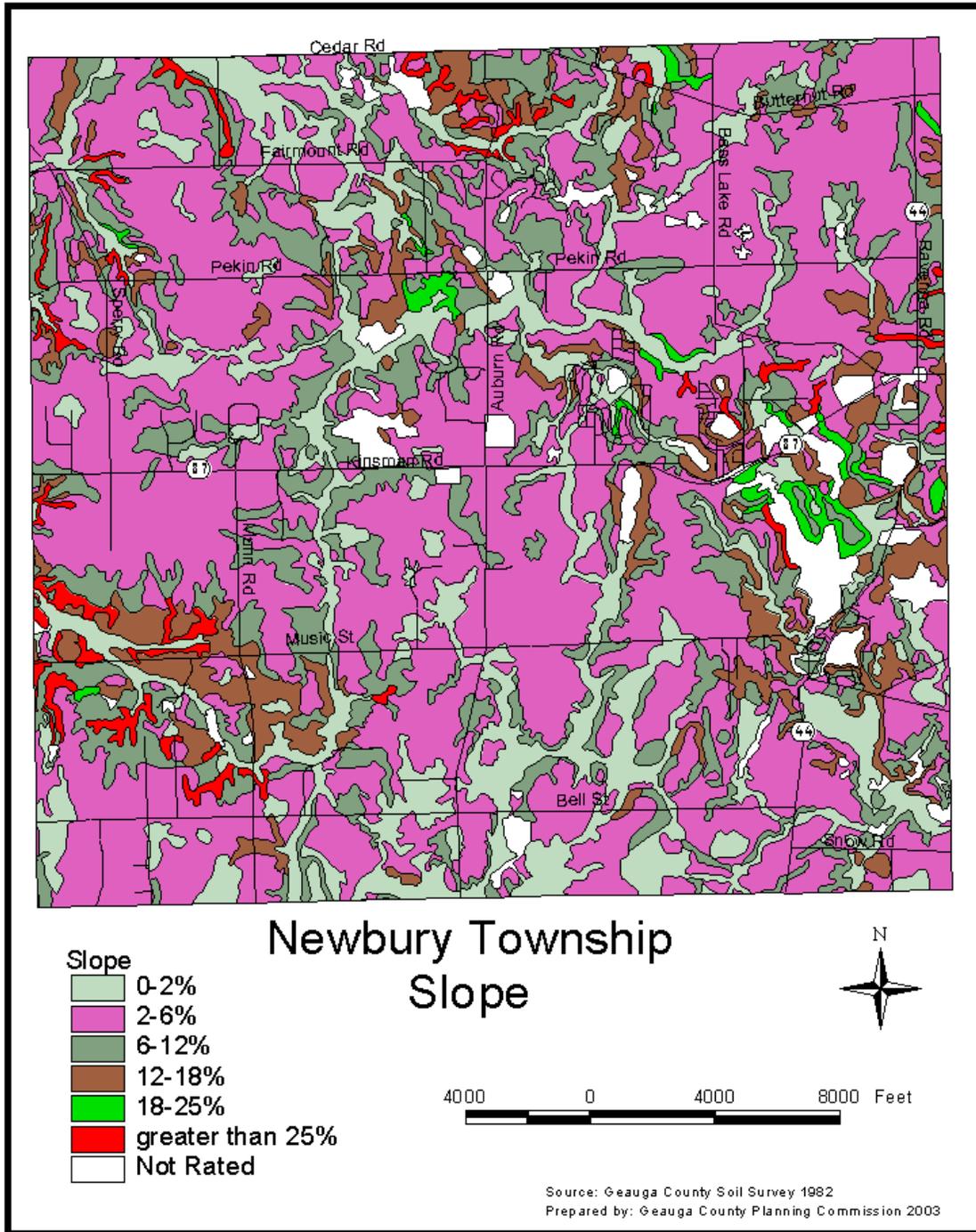
Table 4.5

Slope Map Legend
Newbury Township

<u>Percent Slope</u>	<u>Acres</u>	<u>Percent of Township</u>
0 – 2%	3,130.14	17.13%
2 – 6%	9,098.25	49.79%
6 – 12%	3,294.62	18.03%
12 – 18%	1,464.96	8.02%
18 – 25%	204.48	1.12%
Greater than 25%	365.47	2.00%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

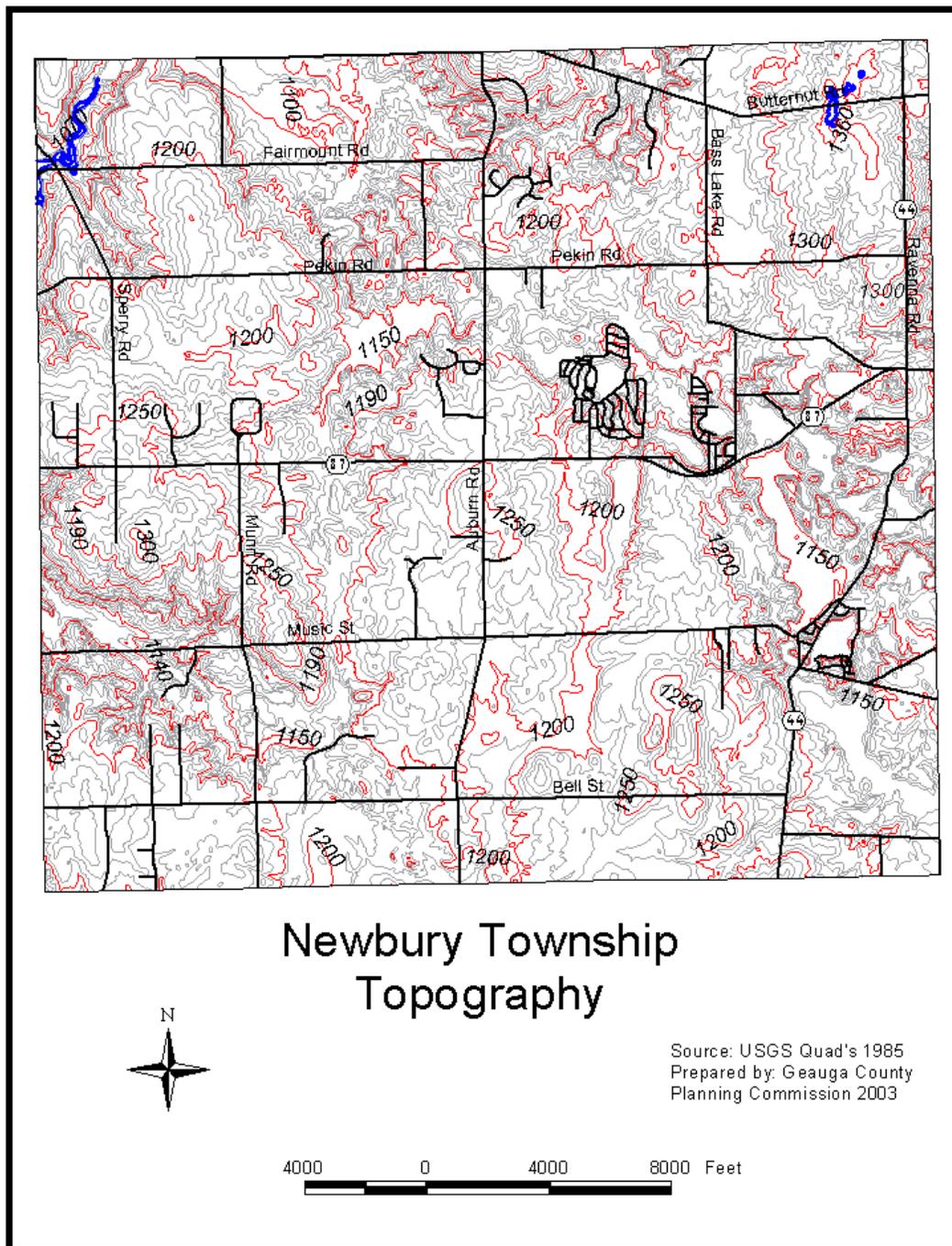
Map 4.4



Topography

The highest point in the township is at an elevation of approximately 1,360 feet located in the northeast corner of the township along Butternut Road. The lowest point is at an elevation of 1,070 feet located in the northwest corner of the township along the township border and Fairmount Road (see Map 4.5).

Map 4.5



Shrink-Swell Potential

Shrink-swell potential is a measurement of the relative change in volume of soil material, based on changes in its moisture content. The degree of swelling and shrinking of soil is also influenced by the amount of clay ingredient. Soils rated with a “high” shrink-swell potential may cause roads to deteriorate and foundations to crack and move. The majority of the township, about 63%, has soils rated “moderate” (see Table 4.6 and Map 4.6).

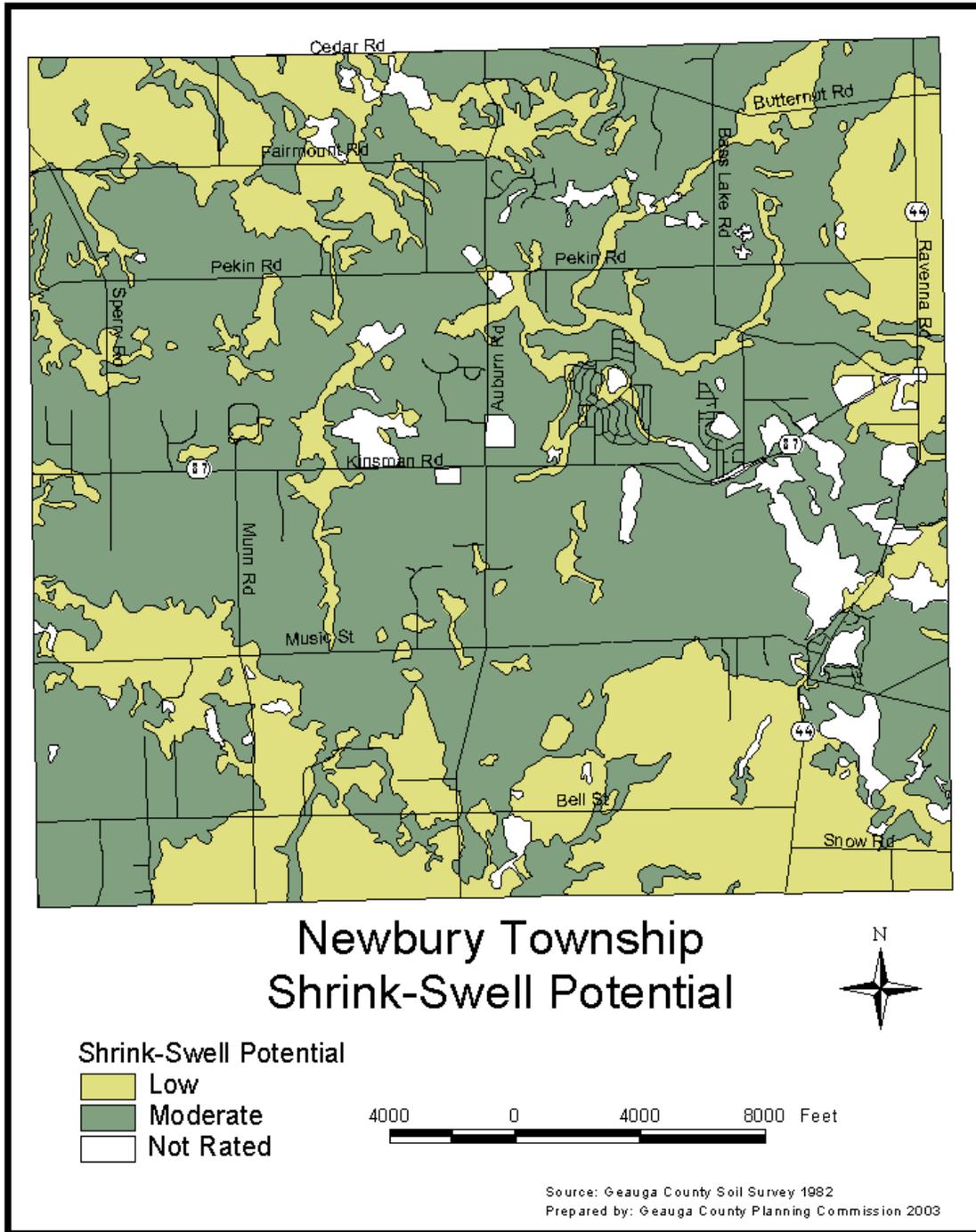
Table 4.6

Shrink-Swell Potential Map Legend **Newbury Township**

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Low	5,911.57	32.35%
Moderate	11,493.07	62.90%
Not Rated	867.86	4.75%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.6



Potential Frost Action

Potential frost action rates the possibility for damage resulting from heaving, excessive wetting, and loss of soil strength in areas where substantial ground freezing is common. Low soil strength coupled with frost heave may cause damage to roads and foundations. The majority of the township (82%) is rated “high” for potential frost action (see Table 4.7 and Map 4.7).

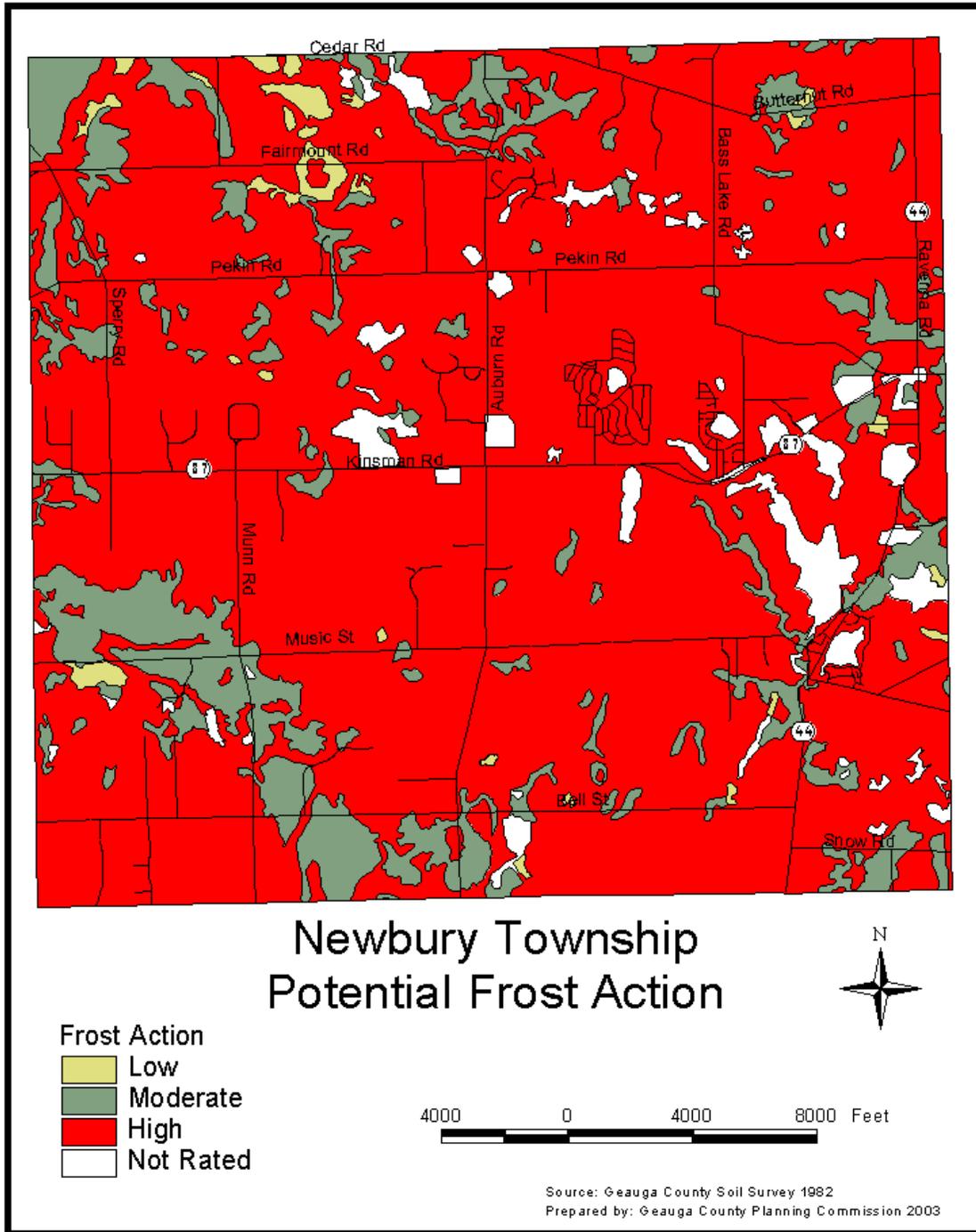
Table 4.7

Potential Frost Action Map Legend **Newbury Township**

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Low	223.75	1.22%
Moderate	2,305.85	12.62%
High	15,028.32	82.25%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.7



Depth to Seasonal High Water Table

Depth to seasonal high water table indicates the shallowest depth at which the soil is saturated in a zone more than six inches thick for a continuous period of more than two weeks. A high seasonal water table may cause the improper operation of on-site sewage disposal systems, wet or flooded basements, and cracked or damaged foundations. Specially designed drainage systems and foundations may be required. About 32% of the township is in the 24-36 inch category (see Table 4.8 and Map 4.8).

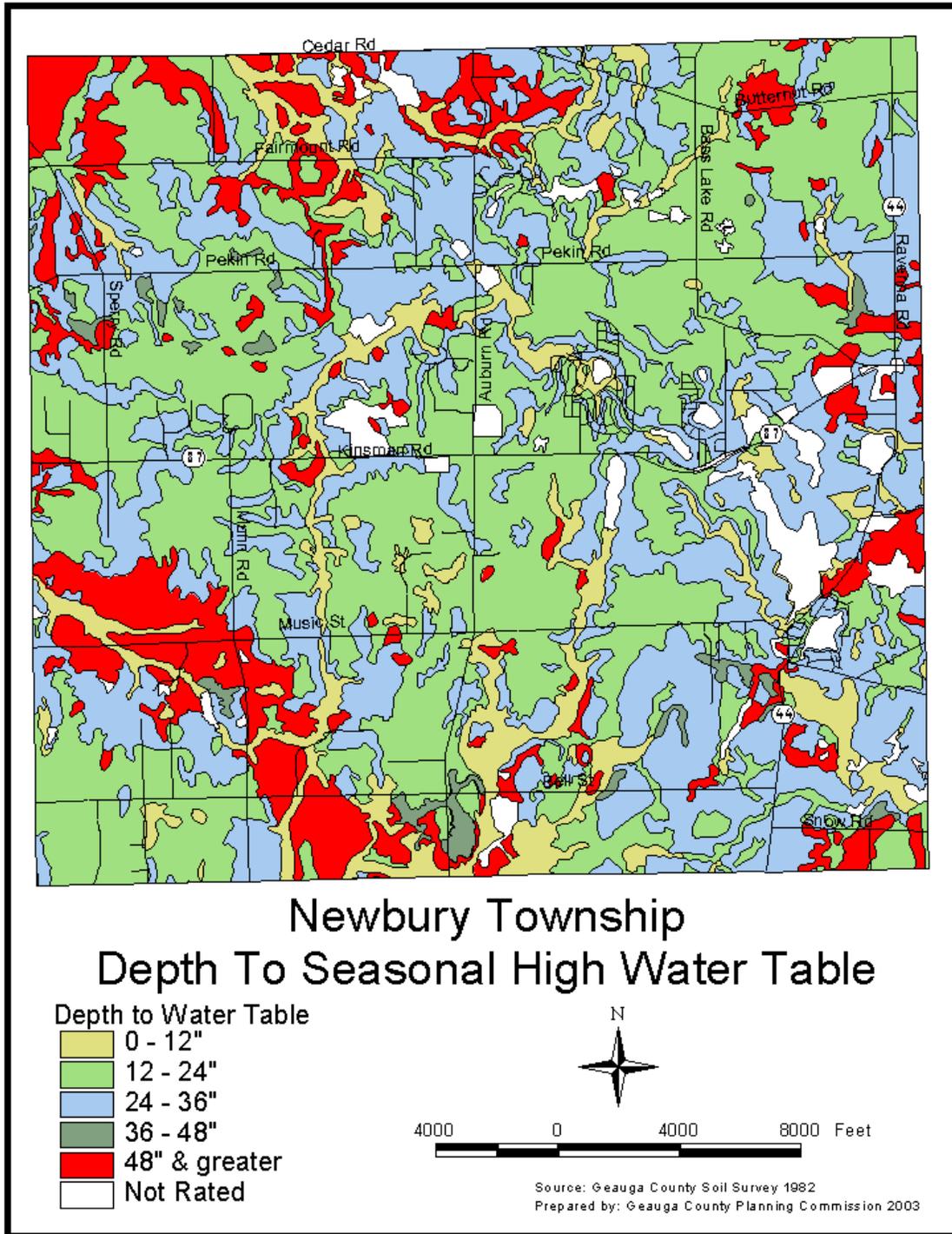
Table 4.8

Depth to Seasonal High Water Table Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
0 – 12 inches	1,746.05	9.56%
12 – 24 inches	7,516.40	41.13%
24 – 36 inches	5,884.50	32.20%
36 – 48 inches	213.38	1.17%
Greater than 48 inches	2,197.59	12.03%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.8



Permeability

Permeability is an estimate of the rate of downward water movement in a soil horizon when it is saturated but allowed to drain freely. It is typically expressed in inches per hour (iph). The rate of permeability is primarily determined by the soil texture, structure, porosity, and infiltration tests. It is an important variable in the successful operation of septic tank leach fields. The majority of the township (70%) is rated “very slow” to “slow” for permeability (see Table 4.9 and Map 4.9).

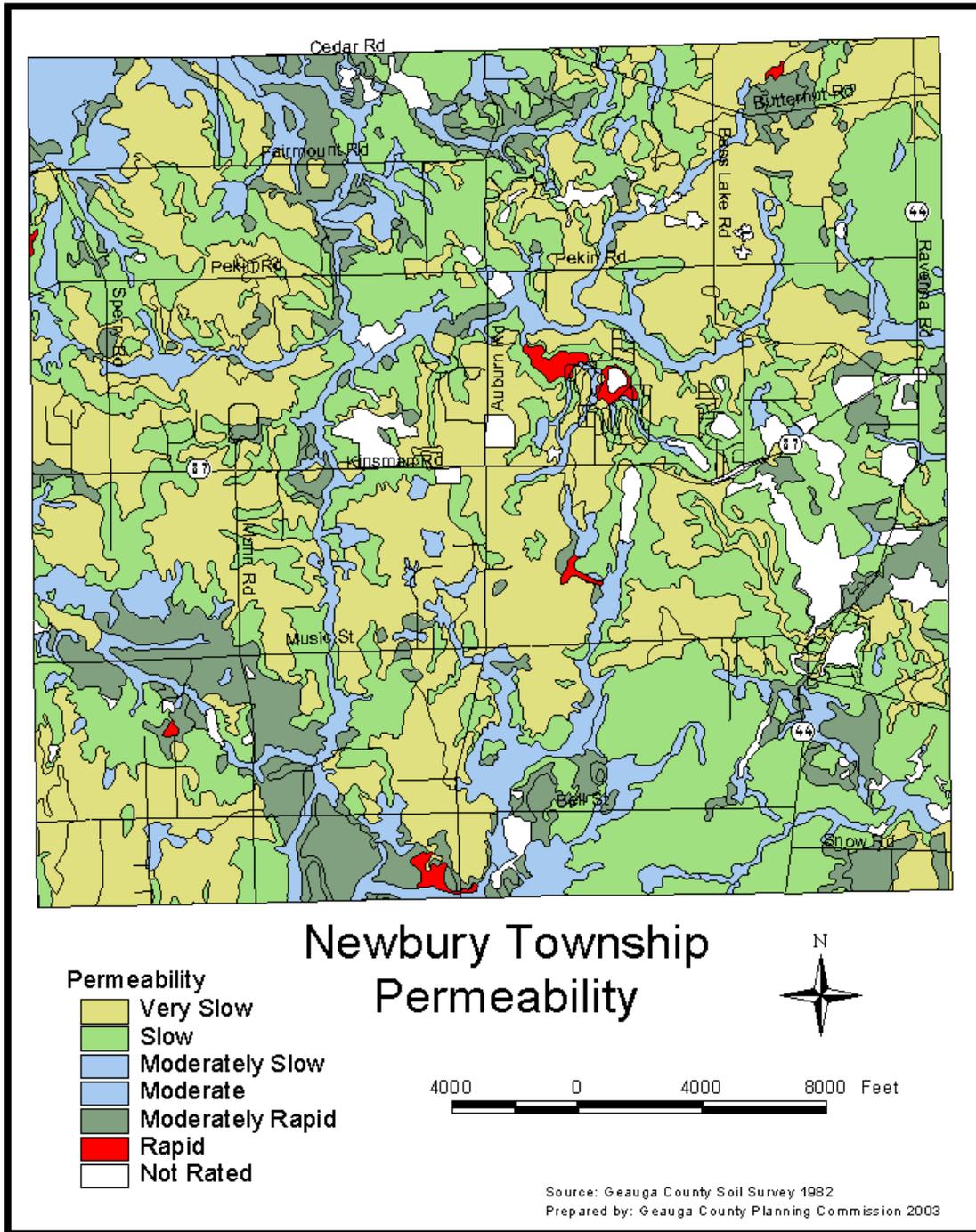
Table 4.9

Permeability Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Very Slow: < 0.06 iph	6,634.66	36.31%
Slow: 0.06 to 0.20 iph	6,230.08	34.09%
Moderately Slow: 0.2 to 0.6 iph	1,099.15	6.02%
Moderate: 0.6 to 2.0 iph	1,474.13	8.07%
Moderately Rapid: 2.0 to 6.0 iph	2,033.99	11.13%
Rapid: 6.0 to 20.0 iph	85.91	0.47%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.9



Water Basins and Watersheds

Newbury Township is part of two major water basins (the Cuyahoga and Chagrin Rivers) and six watersheds (see Table 4.10, Map 4.10, and Map 4.11).

During periods of precipitation, all of the excess water that is not absorbed into the ground is called runoff. Eventually, the runoff travels through a watershed and into a stream, which in turn flows through downstream watersheds.

Runoff often produces soil erosion and soil sediment that is regarded to be a pollutant. It degrades water quality and can disrupt sensitive ecological conditions. In recognition of the problems associated with soil erosion and water pollution, the Geauga County Board of Commissioners adopted water and soil sediment pollution control regulations in 1979. The regulations are enforced by the Geauga Soil and Water Conservation District (SWCD). The township has adopted zoning regulations concerning stormwater runoff and soil sediment pollution as well.

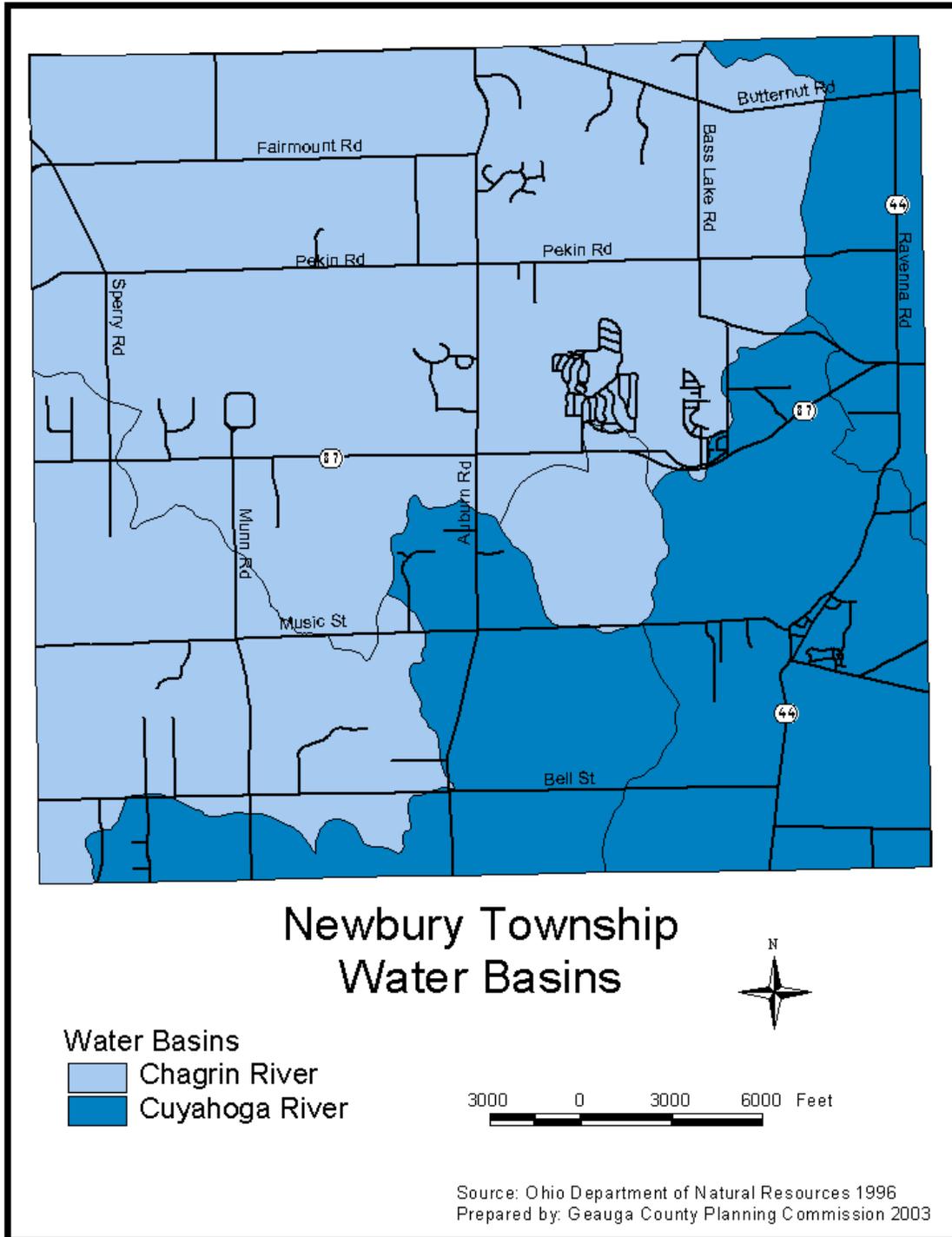
Table 4.10

Water Basins and Watersheds Map Legend
Newbury Township

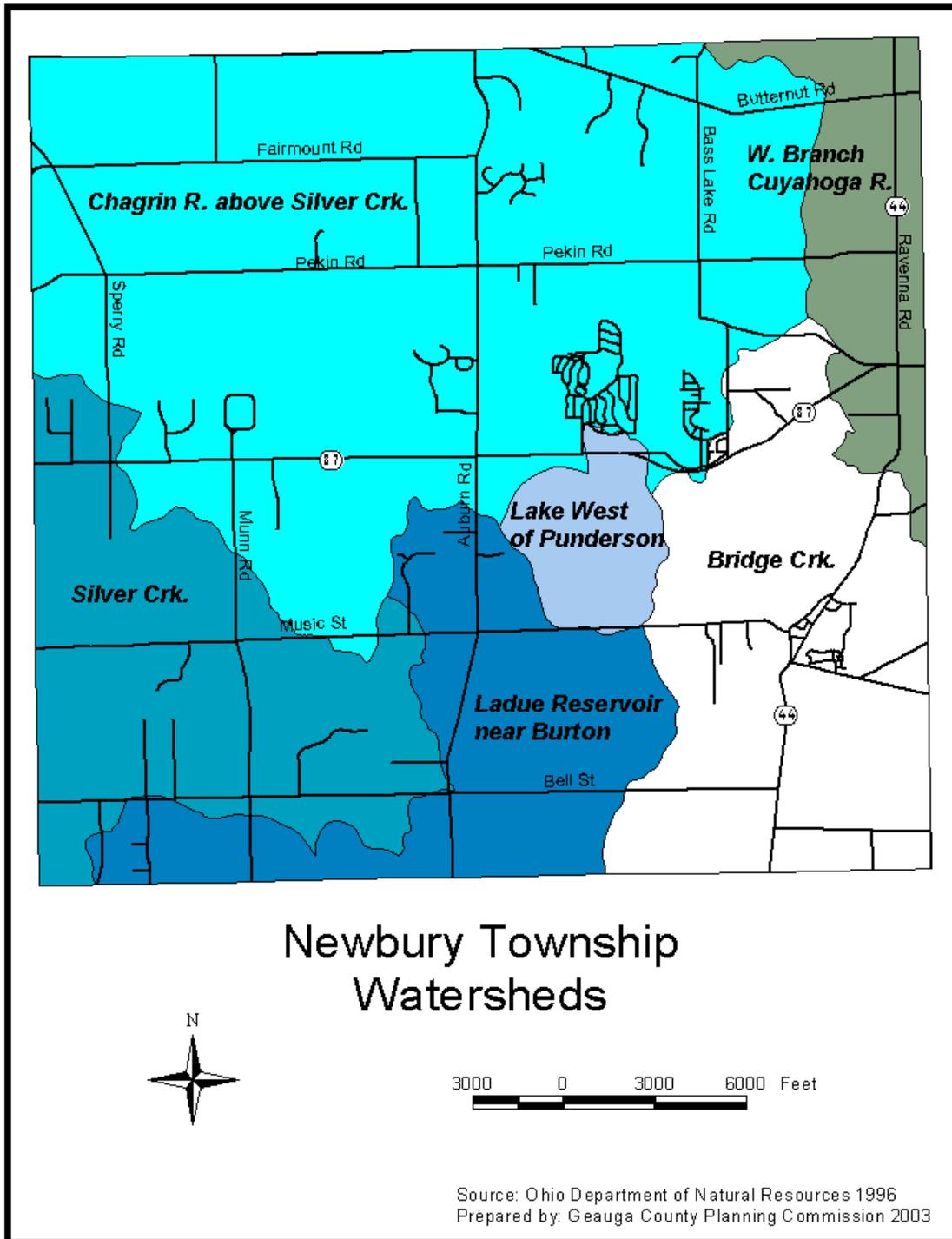
<u>Water Basins</u>	<u>Watersheds</u>	<u>Area (acres)</u>	<u>Percent of Township</u>
Cuyahoga River	West Branch-Cuyahoga River	1,199.93	6.57%
Cuyahoga River	Bridge Creek	3,110.67	17.02%
Cuyahoga River	LaDue Reservoir near Burton	2,179.49	11.93%
Chagrin River	Chagrin River above Silver Creek	8,372.49	45.82%
Chagrin River	Silver Creek	2,837.87	15.53%
Chagrin River	Lake West of Punderson	572.05	3.13%
	Total	18,272.50	100.00%

Source: Ohio Department of Natural Resources, 1979

Map 4.10



Map 4.11

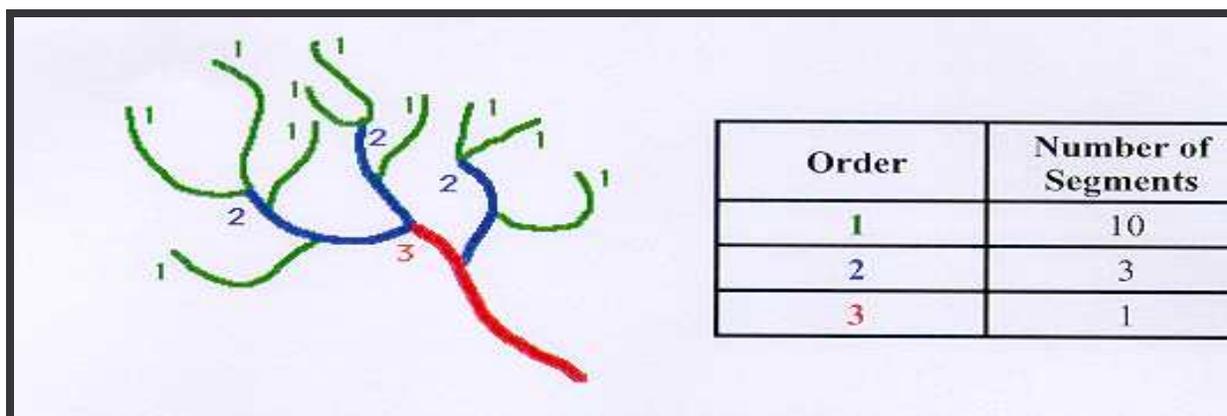


Generalized Hydrography

A hydrography map of the township was created through an analysis of the topography (see Map 4.12). The first attributes to be quantified were the hierarchy of stream segments according to a classification system. In this system, channel segments were ordered numerically from a stream’s headwaters to a point down stream. Numerical ordering begins with the tributaries at the stream’s headwaters being assigned the value “one.” A stream segment that resulted from the joining of two first order segments was given an order of “two.” The second order streams formed third order streams, and so on. An example is shown in the following figure.

Figure 4.1

Stream Segmentation Newbury Township



As shown in Table 4.11, Newbury Township contains a majority of fourth order streams, based on the linear footage of its stream ordering. The first, second, and third order streams are not shown due to the sheer number of stream segments they contain. The stream ordering lengths get smaller as the ordering number gets larger. The larger the segment number, the larger the drainageway. For example, the stream “nine” category includes the drainageways with the most tributaries flowing into them.

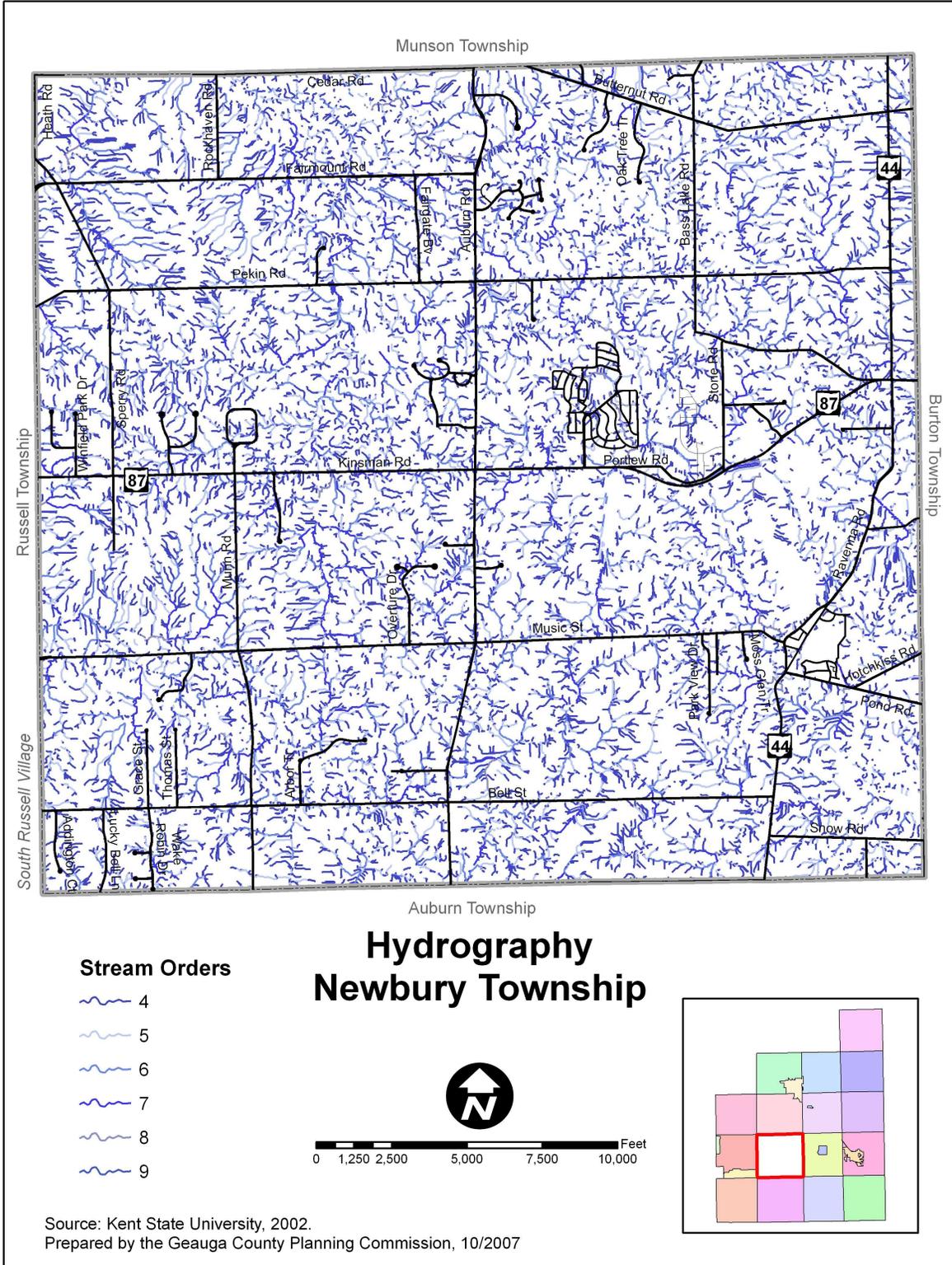
Table 4.11

Hydrography Newbury Township

<u>Stream Orders</u>	<u>Total Linear Feet</u>
4	1,916,500.69 feet
5	894,977.73 feet
6	483,885.26 feet
7	167,504.34 feet
8	30,958.90 feet
9	595.01 feet
Total	3,494,421.92 feet

Source: Kent State University, 2000

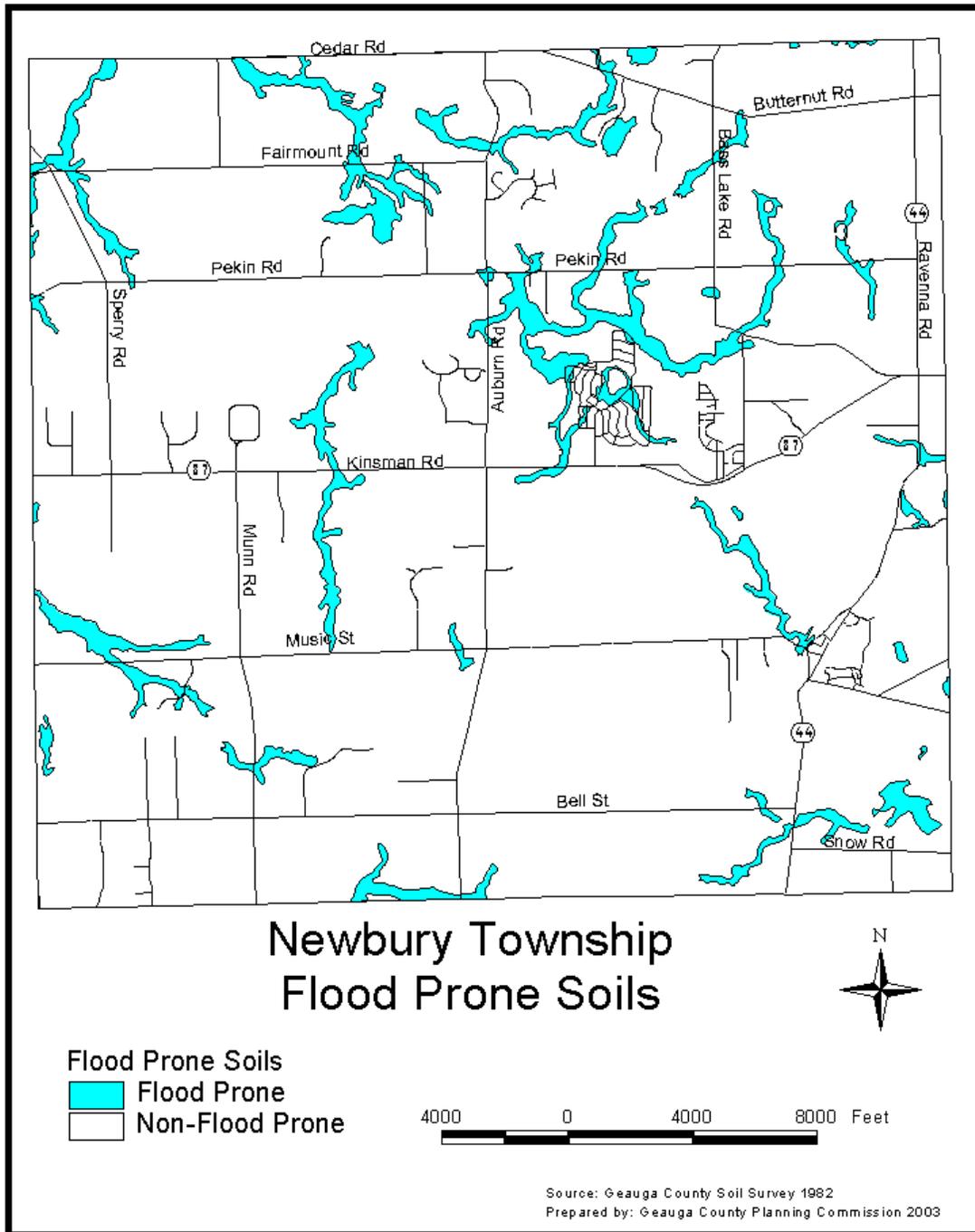
Map 4.12



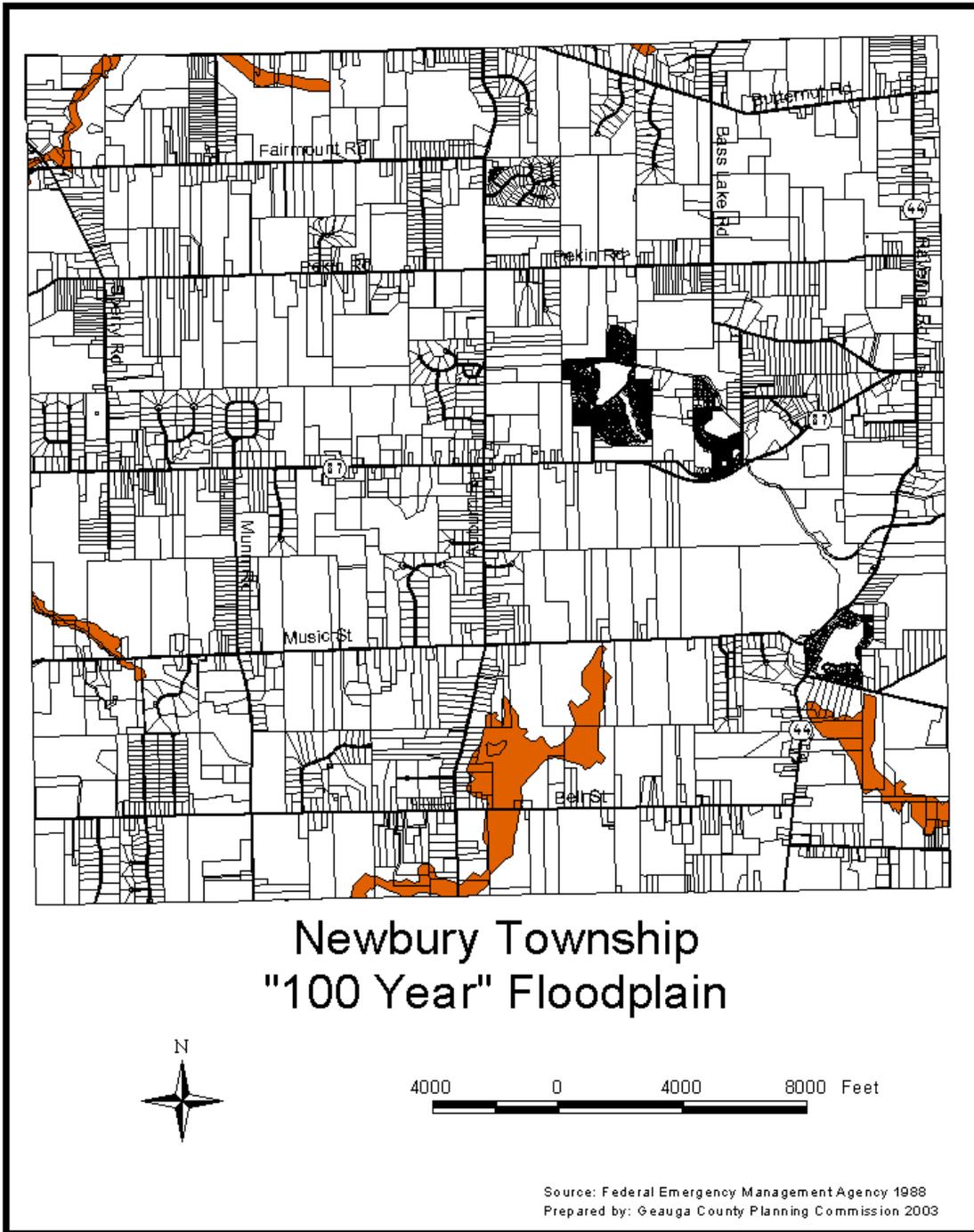
Flood Plains

Within Newbury Township, 1,082.51 acres or 6% of the township are considered flood prone or hydric soils (see Map 4.13). However, 517.38 acres (3%) are designated as a “100 year” flood plain by the Federal Emergency Management Agency or FEMA (see Map 4.14).

Map 4.13



Map 4.14



Generalized Wetlands

The U. S. Department of the Interior, Fish and Wildlife Service (FWS), prepared a wetlands inventory of the township. The generalized map on the following page is meant to represent the areas identified as wetlands through the FWS inventory and the soils map of Newbury Township (see Table 4.12 and Map 4.15).

These areas were delineated by the FWS through the use of stereoscopic analysis of high altitude aerial photographs. Under the FWS classification system, wetlands must have one or more of the following three attributes:

1. Hydrophytic Vegetation: plant life which grows in water, soil or a substrate that is at least periodically deficient in oxygen as a result of excessive water content.
2. Hydric Soils: soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions (absence of free oxygen) in the upper part of the horizon.
3. Wetland Hydrology: permanent or periodic inundation, or soil saturation to the surface, at least seasonally.

Wetlands merit protection due to the array of useful functions they perform. They improve water quality by serving as a natural filtration system. The vegetation traps sediment and other pollutants from the water. Wetlands retain large quantities of water, thereby providing downstream protection during periods of heavy rainfall and, conversely, supplementing streams during periods of dry weather and low flow. Finally, wetlands serve as havens for some rare plant species as well as breeding, nesting, and feeding grounds for a variety of wildlife. The U.S. Army Corps of Engineers is involved with regulation of wetlands under Section 404 of the Clean Water Act as well as the Ohio EPA. Newbury Township has 2,067.38 acres in wetlands, which is 11% of its total area.

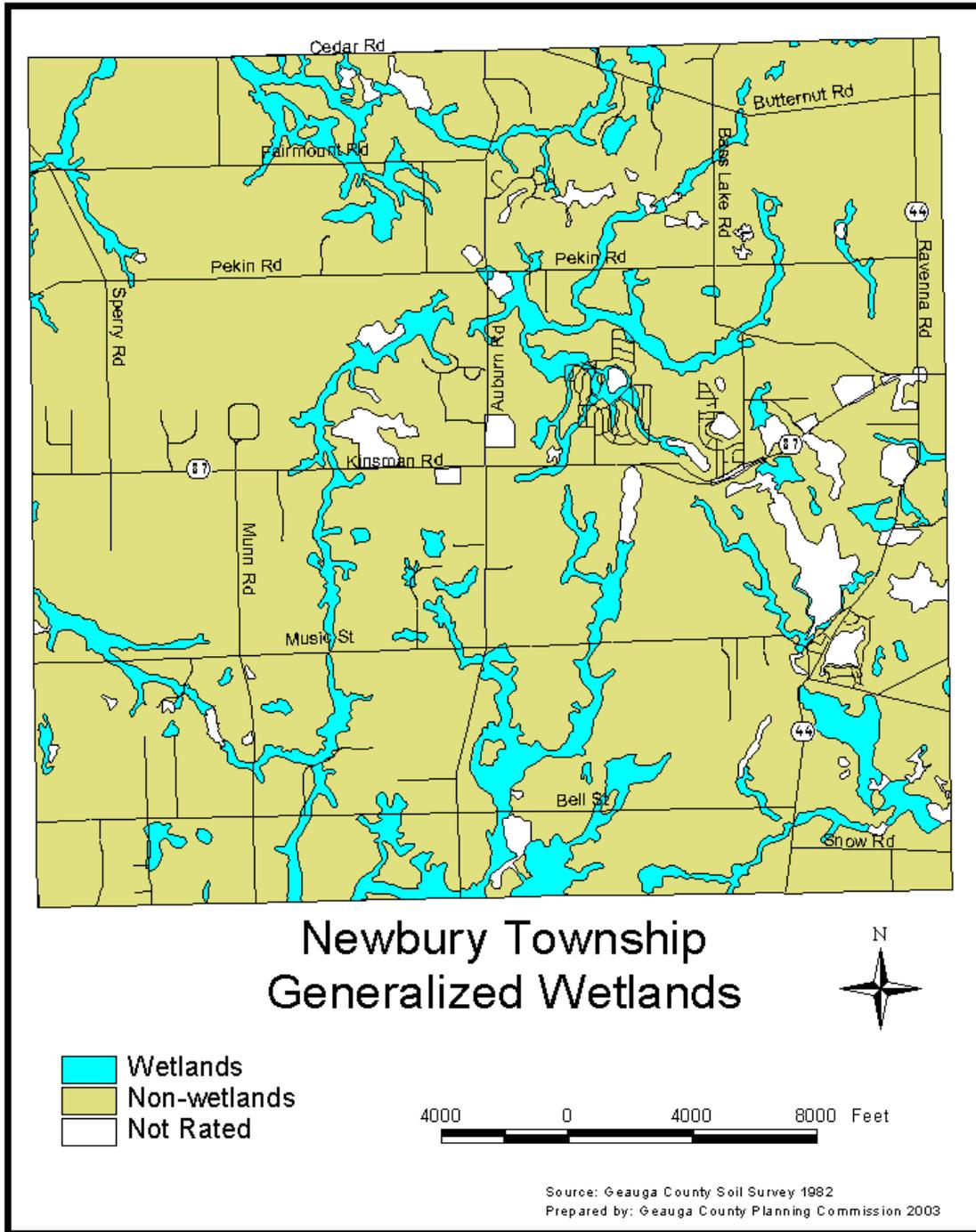
Table 4.12

Generalized Wetlands Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Wetlands	2,067.38	11.31%
Non-Wetlands	15,490.54	84.78%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.15



Drainage

Drainage describes the rapidity and the extent of the removal of water from the soil (see Table 4.13 and Map 4.16). The definitions below relative to drainage are from the Ohio Department of Natural Resources, Division of Lands and Soil:

Very Poorly Drained (VPD) - Water is removed so slowly that the soil is saturated for an extended length of time.

Poorly Drained (PD) - Water is removed from the soil so slowly that it remains wet for long periods of time. The water table is commonly at or near the surface during a considerable part of the year.

Somewhat Poorly Drained (SPD) - Water is removed from the soil so slowly that it remains wet for significant periods, but not all of the time. Somewhat poorly drained soils commonly have a slow permeable layer within the profile, a high water table, additions through seepage, or a combination of these conditions.

Moderately Well Drained (MWD) - Water is removed from the soil somewhat slowly so that the profile is wet for a small but significant part of the time. Moderately well drained soils commonly have a slow permeable layer within or immediately beneath the surface soil and subsoil layers, a relatively high water table, additions of water through seepage, or some combination of these conditions.

Well Drained (WD) - Water is removed from the soil readily, but not rapidly. Well-drained soils are commonly loamy textured, although soils of other texture may also be well drained.

Approximately 41 percent of the township is “somewhat poorly drained.”

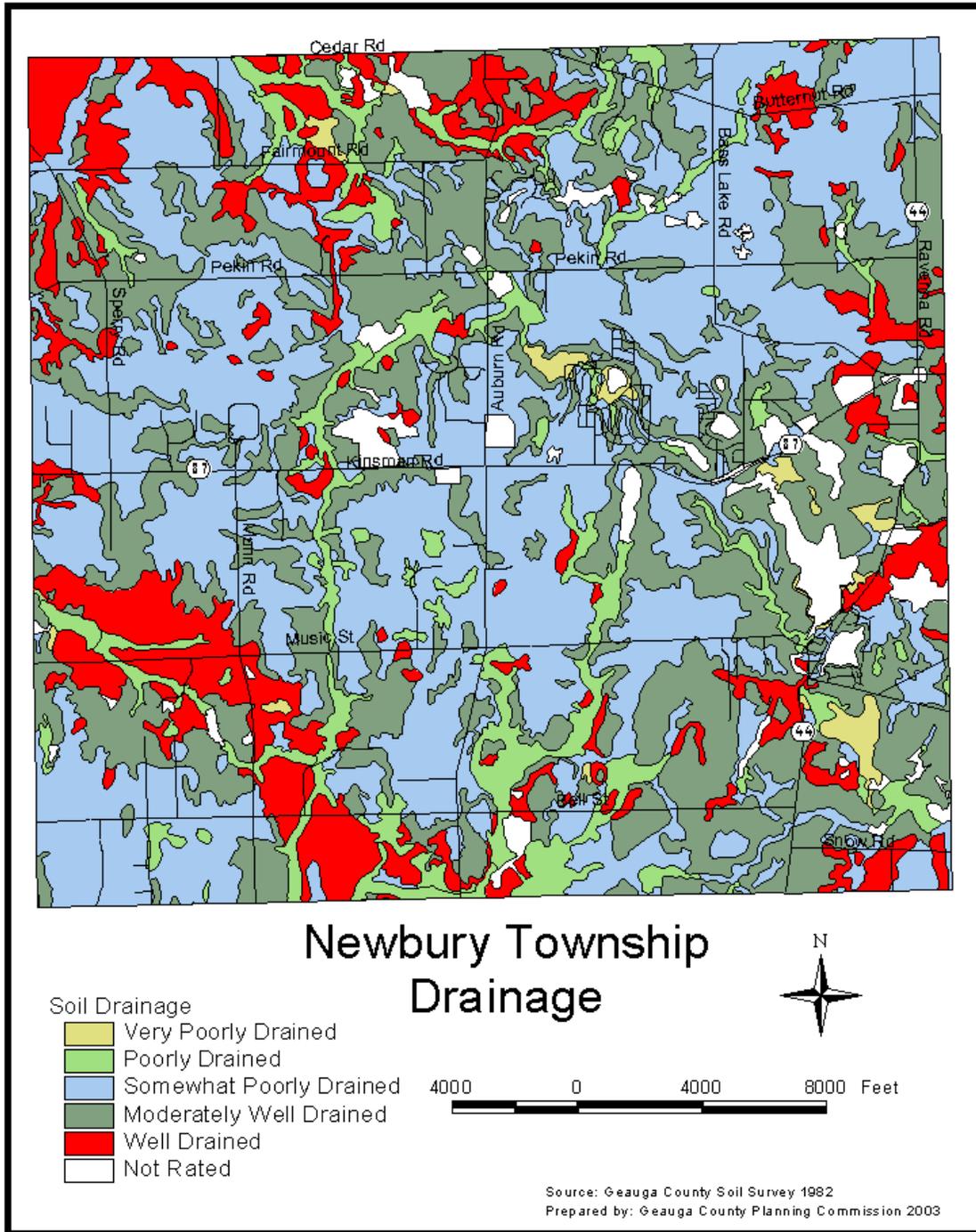
Table 4.13

Drainage Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Very Poorly Drained	198.70	1.09%
Poorly Drained	1,548.22	8.47%
Somewhat Poorly Drained	7,515.53	41.13%
Moderately Well Drained	6,028.88	32.99%
Well Drained	2,266.59	12.41%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.16



Generalized Ground Water Availability

According to the Division of Water, Ohio Department of Natural Resources, about 33% of the township has a ground water potential of 5-15 gallons per minute (gpm) and about 65% of the township area can expect yields greater than 25 gpm (see Table 4.14 and Map 4.17). There are no public central water supply systems in Newbury Township. As a result, the management of ground water resources is a paramount concern in order to maintain quality and quantity. Potential pollution hazards should be minimized. Such hazards may include malfunctioning septic systems, improper brine disposal from oil and gas wells, as well as runoff from inappropriately applied fertilizer, herbicides, pesticides, and animal wastes.

An initial countywide groundwater study was conducted by the United States Geological Survey (USGS) in 1978 which included water level measurements in 77 wells. The study found that most of the groundwater in the county is withdrawn from sandstones of the Pottsville and Cuyahoga Formations. No discernible effects from residential development were evident. The ground water was deemed to be generally of good quality. The groundwater levels measured in wells completed in the various geologic units indicated that the groundwater moves within local flow systems from topographically high recharge areas to topographically low discharge areas. Generally, groundwater flows radially away from the highlands towards adjacent streams and river valleys. A comparison of water levels measured in 1978, 1979, 1980, 1985, and 1986 by USGS indicates that no long-term regional water-level changes have occurred in the county.

The most recent USGS study for Geauga County was completed in 1995. It examined groundwater flow and changes in groundwater levels since 1986 within the major aquifers of the county. Water levels in 219 wells were measured and about 80% of the wells showed changes in the range of plus or minus five feet. The study concluded that an increase in population and groundwater pumpage did not correlate with the decline in water levels. The predominant reason for the decline seemed to be a decrease in recharge from 1986 to 1994. The USGS has initiated a program to create a well network in the county. Recording devices have been placed on selected wells to obtain continuous output of data.

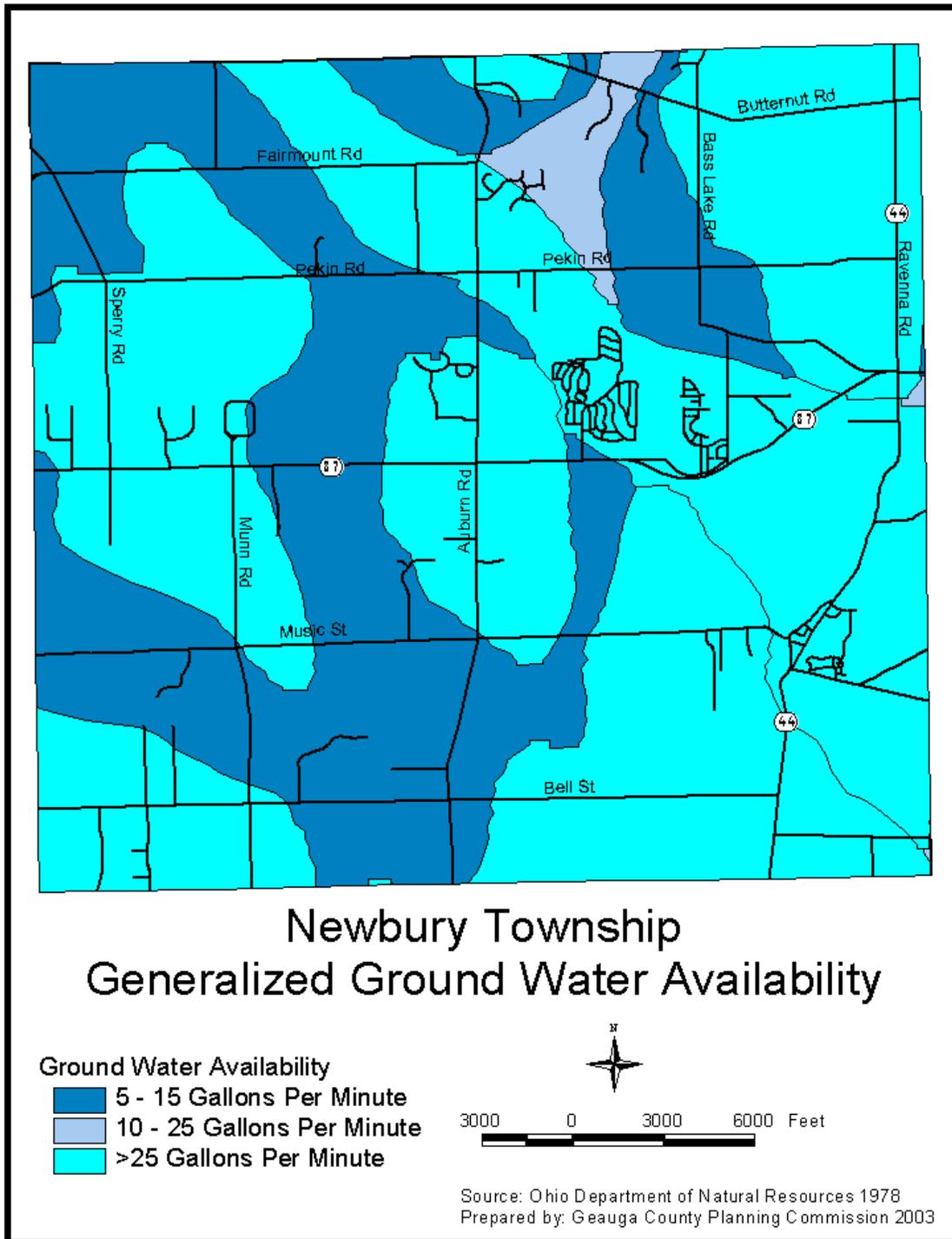
Table 4.14

Generalized Ground Water Availability Map Legend **Newbury Township**

<u>Expected Gallons Per Minute (GPM)</u>	<u>Acres</u>	<u>Percent of Township</u>
5 – 15 gpm	6,003.03	32.85%
10 – 25 gpm	388.46	2.13%
> 25 gpm	11,881.01	65.02%
Total	18,272.50	100.00%

Source: Geauga County Soil Survey, 1982

Map 4.17



Groundwater Pollution Potential

The Division of Water, Ohio Department of Natural Resources has developed a ground water pollution mapping program using the DRASTIC mapping process. This process is comprised of two major elements: designated mapping units called hydrogeologic settings and a rating system for pollution potential.

Hydrogeologic settings form the basis of the system. Inherent within each hydrogeologic setting are the physical characteristics that affect ground water pollution potential. The following factors have been identified during the development of the DRASTIC system: depth to water (D), net recharge (R), aquifer media (A), soil media (S), topography (T), impact of the vadose zone media (I), and hydraulic conductivity of the aquifer (C). These variables form the acronym DRASTIC and are used in a ranking scheme that uses a combination of weights and ratings to establish a numerical value called the ground water pollution potential index (GWPP) that are contained in the document titled Ground Water Pollution Potential of Geauga County Report No. 12 prepared by the Ohio Department of Natural Resources, Division of Water, Ground Water Resources Section (1994). These factors incorporate concepts and mechanisms such as attenuation, retardation and time or distance of travel of a contaminant with respect to the physical characteristics of the hydrogeologic setting. Broad consideration of these factors and mechanisms coupled with existing conditions in a setting provide a basis for determination of the area's relative vulnerability to contamination.

Map 4.18 represents the pollution potential as calculated from the hydrogeologic settings. Generally, a higher number means a greater potential for ground water contamination. The color codes are part of a national color scheme, with warm colors (red, orange, and yellow) representing areas of higher vulnerability and cool colors (greens, blues, and violet) representing areas of lower vulnerability to contamination. The computed ground water pollution index for Newbury Township ranged from 106 to 207 (see GWPP Index). The majority of Newbury Township is in the higher vulnerability range.

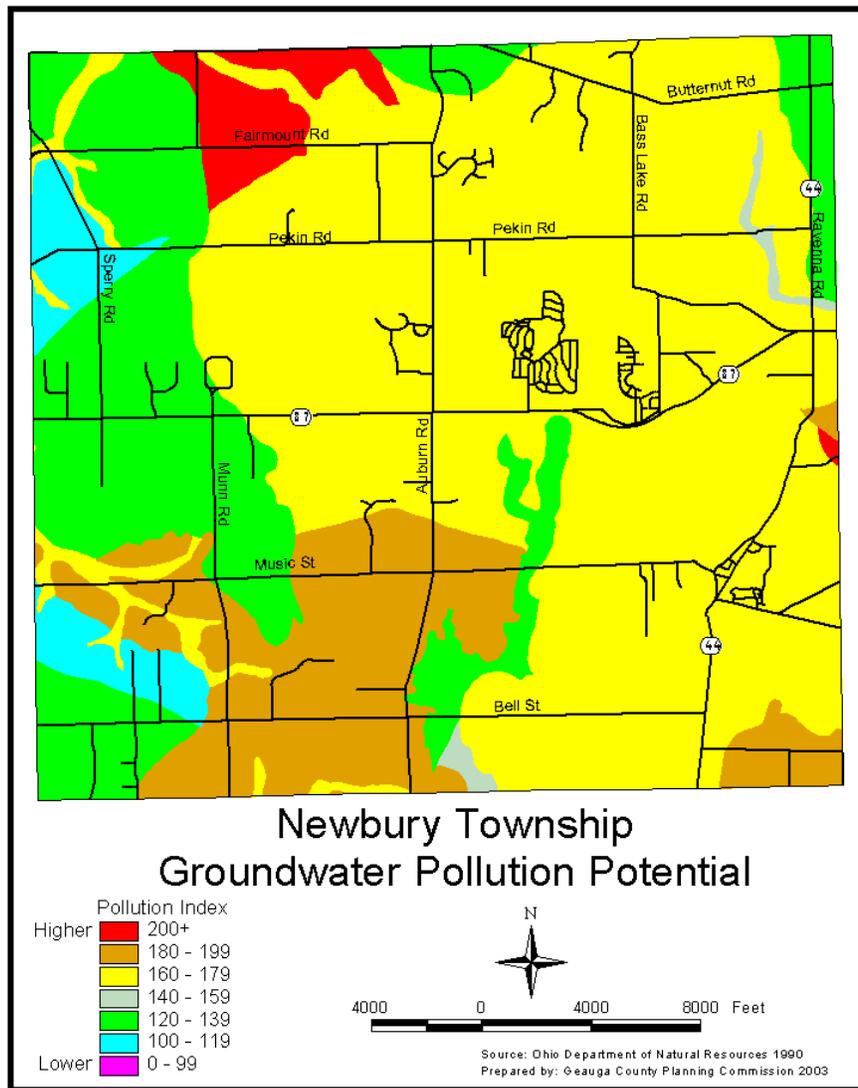
In the development of the DRASTIC system, a set of assumptions must be recognized. The pollution potential evaluation of an area assumes a contaminant with the mobility of water, introduced at the surface, and flushed into the ground water by precipitation. DRASTIC cannot be applied to areas smaller than one hundred acres in size, and is not intended or designed to replace site-specific investigations.

Table 4.15

Ground Water Pollution Potential Map Legend
Newbury Township

<u>Pollution Index</u>	<u>Acres</u>	<u>Percent of Township</u>
200+	503.88	2.75%
180 – 199	2,462.32	13.47%
160 – 179	10,717.89	58.66%
140 – 159	105.16	0.58%
120 – 139	3,851.09	21.08%
100 – 119	632.16	3.46%
0 – 99	0.00	0.00%
Total	18,272.50	100.00%

Map 4.18



Land Capability Analysis

The physical data previously identified and mapped can be rated in relationship to various land uses. This process is known as a land capability analysis.

The following types of land uses were selected for a capability analysis because they represent historical and current development trends in the township. It must be stressed that the capability maps are not site specific and, therefore, are not meant to replace an on-site investigation.

Single Family Dwellings Without Basements: The foundation is assumed to be spread footings of reinforced concrete built on undisturbed soil to a maximum frost penetration depth. The ratings include the soil characteristics affecting strength, settlement, excavation and construction. Soil settlement and strength are influenced by drainage, seasonal water table, flooding, shrink-swell, and potential frost action. Soil properties relative to the ease of excavation and construction are depth to bedrock, flooding, slope, and seasonal water table.

Single Family Dwellings With Basements: The ratings considered the soil characteristics affecting strength, settlement, excavation and construction. Soil strength and settlement are influenced by drainage, seasonal water table, flooding, shrink-swell, and potential frost action. Soil properties relative to the ease of excavation and construction are depth to bedrock, flooding, slope, and seasonal water table.

Commercial and/or Light Industrial Buildings: Represents buildings of less than three stories without basements. The foundation is assumed to be spread footings of reinforced concrete built in undisturbed soil to the maximum frost penetration depth. The ratings include soil attributes affecting soil strength, settlement, excavation, and construction. The variables affecting the amount and ease of excavation are slope, depth to bedrock, and seasonal water table.

In addition, the following items were chosen to be a part of the capability analysis because they are closely related to the above uses.

Septic Tank Absorption Fields: Represents areas in which effluent from a septic tank is distributed into the soil through an approved subsurface system. The soil is evaluated between the depths of 24 to 72 inches. Soil adequacy for on-site sewage disposal is based upon permeability, flooding, seasonal water table, and depth to bedrock, all of which influence the absorption of the effluent. Other variables such as slope and depth to bedrock may affect the installation of an on-site septic system as well.

Local Roads: Represents the use of soils for the construction of improved local roads that have all-weather surfacing (commonly asphalt or concrete) and are expected to carry vehicular traffic year round. Such roads are assumed to have a subgrade of cut and fill soil material; a base of gravel, crushed rock, or stabilized soil material; and a flexible or rigid surface. The variables rated which affect grading and excavation include slope, depth to bedrock, flooding, and a high seasonal water table. Other soil attributes that affect the construction of local roads include: drainage, shrink-swell, frost action, and seasonal water table.

Underground Utilities: Represents the installation of below-grade utilities such as sewer and water pipelines, telephone lines, and electrical lines. The ratings measure the soil attributes affecting corrosion, compactness, and ease of excavation. Compactness and the rate of corrosion are influenced by drainage, shrink-swell, seasonal water table, and corrosion of both steel and concrete. The ease of excavation is influenced by slope, depth to bedrock, and seasonal water table.

Each subsequent land capability map was produced based upon the ratings which accompany it (see Table 4.29). The ratings list the variables used, the parameters, and how each of the characteristics were categorized with regard to the specified land use. The following is a description of each rating category.

- SLIGHT (SL): The rating provided when conditions for the given use are suitable. The degree of limitation is insignificant and can be easily overcome.
- MODERATE (M): The rating provided when conditions for the given use are suitable, yet a degree of limitation exists which may be surmounted with proper engineering, design, and maintenance.
- SEVERE (S): The rating provided when conditions exist which are unfavorable for the specified use. However, such conditions do not preclude the given use. Generally, appropriate engineering, design, and maintenance are required.
- VERY SEVERE (VS): The rating provided when conditions are very environmentally sensitive or unsuitable for the given use due to highly restrictive characteristics. In most instances, it is very difficult and possibly not cost-effective to attempt to overcome these limitations.
- NOT RATED (NR): This designation includes disturbed areas that were not categorized such as quarries and cut and fill.

Table 4.16

Limitations for Dwellings Without Basements
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Drainage	WD, MWD	SPD	PD	VPD
Depth to Seasonal Water Table	> 60"	36 – 60"	12 – 36"	0 – 12"
Shrink-Swell	Low	Moderate	High	N/A
Potential Frost Action	Low	Moderate	High	N/A
Depth to Bedrock	0 – 60"	N/A	N/A	N/A
Slope	0 – 6%	6 – 12%	12 – 18%	> 18%
Flooding	None	N/A	N/A	Frequent

*Results in an automatic “unsuitable” rating

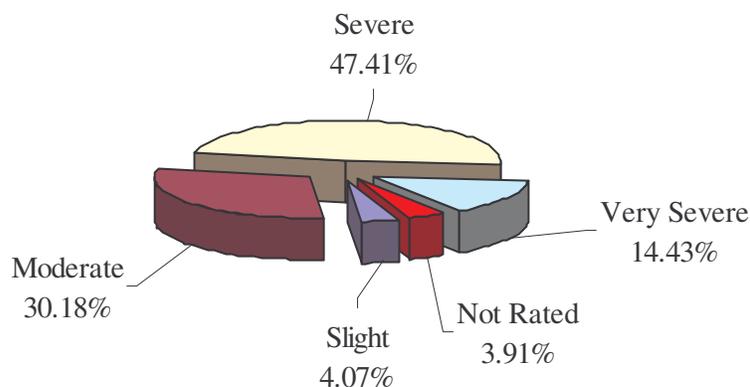
Table 4.17

Capability for Dwellings Without Basements Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	743.77	4.07%
Moderate	5,513.55	30.18%
Severe	8,663.26	47.41%
Very Severe	2,637.34	14.43%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Figure 4.2

Capability for Dwellings Without Basements
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.19

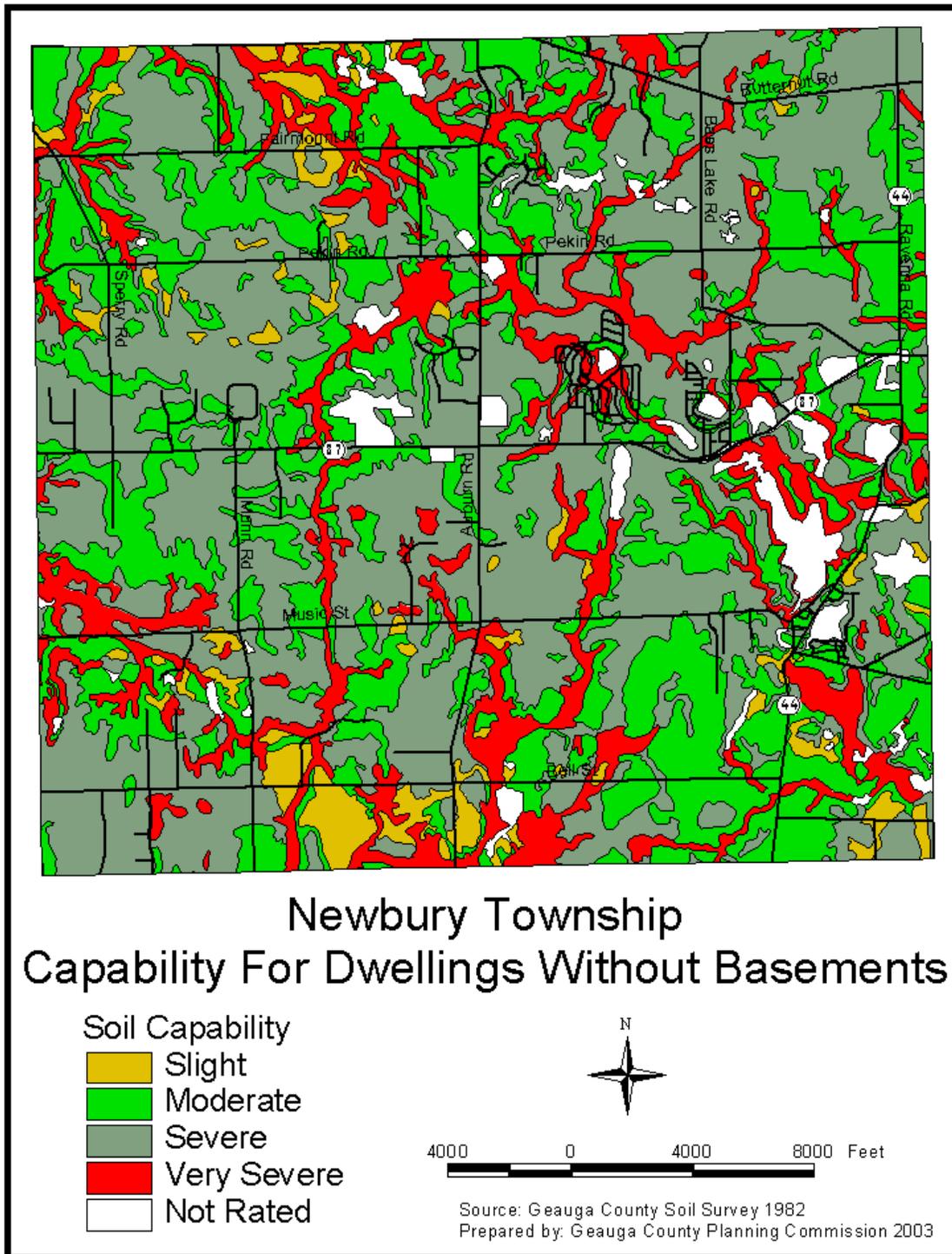


Table 4.18

Limitations for Dwellings With Basements
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Drainage	WD	MWD	SPD, PD	VPD
Depth to Seasonal Water Table	> 60"	36 – 60"	12 – 36"	0 – 12"
Shrink-Swell	Low	Moderate	High	N/A
Potential Frost Action	Low	Moderate	High	N/A
Depth to Bedrock	> 60"	N/A	40 – 60"	0 – 40"
Slope	0 – 6%	6 – 12%	12 – 18%	> 18%
Flooding	None	N/A	N/A	Frequent

*Results in an automatic “unsuitable” rating

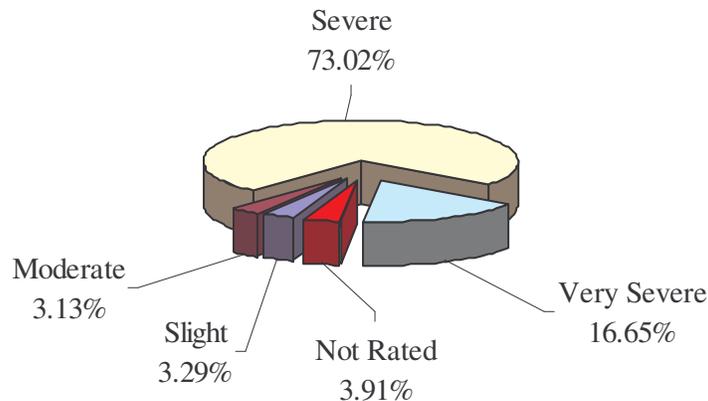
Table 4.19

Capability for Dwellings With Basements Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	600.27	3.29%
Moderate	572.76	3.13%
Severe	13,343.18	73.02%
Very Severe	3,041.71	16.65%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Figure 4.3

Capability for Dwellings With Basements
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.20

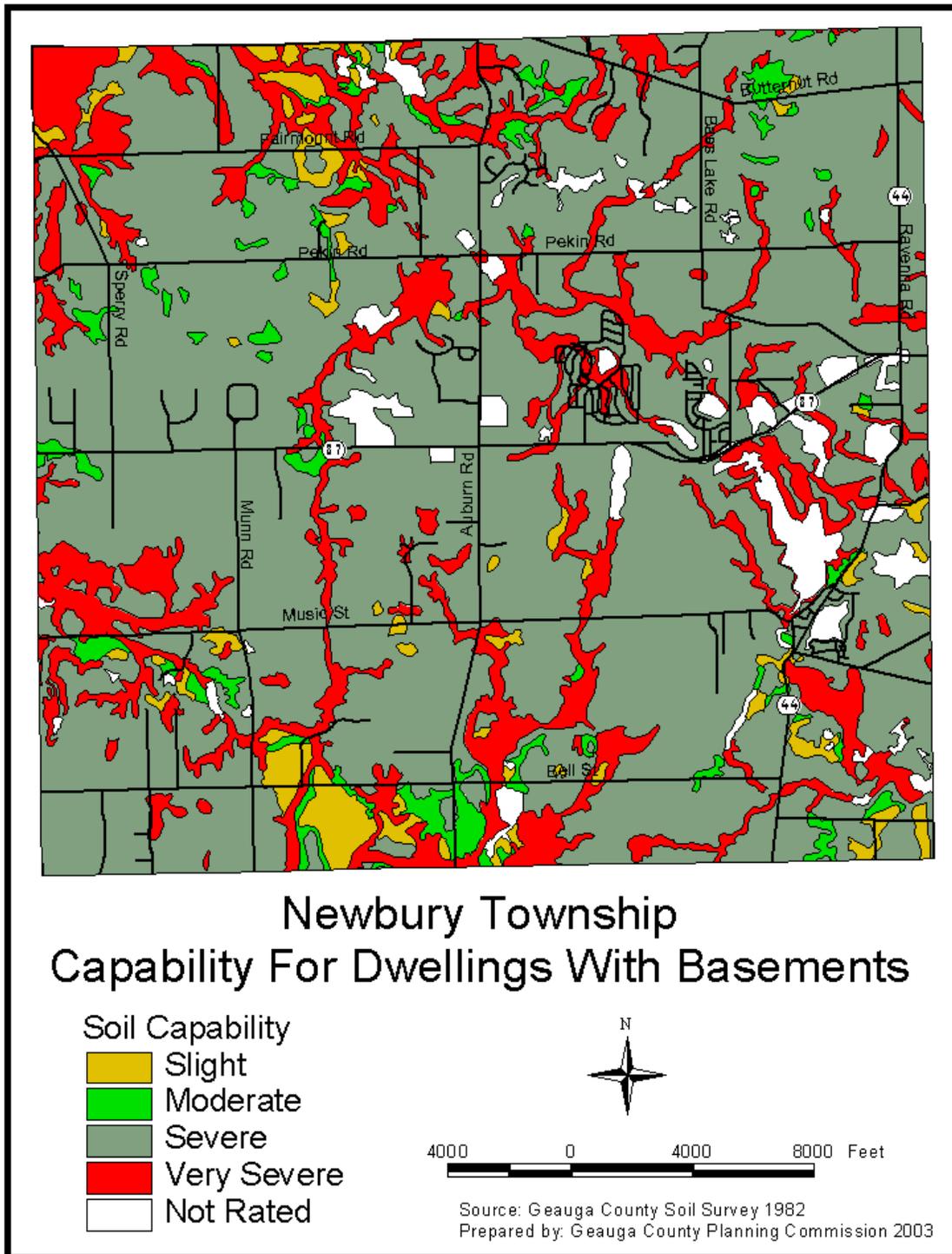


Table 4.20

Limitations for Commercial and/or Light Industrial Buildings
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Drainage	WD, MWD	SPD	PD	VPD
Depth to Seasonal Water Table	> 60"	36 – 60"	12 – 36"	0 – 12"
Shrink-Swell	Low	Moderate	High	N/A
Depth to Bedrock	> 60"	N/A	N/A	N/A
Slope	0 – 6%	N/A	6 – 18%	> 18%

*Results in an automatic “unsuitable” rating

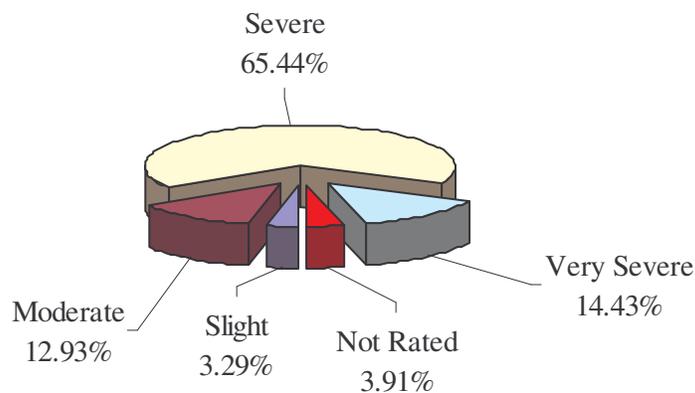
Table 4.21

Capability for Commercial and/or Light Industrial Buildings Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	600.27	3.29%
Moderate	2,363.31	12.93%
Severe	11,957.00	65.44%
Very Severe	2,637.34	14.43%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Figure 4.4

Capability for Commercial and/or Light Industrial Buildings
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.21

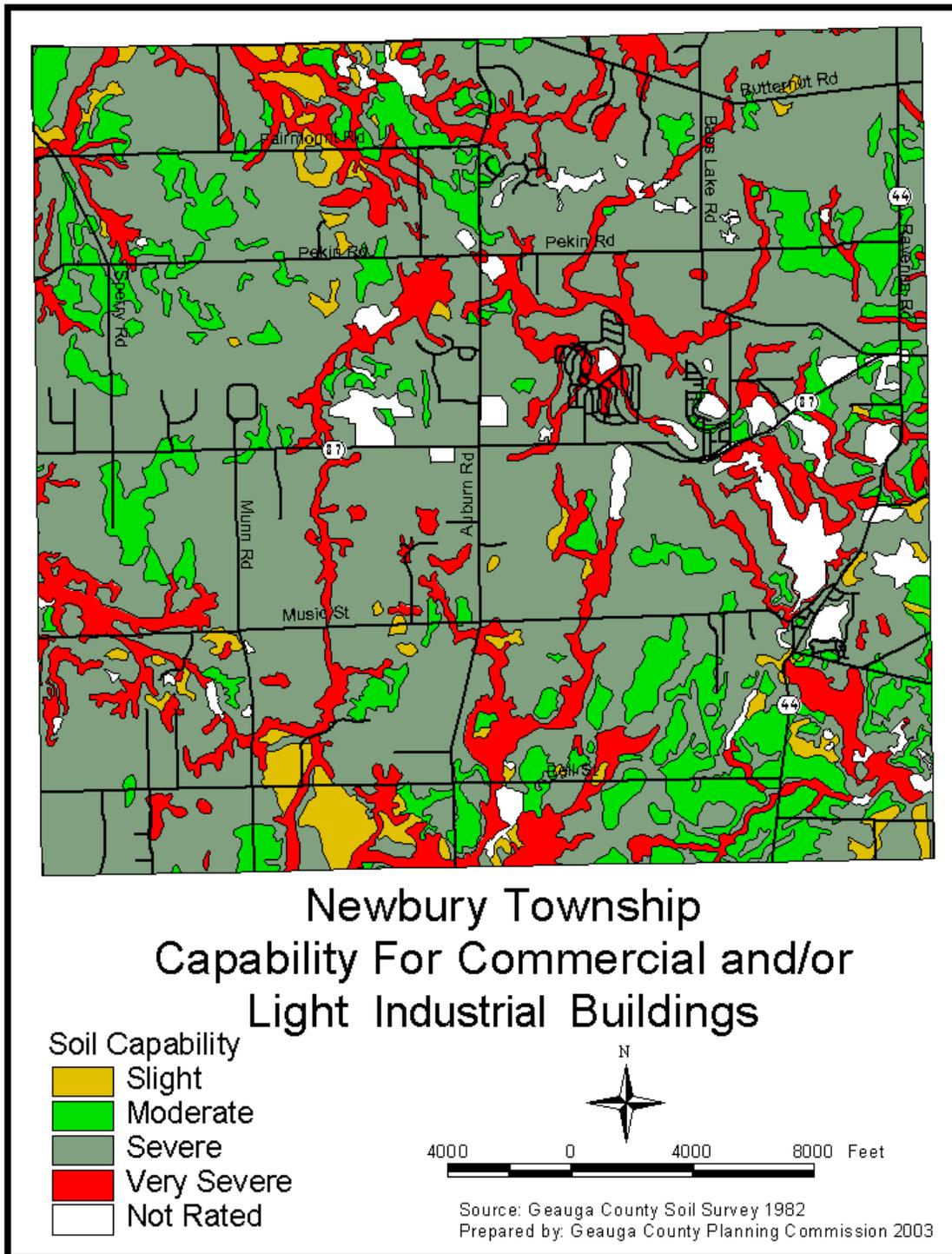


Table 4.22

Limitations for Septic Tank Absorption Fields
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Permeability	MR, R	M	MS, S, VS	N/A
Flooding	None	N/A	N/A	Frequent
Slope	0 – 6%	6 – 12%	12 – 18%	> 18%
Depth to Bedrock	> 60"	N/A	N/A	0 – 60"
Depth to Seasonal Water Table	>60"	36 – 60"	12 – 36"	0 – 12"

*Results in an automatic “unsuitable” rating

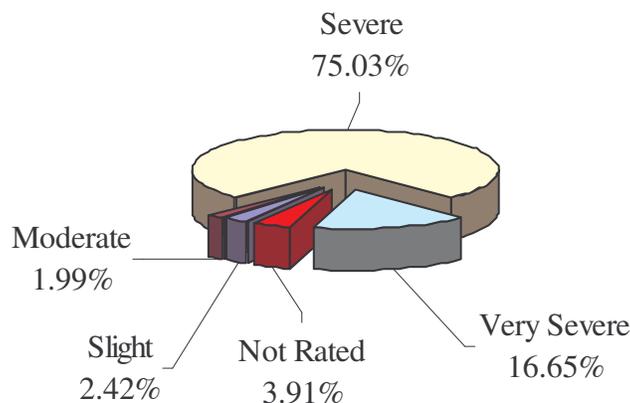
Table 4.23

Capability for Septic Tank Absorption Fields Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	441.30	2.42%
Moderate	363.61	1.99%
Severe	13,711.30	75.03%
Very Severe	3,041.71	16.65%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Figure 4.5

Capability for Septic Tank Absorption Fields
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.22

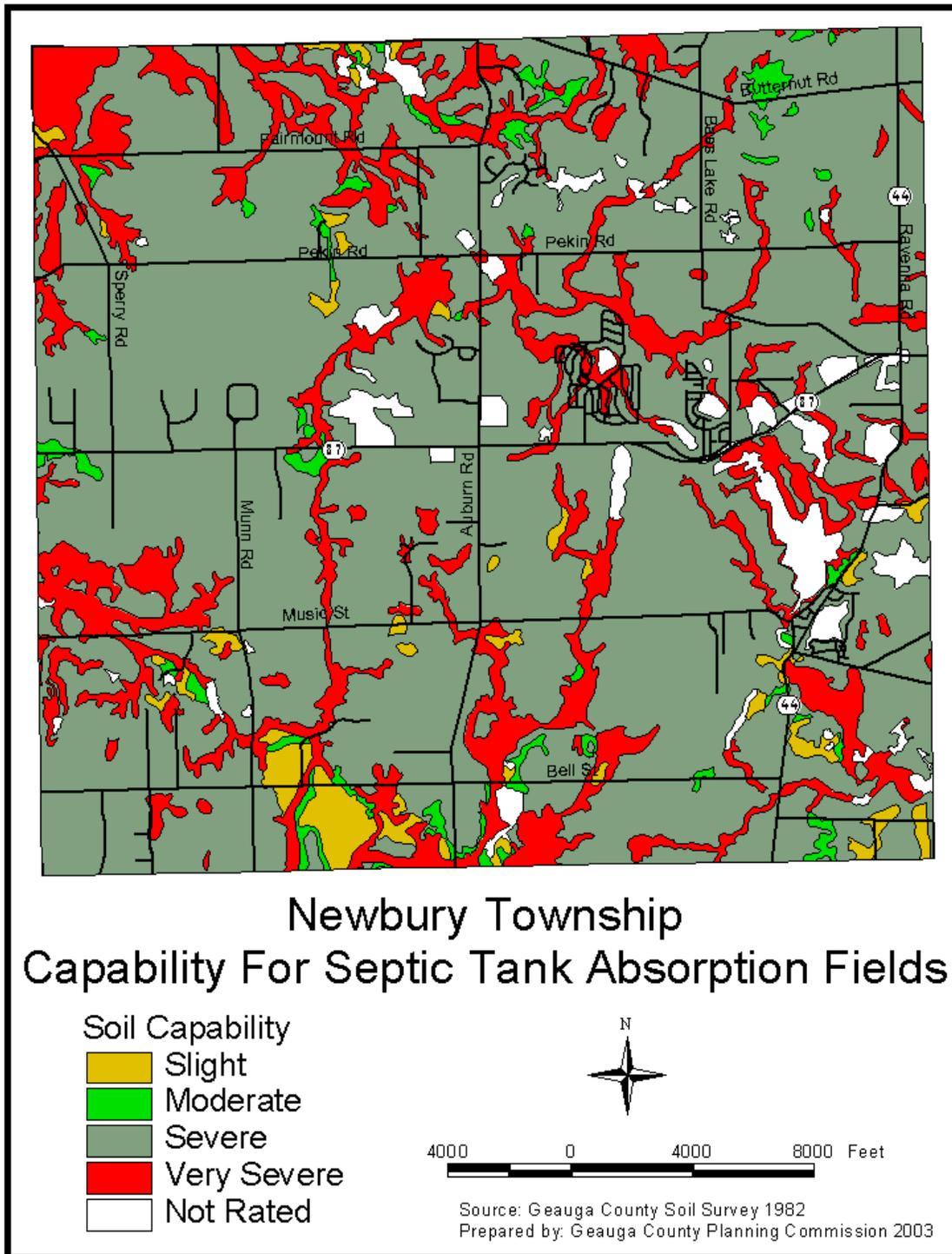


Table 4.24

Limitations for Local Roads
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Drainage	WD, MWD	SPD	PD	VPD
Flooding	None	N/A	N/A	Frequent
Slope	0 – 6%	6 – 12%	12 – 18%	> 18%
Depth to Bedrock	>60"	0 – 40"	N/A	N/A
Shrink-Swell	Low	Moderate	High	N/A
Potential Frost Action	Low	Moderate	High	N/A
Depth to Seasonal Water Table	> 60"	36 – 60"	12 – 36"	0 – 12"

*Results in an automatic “unsuitable” rating

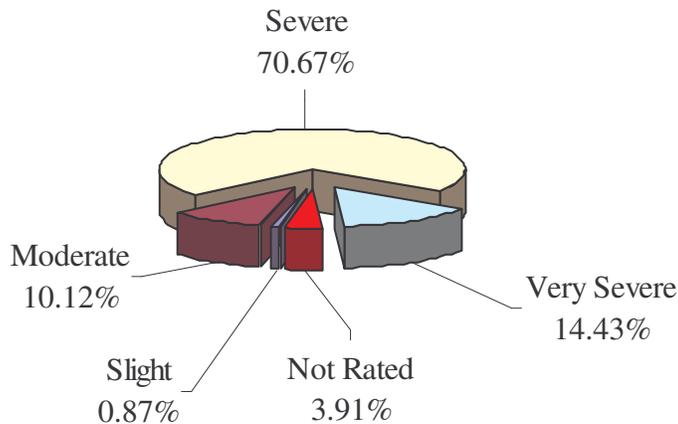
Table 4.25

Capability for Local Roads Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	158.97	0.87%
Moderate	1,848.52	10.12%
Severe	12,913.96	70.67%
Very Severe	2,636.47	14.43%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

Figure 4.6

Capability for Local Roads
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.23

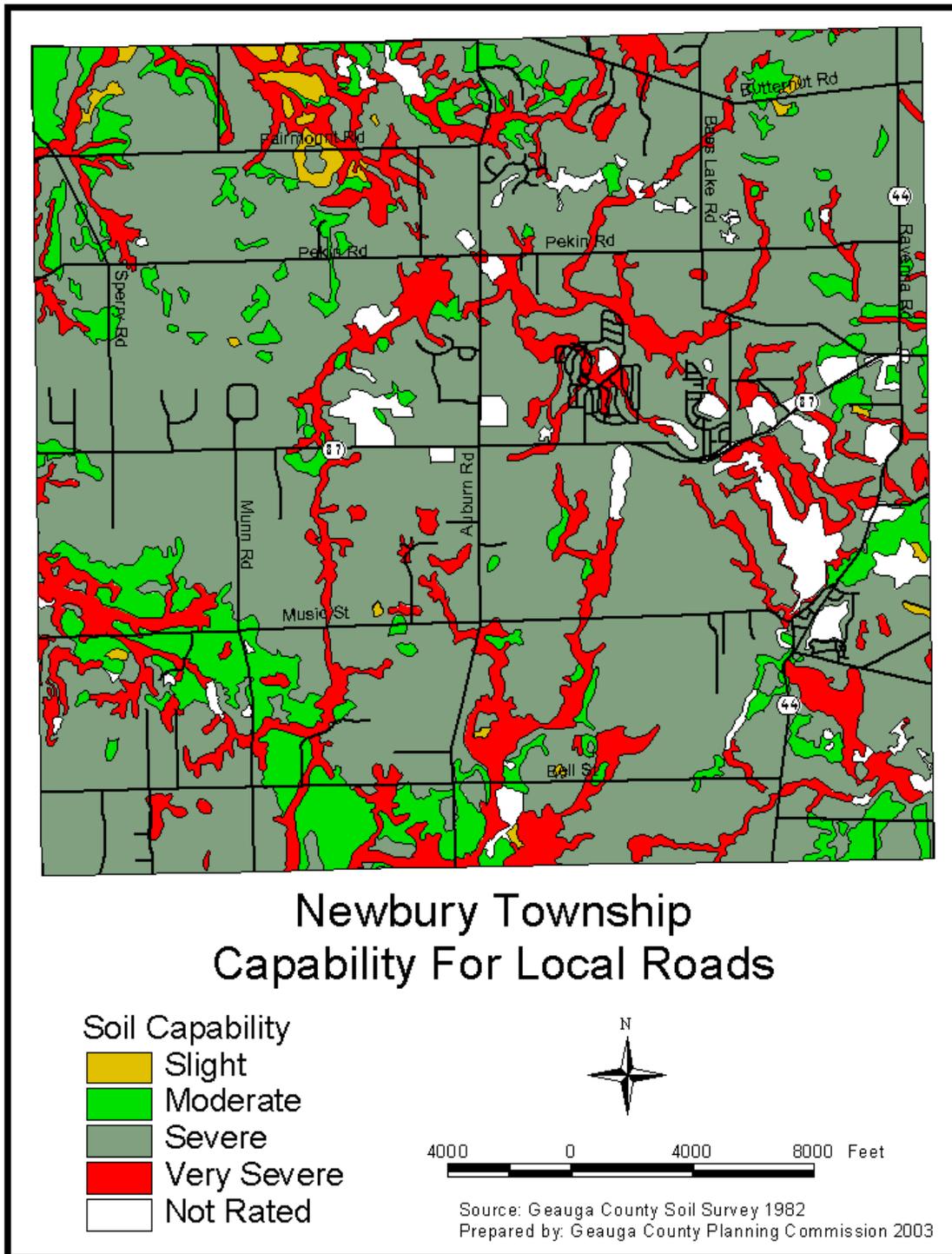


Table 4.26

Limitations for Underground Utilities
Newbury Township

<u>Variables</u>	<u>Slight</u>	<u>Moderate</u>	<u>Severe</u>	<u>Very Severe*</u>
Drainage	WD	MWD	SPD, PD	VPD
Depth to Seasonal Water Table	> 60"	36 – 60"	12 – 36"	0 – 12"
Shrink-Swell	Low	Moderate	High	N/A
Depth to Bedrock	> 60"	N/A	40 – 60"	0 – 40"
Slope	0 – 6%	6 – 12%	12 – 18%	> 18%

*Results in an automatic “unsuitable” rating

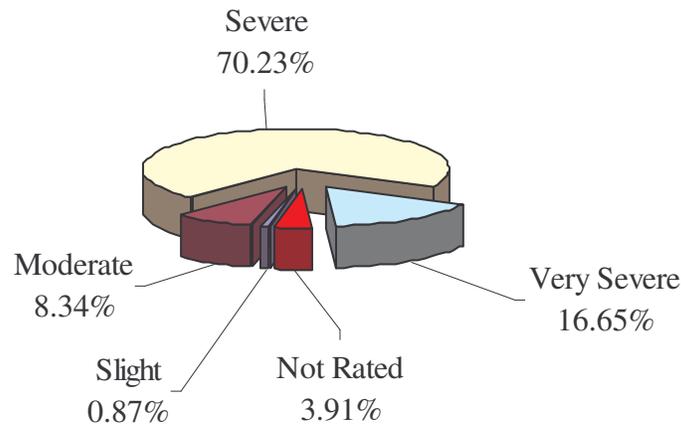
Table 4.27

Capability for Underground Utilities Map Legend
Newbury Township

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	158.97	0.87%
Moderate	1,523.33	8.34%
Severe	12,833.91	70.23%
Very Severe	3,041.71	16.65%
Not Rated	714.58	3.91%
Total	18,272.50	100.00%

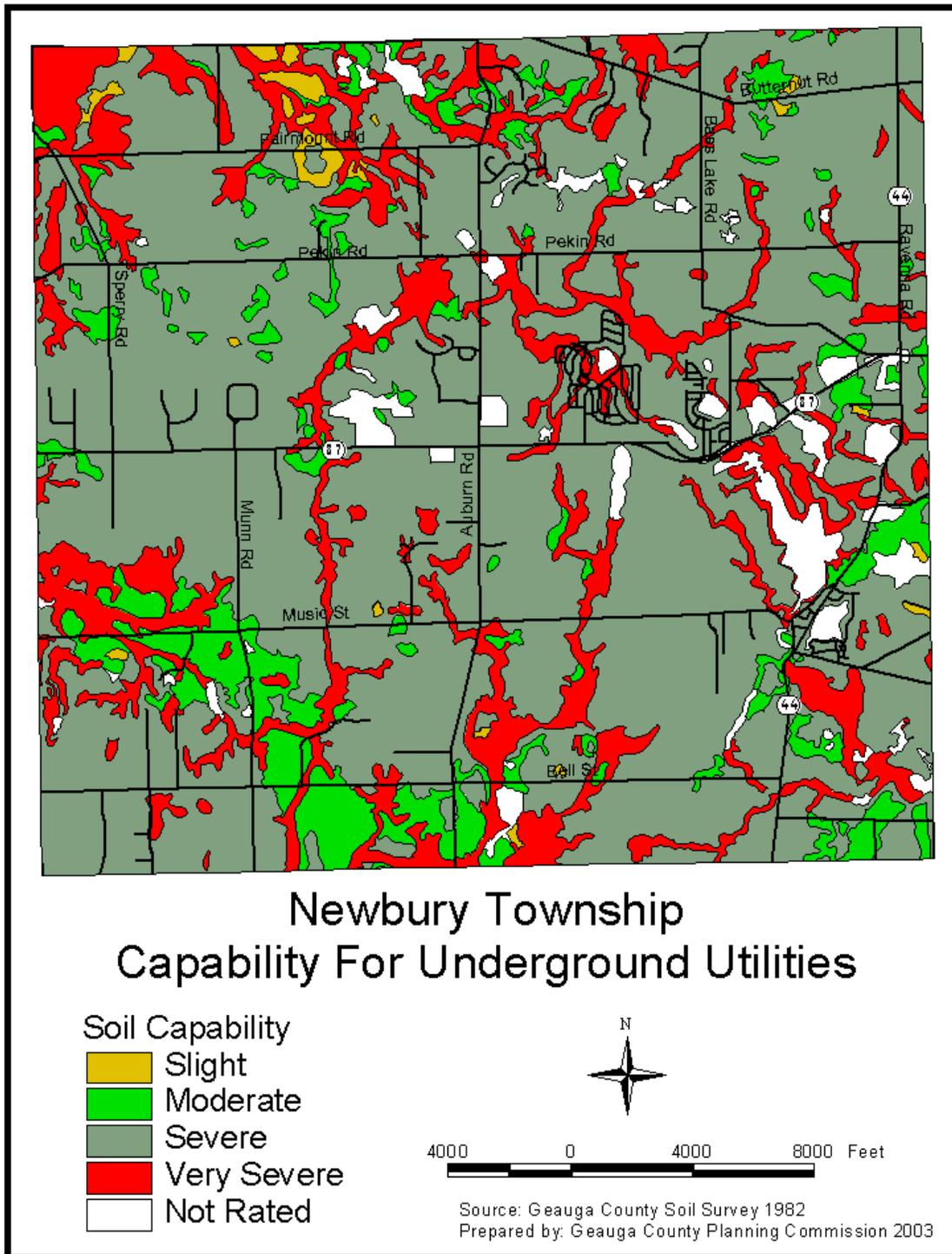
Figure 4.7

Capability for Underground Utilities
Soil Rating Percentages
Newbury Township



Source: Geauga County Soil Survey, 1982

Map 4.24



Composite Capability

The following composite capability map provides an overview of the township. The map reflects all of the physical features that were discussed earlier in this portion of the plan (see Map 4.26).

A rating system (see Table 4.29) has also been devised. Generally, the areas rated “slight” have the best potential to support development; and, cover a very small percentage of the township. The next category is “moderate.” Areas rated “moderate” have a fair potential to support development and are limited and scattered throughout the community. The “severe” category encompasses 67% of the township (see Table 4.28). Although there are more limitations relative to this category, it does not preclude development provided appropriate engineering, design, and maintenance mechanisms are employed. The rating “very severe” is reserved for those areas with environmentally sensitive conditions. About 17% of the township is in this rating. The “not rated” category applies to disturbed areas, lakes, and ponds.

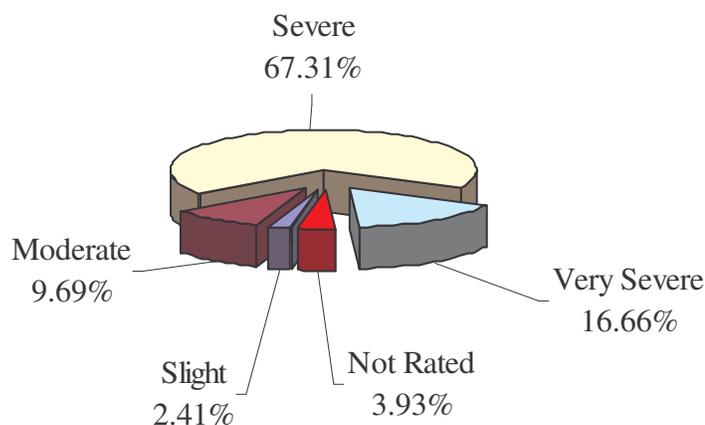
Table 4.28

Composite Capability Map Legend **Newbury Township**

<u>Rating</u>	<u>Acres</u>	<u>Percent of Township</u>
Slight	441.32	2.41%
Moderate	1,770.28	9.69%
Severe	12,305.69	67.31%
Very Severe	3,040.60	16.66%
Not Rated	714.61	3.93%
Total	18,272.50	100.00%

Figure 4.8

Composite Capability **Soil Rating Percentages** **Newbury Township**



Source: Geauga County Soil Survey, 1982

Map 4.25

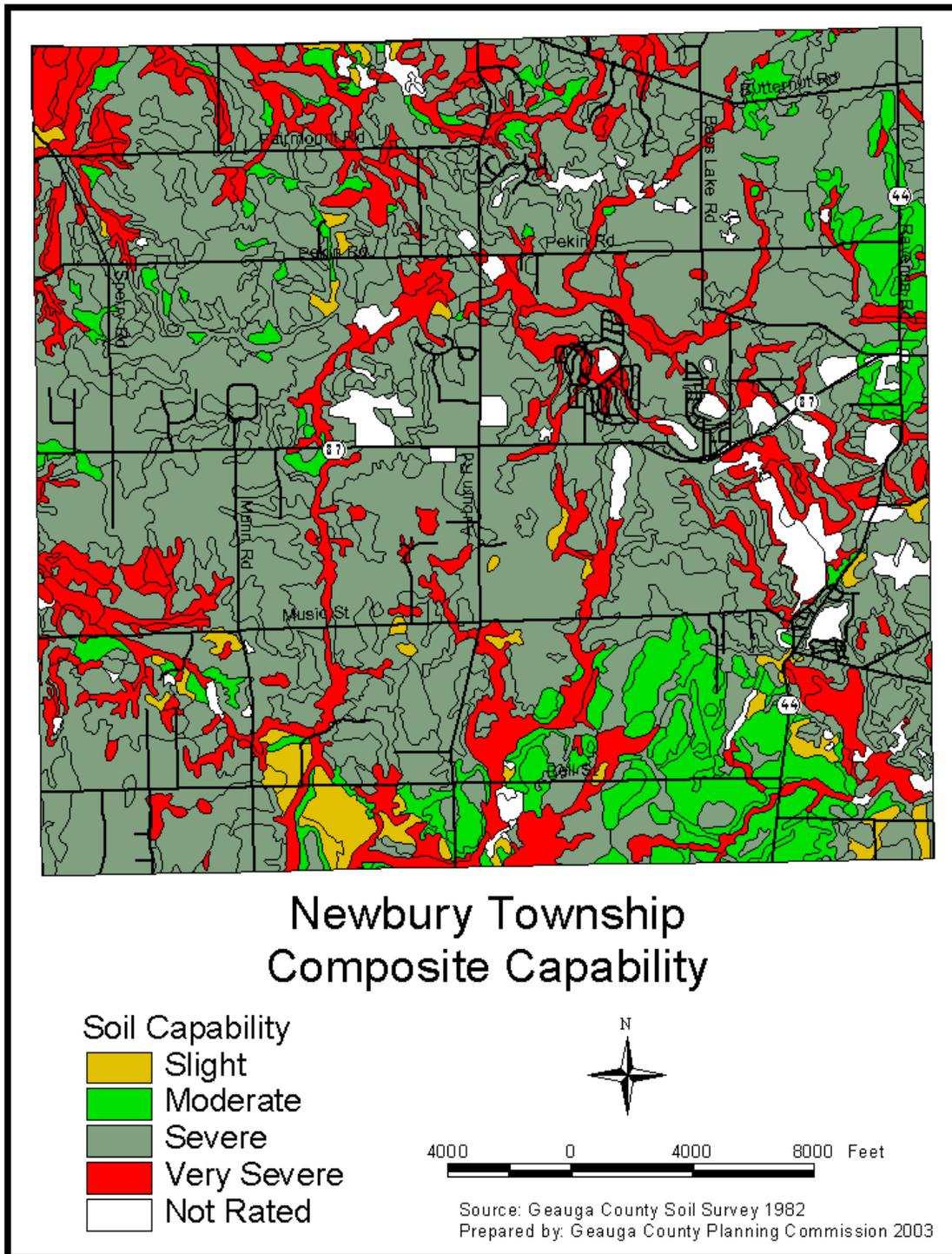


Table 4.29
Summary of Soil Capability Ratings
Newbury Township

<u>Soils</u>	<u>Septic Tank</u>	<u>Dwellings With Basements</u>	<u>Dwellings Without Basements</u>	<u>Commercial/ Light Industry</u>	<u>Local Roads</u>	<u>Underground Utilities</u>
Bogart (Bg B)	Severe	Severe	Moderate	Moderate	Severe	Severe
Canadice (Ca)	Very severe	Very severe	Very Severe	Very Severe	Very severe	Very Severe
Canfield (Cd B)	Severe	Severe	Moderate	Moderate	Severe	Severe
Canfield (Cd C)	Severe	Severe	Moderate	Severe	Severe	Severe
Carlisle (Cf)	Very severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Chili (Cn A, B)	Slight	Slight	Slight	Slight	Moderate	Moderate
Chili (Cn C)	Moderate	Moderate	Moderate	Severe	Moderate	Moderate
Chili (Co D)	Severe	Severe	Severe	Severe	Moderate	Moderate
Chili-Oshtemo (Cy D)	Severe	Severe	Severe	Severe	Moderate	Moderate
Chili-Oshtemo (Cy F)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Damascus (Da)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Ellsworth (Eh B)	Severe	Severe	Moderate	Moderate	Severe	Severe
Ellsworth (Eh C)	Severe	Severe	Moderate	Severe	Severe	Severe
Ellsworth (Eh D)	Severe	Severe	Severe	Severe	Severe	Severe
Ellsworth (Eh E, F)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Fitchville (Fc A, B)	Severe	Severe	Severe	Severe	Severe	Severe
Glenford (Gf B)	Severe	Severe	Moderate	Moderate	Severe	Severe
Glenford (Gf C)	Severe	Severe	Moderate	Severe	Severe	Severe
Haskins (Hs A, B)	Severe	Severe	Severe	Severe	Severe	Severe
Holly (Ho)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Jimtown (Jt A)	Severe	Severe	Severe	Severe	Severe	Severe
Lordstown (Lr B)	Very Severe	Very Severe	Moderate	Moderate	Moderate	Very Severe
Lordstown (Lr C)	Very Severe	Very Severe	Moderate	Severe	Moderate	Very Severe
Lordstown (Lx D)	Very Severe	Very Severe	Severe	Severe	Severe	Very Severe
Lordstown (Lx F)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Loudonville (Ly B)	Very Severe	Very Severe	Moderate	Moderate	Moderate	Very Severe
Loudonville (Ly C)	Very Severe	Very Severe	Moderate	Severe	Moderate	Very Severe
Mahoning (Mg A, B)	Severe	Severe	Severe	Severe	Severe	Severe
Orrville (Or)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Oshtemo (Os B)	Severe	Slight	Slight	Slight	Slight	Slight
Oshtemo (Os C)	Severe	Moderate	Severe	Moderate	Moderate	Moderate
Pits, Gravel (Pg)	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
Ravenna (Re A, B)	Severe	Severe	Severe	Severe	Severe	Severe
Rawson (Rm B)	Severe	Moderate	Slight	Moderate	Moderate	Moderate
Rittman (Rs B)	Severe	Severe	Moderate	Moderate	Severe	Severe
Rittman (Rs C)	Severe	Severe	Moderate	Severe	Severe	Severe
Sebring (Sb)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Sheffield (Sf)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Tioga (Tg)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Udorthents (Ud)	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
Urban Land (Ur)	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated	Not Rated
Wadsworth (Wb A, B)	Severe	Severe	Severe	Severe	Severe	Severe
Wallkill (Wc)	Very Severe	Very Severe	Very Severe	Very Severe	Very severe	Very Severe
Wooster (Wu D)	Severe	Severe	Severe	Severe	Severe	Severe

Source: Gaugau County Soil Survey, 1982

CHAPTER 5

TOWNSHIP QUESTIONNAIRE

Township Questionnaire Results

A basic element of the land use planning process is the consideration and evaluation of the opinions and attitudes expressed by the residents of the affected community. Toward that end, the Newbury Township Trustees and Zoning Commission devised a questionnaire that documented the concerns of the residents with respect to various planning related issues.

The survey contained questions in five separate categories: demographic and land use, recreation, fire and police, tax issues, and the school. The questionnaires were mailed out in April 1999. Approximately eight weeks were given for residents to respond. A notice was placed in the “Knightline” announcing the distribution of the survey and its purpose. A total of 2,448 survey forms were mailed and 846 were returned. This represented a response rate of 34.5%, which is acceptable for a mail survey. The completed questionnaires were tabulated in a joint venture that included the Newbury Township Trustees, the Zoning Commission, the Board of Zoning Appeals, the Recreation Board, and the Newbury Board of Education.

1999 Survey Results

The following represents the survey results.

1. How long have you resided in Newbury Township?

A) 0-5 years	175
B) 6-10 years	109
C) 11-20 years	171
D) Over 20 years	392

2. Where do the wage earners in this household work?

A) Geauga	401
B) Cuyahoga	387
C) Lake	94
D) Portage	25
E) Summit	18
F) Other	138

3. Are you a homeowner or a renter?

A) Own	798
B) Rent	33

4. On what size lot is your home situated?

- | | |
|---------------------|-----|
| A) Less than 1 acre | 129 |
| B) 1 – 1.9 acres | 153 |
| C) 2 – 3.9 acres | 326 |
| D) 4 – 8 acres | 118 |
| E) Over 8 acres | 119 |

5. In your opinion, what is the best lot size for residential development?

- | | |
|---------------------|-----|
| A) Less than 1 acre | 16 |
| B) 1 acre | 69 |
| C) 2 acres | 195 |
| D) 3 acres | 338 |
| E) 4 acres | 30 |
| F) 5 acres | 151 |
| G) More than 5 | 39 |
| H) Other | 21 |

6. What changes would you like to see in your community? (Circle all that apply)

- | | |
|---|-----|
| A) Provision of central water and sewer services | 119 |
| B) More residential development | 91 |
| C) Closer shopping opportunities | 220 |
| D) Closer employment opportunities | 108 |
| E) More open space; parks, outdoor recreation, scenic areas, etc. | 446 |
| F) Preservation of farms | 520 |
| G) More rigorous zoning enforcement | 375 |
| H) Development of town center | 300 |
| I) Establish a historic district | 149 |
| J) Other | 59 |

7. Which characteristics of Newbury do you find most attractive? (Circle all that apply)

- | | |
|------------------------------|-----|
| A) Nearby farming activities | 457 |
| B) Areas of open land | 611 |
| C) Use of water wells | 344 |
| D) Distance between homes | 598 |
| E) Wooded areas | 735 |
| F) Other | 50 |

8. Do you feel that Newbury needs to hire an independent professional planner to develop a land use plan for the township?

- | | |
|--------|-----|
| A) Yes | 285 |
| B) No | 504 |

9. What additional types of housing opportunities, besides single family homes, should be permitted in the township? (Choose all that apply)

- | | |
|---|-----|
| A) Housing for elderly | 422 |
| B) Rental apartments | 106 |
| C) Condominiums | 194 |
| D) Townhouses | 144 |
| E) Single family homes with one attached in-law suite | 433 |
| F) Other | 52 |

10. Rank in importance the types of development that you would like to see in Newbury. (1, 2, 3, 4, 5) One being the most important and five being the least important.

- | | |
|------------------------|---|
| A) Commercial | 4 |
| B) Residential | 1 |
| C) Industrial | 5 |
| D) Professional office | 3 |
| E) Agriculture | 2 |

11. Zoning and other land use regulations have many objectives. Please rate the following items according to importance.

- | 1) Very Important | 2) Somewhat Important | 3) Not Important |
|--|-----------------------|------------------|
| A) Protect property value | | 1 |
| B) Protect character of community | | 2 |
| C) Protect open space and recreational areas | | 2 |
| D) Protect quality of environment | | 1 |
| E) Enhance tax base of township | | 3 |
| F) To control pace of development | | 3 |
| G) To control types of development | | 2 |
| H) To maintain a rural atmosphere | | 2 |

RECREATION BOARD

1. Do you or family members pay for recreational activities outside of Newbury? (health club, racquet ball, tennis, etc.) (Circle one)

- | | |
|--------|-----|
| A) Yes | 264 |
| B) No | 546 |

2. Would you like to see the Rec. Board work to provide additional facilities?
(Answer yes or no)

	<u>Yes</u>	<u>No</u>
A) Adult indoor facility for basketball, tennis, volleyball, etc.	320	371
B) Outdoor tennis courts, fenced and lighted	228	449
C) Public swimming pool/indoor/outdoor	435	338
D) Adult education classes	414	289
E) Children after school activities, tutoring, art activities, etc.	489	222

3. Are you interested in helping promote recreation in Newbury Township? If yes, please call 564-2100.

FIRE AND POLICE

1. In the last five years, have you or any of your immediate family used the Newbury Volunteer Fire Dept.? If yes, how would you rate our services?

A) Excellent	247
B) Good	91
C) Fair	13
D) Poor	5

2. Currently the Fire Department's average weekly (daytime) response is 2 – 3 persons in an average response time of 7 – 9 minutes. Would you be willing to support a small tax increase to provide an on duty crew (fire/medic) to improve daytime responses?

A) Yes	465
B) No	299

3. Would you be interested in serving the community as a volunteer member of the fire department? Call 564-2261 non-emergency number for information.

4. In the last five years, have you or any of your immediate family members used the services of the Newbury Police Department? If yes, how would you rate our services.

A) Excellent	110
B) Good	131
C) Fair	61
D) Poor	49

5. The Newbury Police Department is currently on duty 80 hours per week (average). Do you feel this is sufficient?

A) Yes	538
B) No	235

TAX ISSUES

1. A 1 mill tax levy would cost \$30.62 per year on a home with a market value of \$100,000.00. Would you be willing to support a tax levy to subsidize (Yes or No)

	<u>Yes</u>	<u>No</u>
A) Additional fire and rescue services	432	302
B) Additional police protection	293	411
C) Recreation facilities	343	390
D) Township park development and/or restoration	327	391

SCHOOL

23.2%	Parent of Newbury Local School District student(s)	*1.
10.8%	Parent of private school student(s)	*2.
66.0%	Resident without school-aged children	*3.

Notes to Respondents Categories

- *1. Including 10 parents with both public and private/parochial school students.
- *2. Including 3 parents with “Home Schooled” students.
- *3. A general category of respondents including parents with children who have graduated already from Newbury Schools. Many respondents including parents with children too young to attend school yet. Also includes parents of students who have graduated already from Newbury Schools. Many respondent indicated that they and/or their spouses were graduates of Newbury Schools, their children were NHS graduates and that now their grandchildren, nieces and nephews were attending Newbury Schools. Also included in this category were responses from local business owners, who may or may not be Newbury Township residents.

1. Students are often given grades of A, B, C, D, and F to denote the quality of their work. What grade would you give the Newbury Schools? (Circle)

A & B	41.0% of Parents of Newbury Local Schools student(s) 15.0% of Parents of private/parochial school student(s) 43.0% of Residents without school-aged children
C	43.3% of Parents of Newbury Local Schools student(s) 49.0% of Parents of private/parochial school student(s) 41.0% of Residents without school-aged children
D & F	15.7% of Parents of Newbury Local Schools student(s) 36.0% of Parents of private/parochial school student(s) 16.0% of Residents without school-aged children

2. In your opinion, how do the Newbury Schools compare with other school systems in the area?

- A) We have the best schools in the area. 5
- B) Our schools are above average. 3
- C) Our schools are about average. 1
- D) Our schools are below average. 2
- E) Our schools are not good. 4

We have the best schools in the area.

- 0.6% of Parents of Newbury Local Schools student(s)
- 0.0% of Parents of private/parochial school student(s)
- 2.6% of Residents without school-aged children

Our schools are above average.

- 18.0% of Parents of Newbury Local Schools students(s)
- 4.5% of Parents of private/parochial school student(s)
- 19.7% of Residents without school-aged children

Our schools are about average.

- 54.0% of Parents of Newbury Local Schools student(s)
- 43.3% of Parents of private/parochial school students(s)
- 54.4% of Residents without school-aged children

Our schools are below average.

- 23.3% of Parents of Newbury Local Schools student(s)
- 44.7% of Parents of private/parochial school student(s)
- 18.5% of Residents without school-aged children

Our schools are not good.

- 4.1% of Parents of Newbury Local Schools student(s)
- 7.5% of Parents of private/parochial school student(s)
- 4.8% of Residents without school-aged children

3. Below are various sources of information about the Newbury Schools. Please rank them from 1 through 8 according to how important you think they are with 1 being most important, 2 being the second most important, etc.

- A) School children 1
- B) Friends and neighbors 2
- C) Teachers 3
- D) School board & administration 5
- E) School district publications 4
- F) News-Herald, Maple Leaf, Chagrin Times 7
- G) Cleveland Plain Dealer 7
- H) Radio and television station 8

<u>Parent of Newbury Local School District Student(s)</u>	<u>Parent of Private School Student(s)</u>	<u>Resident Without School-aged Children</u>
1. School children	1. School children	1. School children
2. Teachers	2. Friends & neighbors	2. School district publications
3. Friends & neighbors	3. School dist. publications	3. Friends & neighbors
4. School bd. & admin.	4. School bd. & admin.	4. Teachers
5. School district publications	5. News Herald, Maple Leaf, Chagrin Times	5. School bd. & admin.
6. News Herald, Maple Leaf, Chagrin Times	6. Teachers	6. News Herald, Maple Leaf, Chagrin Times
7. Cleveland Plain Dealer	7. Cleveland Plain Dealer	7. Cleveland Plain Dealer
8. Radio & TV station	8. Radio & TV station	8. Radio & TV station

4. In recent years, has your overall attitude toward the Newbury Schools become more favorable, less favorable or no change?

_____ More favorable _____ Less favorable _____ No change

More Favorable: 36.2% of Parents of Newbury Local School student(s)
 1.5% of Parents of private/parochial school student(s)
 4.0% of Residents without school-aged children

Less Favorable: 31.0% of Parents of Newbury Local School student(s)
 34.3% of Parents of private/parochial school student(s)
 27.0% of Residents without school-aged children

No Change: 32.8% of Parents of Newbury Local School Student(s)
 45.7% of Parents of private/parochial school student(s)
 52.0% of Residents without school aged children

5. How would you rate the condition of the school building and facilities in the Newbury School District?

_____ Excellent _____ Good _____ Below average _____ Not Good

Excellent: 1.0% of Parents of Newbury Local School Student(s)
 1.5% of Parents of private/parochial school student(s)
 4.0% of Residents without school-aged children

Good/Avg.: 37.0% of Parents of Newbury Local School student(s)
 41.0% of Parents of private/parochial school student(s)
 64.0% of Residents without school-aged children

Below Avg.: 47.0% of Parents of Newbury Local School student(s)
48.0% of Private/parochial school-aged student(s)
26.0% of Residents without school-aged children

Not Good: 15.0% of Parents of Newbury Local School student(s)
9.5% of Parents of private/parochial school-aged students
6.0% of Residents without school-aged children

Township Questionnaire Analysis

The following is an analysis of the total results of the 1999 Newbury Township survey and a comparison, where applicable, with the results of the previous 1992 survey.

DEMOGRAPHICS

1. From 1992 to 1999, the percentage of respondents living in Newbury over 20 years increased from over one-third (36%) to nearly one-half (46%). In addition, a total of 41% of the respondents to the 1999 survey indicated that they lived in the township for either 11 to 20 years (20%) or 0 to 5 years (21%).
2. According to the 1999 survey, over 37% of the wage earners work in Geauga County and about 36% work in Cuyahoga County. The 1992 survey results indicated that 36% of the wage earners worked in Geauga County and 39% in Cuyahoga County.
3. According to the 1999 survey results, 96% of the respondents own the home they occupy.
4. The 1999 survey results indicated that 15% of the respondents are living on a lot less than 1 acre, 18% on 1 – 1.9 acres, 39% on 2 – 3.9 acres, and 28% have a lot over 4 acres. The 1992 survey results indicated that 33% of the respondents were living on lots over 4 acres and 32% of the respondents were living on lots from 2 - 3.9 acres.
5. About 39% of the 1999 survey respondents felt that the best lot size for residential development was 3 acres. This was followed by 23% and 18% for 2 and 5 acre lots respectively. In the 1992 survey results, 35% of respondents felt that the best lot size for residential development was 2 acres. This was followed by 26% and 16% for 3 and 5 acre lots respectively (see Table 5.1).

Table 5.1

Preferred Residential Lot Sizes
Newbury Township Questionnaires: 1992 and 1999

<u>Lot Sizes</u>	<u>1992 Percent of Responses</u>	<u>1999 Percent of Responses</u>
< 1 acre	3.8%	1.9%
1 acre	9.6%	8.0%
2 acres	35.0%	22.7%
3 acres	25.8%	39.3%
4 acres	3.2%	3.5%
5 acres	15.8%	17.6%
> 5 acres	4.1%	4.6%
Other	2.7%	2.4%
Total	100.0%	100.0%

Source: Newbury Township Questionnaires, 1992 and 1999

6. The primary change in the community that the 1999 survey respondents would like to see is the preservation of farms (22%), followed by more open space (19%), and more rigorous zoning enforcement (16%). These changes were also the top three choices of the respondents in the 1992 survey results.
7. The characteristic of Newbury listed as most attractive in both the 1999 and 1992 surveys was wooded areas 26% (26% in 1992), followed by areas of open land 22% (22% in 1992), and distances between homes 21% (22% in 1992).
8. The majority (64%) of the 1999 respondents indicated that there was no need to hire an independent land use planner.
9. In regard to permitted additional types of housing (aside from single family dwellings) that should be permitted, 32% of the 1999 respondents indicated that single family homes with one attached in-law suite should be allowed, followed by 31% supporting housing for the elderly, and 14% favoring condominiums.
10. The types of development that the 1999 respondents would like to see in Newbury were ranked in the following order of importance: 1) residential, 2) agriculture, 3) professional office, 4) commercial, and 5) industrial.
11. The objectives of land use and zoning were rated by the 1999 survey respondents with respect to a number of variables. The following were rated “very important” by those responding: to protect property values and to protect the quality of the environment. The following were rated “somewhat important”: to protect open space and recreational areas, to protect character of community, to maintain a rural atmosphere, and to control the type of development. The variables rated “not important” included control the pace of development and enhance the tax base of the township. The 1992 survey responses

were very similar: 88% of the respondents indicated that protection of the environment was “very important” as well as the protection of property values (87%). Only 37% of the respondents indicated that it was “very important” to enhance the tax base.

RECREATION BOARD

1. The majority (67%) of the 1999 respondents indicated that they do not pay for recreational activities outside of Newbury.
2. The majority of the 1999 respondents indicated that they would like to see the Recreation Board provide the following additional facilities: outdoor tennis courts fenced and lighted (66%), adult indoor facility for basketball, tennis, volleyball, etc. (54%).

FIRE AND POLICE

1. The majority of the 1999 respondents rated the Newbury Volunteer Fire Department as excellent (69%).
2. The majority (61%) of those answering in 1999 indicated that they would be willing to support a small tax increase in order to provide an on duty crew member to improve daytime responses.
3. Any immediate family members of the 1999 respondents who had used the services of the Newbury Police Department during the last five years rated it excellent (31%) to good (37%).
4. The majority (62%) of the respondents in 1999 indicated that the current on duty time of 80 hours per week for the Newbury Police Department is sufficient.

TAX ISSUES

1. The majority of those answering the 1999 survey indicated that they would not support a tax levy to subsidize additional police protection (58%), recreation facilities (53%), and township park development and/or restoration (54%).

SCHOOL

1. With regard to rating the school system, a grade of ‘C’ was given by 43% of the parents of Newbury Local School students responding in 1999, 41% gave the school system an ‘A’ or ‘B’ and 16% gave it a ‘D’ or ‘F’. Almost half (49%) of the parents of private/parochial school students gave the Newbury school system a grade of ‘C’, 36% a ‘D’ or ‘F’, and 15% an ‘A’ or ‘B’. Residents without school age children (43%) gave a grade of ‘A’ or ‘B’, ‘C’ by 41%, and 16% a ‘D’ or ‘F’.

2. The 1999 respondents of parents of Newbury Local Schools compared the Newbury Schools with other school systems in the area and ranked them in the following manner: 1) Our schools are about average (54%), 2) Our schools are below average (23%), 3) Our schools are above average (18%), 4) Our schools are not good (4%), and 5) We have the best schools in the area (0.6%).

The respondents of parents of private/parochial school students compared the Newbury Schools with other school systems in the area and ranked them in the following manner: 1) The school system is below average (45%), 2) The school system is about average (43%), 3) The school system is not good (8%), and 4) The school system is above average (5%).

The respondents of residents without school-aged children compared the Newbury Schools with other school systems and ranked them in the following manner: 1) The school system is about average (54%), 2) The school system is above average (20%), 3) The school system is below average (19%), 4) The school system is not good (5%), and 5) The school system is the best in the area (3%).

3. The 1999 respondents of parents of Newbury Local Schools ranked in the order of importance the various available sources of information about the Newbury Schools: 1) School children, 2) Teachers, 3) Friends and neighbors, 4) School Board and Administrative School District publications, 6) News Herald, Maple Leaf, Chagrin Valley Times, 7) Cleveland Plain Dealer, and 8) Radio and television stations.

The respondents of parents of private/parochial school students ranked in order the various available sources of information about the Newbury Schools: 1 and 2) School children and friends and neighbors, 3) School district publications, 4 and 5) School Board and Administration, News Herald, Maple Leaf, and Chagrin Valley Times, 6) Teachers, 7) Cleveland Plain Dealer, and 8) Radio and Television stations.

The respondents of residents without school-aged children ranked in order of importance available sources of information about the Newbury Schools: 1) School children, 2) School district publications, 3) Friends and neighbors, 4) Teachers, 5) School Board and Administration, News Herald, Maple Leaf, Chagrin Valley Times, 7) Cleveland Plain Dealer, and 8) Radio and television stations.

4. Parents of Newbury Local Schools overall attitude toward Newbury Schools has become more favorable for 36% of the 1999 respondents, has not changed for 33% of the respondents, and has become less favorable for 31% of the respondents.

Parents of private/parochial school students overall attitude toward Newbury Schools has not changed for 46% of the respondents, is less favorable for 34% of the respondents, and is more favorable for 20% of the respondents.

Residents without school-aged children overall attitude toward Newbury Schools has not changed for 52% of the respondents, is less favorable for 27% of the respondents, and more favorable for 21% of the respondents.

5. Respondents in 1999 of parents of Newbury Local School students rated the school buildings and facilities in Newbury as below average (47%), good/average (37%), not good (15%), and excellent (1%).

Respondents of parents of private/parochial school students rated the school buildings and facilities in Newbury as below average (48%), good/average (41%), not good (10%), and excellent (2%).

Respondents of residents without school-aged children rated the school buildings and facilities in Newbury as good/average (64%), below average (26%), not good (6%), and excellent (4%).

CHAPTER 6

RECOMMENDATIONS

The recommendations contained in this chapter are meant to guide township land use, zoning, and economic development decision-making. The future land use plan map at the end of the chapter reflects various zoning classifications for review by the township.

The township is encouraged to examine the environmental data and mapping contained in Chapter 4 when reviewing proposed development plans and zoning amendments. The survey results in Chapter 5 plus the information gathered by the township steering committee, the Chagrin River Watershed Partners, Inc. (CRWP), the Cobalt Group, and the Kent State University's Urban Design Center (KSU/UDC) that assisted in the formation of this plan should be used as guidance as well (see Appendix). Financial assistance was provided by the Chagrin River Watershed Partners, Inc. with funding from the Ohio Water Development Authority through the Ohio Lake Erie Commission.

Balanced Growth Program

The Balanced Growth Program (BGP) through the state of Ohio www.epa.state.oh.us/oleo/bg1/index.html and managed locally by the Chagrin River Watershed Partners, Inc. (CRWP) was a part of the land use plan formulation process. The Balanced Growth Program is a voluntary, incentive-based program for balanced growth in the Ohio Lake Erie basin. It calls for the creation of a locally driven planning framework that focuses on land use and development planning in the major river tributary watersheds of Lake Erie. The goal is to begin to link land-use planning to the health of watersheds and the Lake. A primary component of this planning process is the designation of Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs).

- **Priority Conservation Areas (PCAs)** are locally designated area targeted for protection and restoration. PCAs may be important as ecological, recreational, heritage, agricultural, or public access areas. PCAs represent areas where land use change is predicted to have a high impact on the watershed in terms of flooding, erosion, and water quality.
- **Priority Development Areas (PDAs)** are locally designated area where growth and/or redevelopment is to be especially promoted in order to maximize development potential, efficiently utilize infrastructure, revitalize existing cities and towns, and contribute to the restoration of Lake Erie. PDAs represent areas where land use change is predicted to have minimal impact on the watershed and where other conditions, such as access to highways, existing or planned utility service areas, and existing development, suggest that additional development may be appropriate.

CRWP developed draft maps of Priority Conservation Areas (PCAs) and Priority Development Areas (PDAs) for the township. The draft maps were developed generally using criteria that reflected the characteristics of PCAs and PDAs, detailed below.

Priority Conservation Areas (PCAs) characteristics:

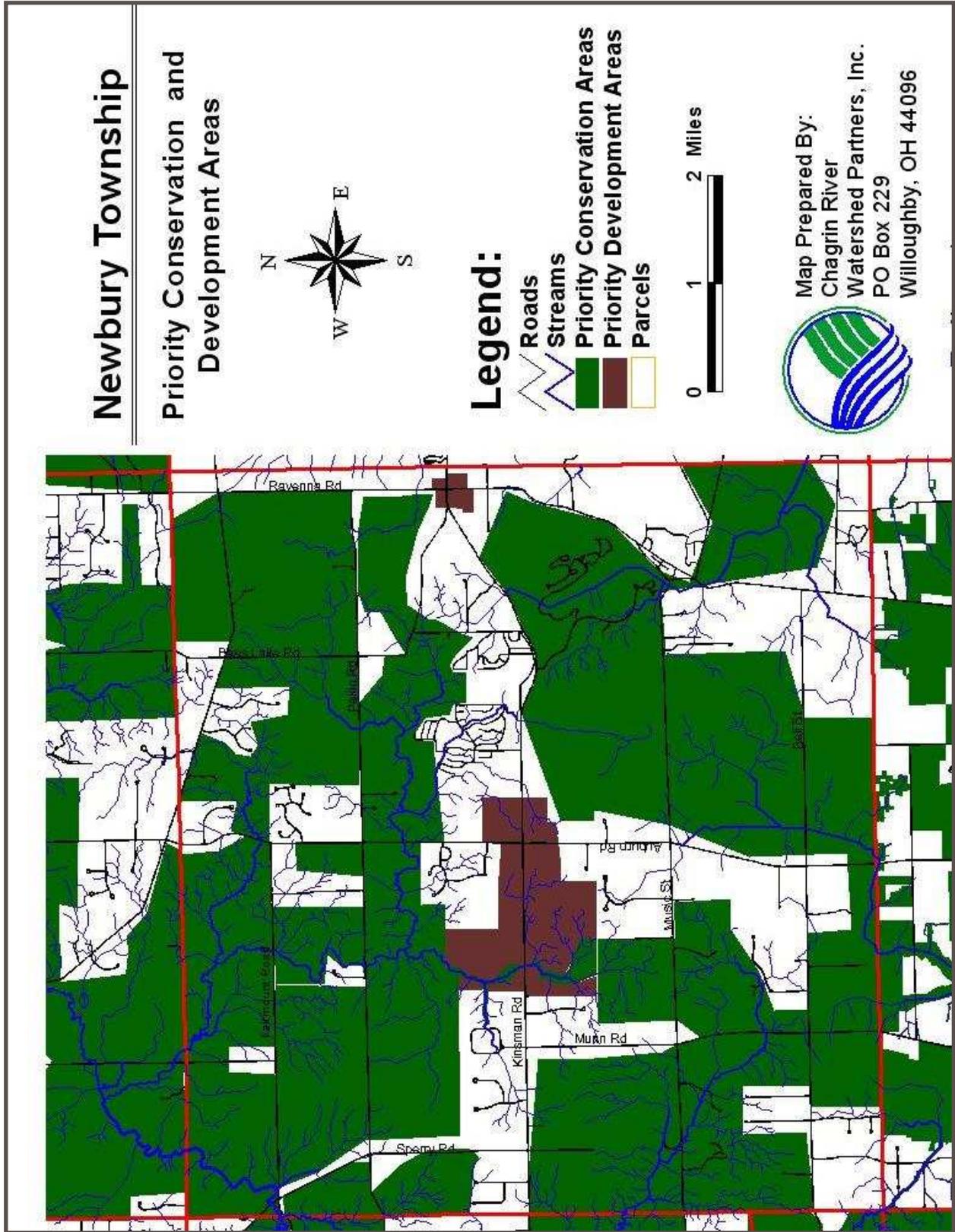
- Situated within a watershed ranked as highly sensitive to land use change related to flooding, erosion, and water quality impacts.
- Contain a wetland.
- Are currently protected for conservation or open space purposes.
- Include a FEMA 100-year floodplain.
- Involve a recommended riparian setback area.
- Encompass a state scenic, cold water, or exceptional warm water habitat stream, or a stream with a native brook trout population.
- Contain high value historic/cultural resources.
- Reflect a significant potential for ground water pollution.

Priority Development Areas (PDAs) characteristics:

- Are not within a highly sensitive watershed.
- Lie within a U.S. Census Bureau Dense Urban Area.
- Have a dense commercial/light industrial land use pattern.
- Are within 500 feet of the intersection of a state route.
- Are included in a planned 208 service area, either currently served by sewers or planned for sewer service.
- Have a subwatershed with 30% or more impervious cover (roads, parking areas, driveways, rooftops).
- Reflect a low potential for ground water pollution.
- Areas zoned as commercial or light industrial.

The draft maps were revised by the Township Steering Committee, Geauga County Planning Commission, and CRWP to reflect local priorities and information. The final developed map is on Page 6-3.

Map 6.1



The foregoing map will be included in the *Chagrin River Balanced Growth Plan*. This plan will include designation of PCAs and PDAs throughout the Chagrin River watershed. Communities endorsing the locally designated PDAs and PCAs will be recognized by the State as participating in the *Chagrin River Balanced Growth Plan*. This participation has a number of benefits to local communities. Some of the potential benefits with respect to participation in the BGP planning process may include:

- Increased state assistance for local projects.
- Support for local zoning.
- Additional state incentives, such as points on grant applications and lower interest rates on state loan programs.
- General local benefits, including minimizing long-term infrastructure and stormwater management costs and advancing the preservation of the semi-rural character of the township.

The PDA locations on Map 6.1 reflect two areas in which future growth activities may be encouraged. The total area represents about 669 acres. The S.R. 44 and S.R. 87 intersection is primarily developed. However, opportunities exist to enhance existing buildings and encourage their occupancy by professional offices and commercial/light industrial uses. The intersection has a high traffic volume and the state routes are connected to major interstate routes to the north (I-90) and to the south (U.S. 422/I-480 and I-80). It is a “gateway” to the township. The other PDA location shown on the map is the intersection of S.R. 87 and Auburn Road. This is the focus of the Town Center District (TCD) for the community. The TCD is strategically located near the geographic center of Newbury and Geauga County as well, making it readily accessible to all areas of the community and the region. S.R. 87 is a major east-west corridor in the county and Auburn Road represents the only north-south county maintained road that traverses the entire length of Geauga.

The PCA locations shown on Map 6.1 reflect areas that are existing parks and protected properties. In addition the map represents areas with sensitive slopes, streams, floodplains, and wetlands. These site characteristics suggest that an area has unique ecologic or historic considerations or may be particularly difficult to develop. Designation of these areas as PCAs does not indicate that these areas will not be developed, however communities could save time and money working with property owners for preservation or interested developers for alternative site designs that enable development but limit impacts to natural resources on these PCA parcels.

There are various tools available to assist the community in achieving the PCA/PDA objectives. Some recommendations for consideration include:

- Conservation Open Space (COS) development zoning regulations (see Geauga County Model Township Zoning Resolution” at www.co.geauga.oh.us/departments/planning/zoning.pdf.)

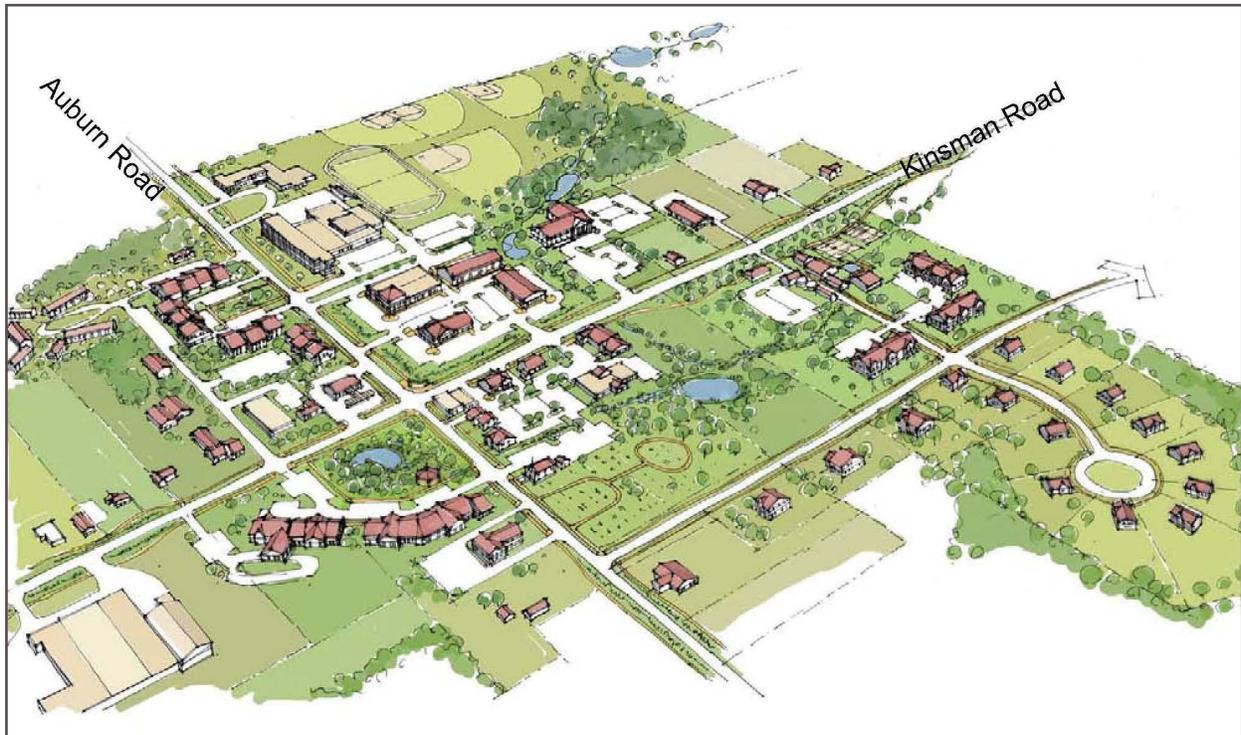
- Town Center District (TCD) development zoning regulations with appropriate architectural and landscaping criteria (for landscaping and architectural regulations, see “Geauga County Model Township Zoning Resolution” at www.co.geauga.oh.us/departments/planning/zoning.pdf.)
- Agricultural land protection (see the “Geauga County Farmland Preservation Plan” at www.co.geauga.oh.us/departments/planning/farmland/index.htm.)
- Riparian protection and water management and sediment control zoning regulations as a means to enhance “green” infrastructure (see “Geauga County Model Township Zoning Resolution” at www.co.geauga.oh.us/departments/planning/zoning.pdf.)
- Low Impact Design (LID) site development measures including bio-retention and bio-infiltration (see CRWP website at www.crwp.org).
- Access management guidelines for roads and driveways to enhance safety and minimize congestion (see ODOT Access Management Manual at <http://www.dot.state.oh.us/Divisions/ProdMgt/Roadway/AccessManagement/Pages/default.aspx>)
- Development of recreational opportunities at existing parks.
- Planned light industrial development.
- Alternative parking regulations to minimize creation of excess impervious cover (see CRWP website at www.crwp.org).

Town Center Concept Plan

The Kent State University Urban Design Center (KSU/UDC) prepared, with the input of the township steering committee and the affected stakeholders, options for a Town Center District located at the intersection of S.R. 87 and Auburn Road. The plan (see Map 6.2) includes critical design suggestions in order to convey a distinct identity for Newbury. It also contains suggestions for private and public uses, building setbacks, off-street parking, points of vehicular access, the interconnection of facilities with pedestrian walkways/trails, stormwater management, and related matters. It is of utmost importance that the stakeholders remain a part of the process of planning for the affected area. The goal is promote a “sense of place” for Newbury, advance economic development, and develop the affected area in a way that recognizes sensitive environmental constraints and stormwater issues.

Map 6.2

Town Center Concept Plan: Option 1 Newbury Township



Prepared by: Urban Design Center of Northeast Ohio

[For more options, see Appendix 4.]

Economic Development

Newbury Township officials are interested in promoting sound economic development practices in the community in order to make it more sustainable and livable. A united effort is of critical importance going forward on this matter in order to make Newbury a place of choice for businesses that desire to grow, innovate, and prosper. There are numerous resources and programs that the township may wish to pursue. They are outlined in detail in the Appendix.

It is important for Newbury to “brand” itself and develop a marketing plan/strategy to retain existing businesses and to attract new ones. Some other components with respect to promoting economic development in the community to consider may include:

- Conduct periodic interviews with affected stakeholders in the business community to determine needs and issues.

- Work with stakeholders in developing job ready sites.
- Update the township’s website to provide information on available sites and buildings.
- Work closely with county departments (Geauga’s “Rapid Response Team”) to quickly address business inquiries.
- Consult with business prospects to “navigate” them through the system.
- Evaluate certain township held land for potential development activities.
- Explore a sewer feasibility study and stream analysis for the 208 service plan area.

Infrastructure Issues (see Town Center Plan in Appendix 4)

The state routes in the township represent the major arterial routes and carry the highest traffic volumes. Due to the numerous points of ingress and egress along the S.R. 87 corridor, the increasing traffic volume, and the types of vehicles carrying freight for pick-up and delivery of goods it may be advisable to explore with ODOT various improvements. For example, a center turn lane, left turn lanes at the Auburn Road intersection, and a lower speed limit may be topics for review.

Furthermore, streetscape enhancements may be explored to improve the appearance of the corridor. For instance, a tree planting program may be examined, consisting of trees appropriately placed that will not impede signage or visibility along the right-of-way.

The interconnection of roads in future development areas should be encouraged, when feasible. There are safety considerations that should be taken into account when new roads are being platted. Also, school bus routing, road maintenance, and alternative means of access should be a part of the review process.

The 208 Service Plan area should be examined in terms of a sewer feasibility study and a stream analysis. The existing wastewater treatment plant located on the Newbury School campus has limited capacity at present. In order for the Town Center and adjacent areas to develop, the ability to provide adequate central sanitary sewer service is critical. The Town Center Plan in Appendix 4 assumes a 60,000 GPD sewer plant upgrade.

Township Recreation Activities

The development of “Oberland Park,” held by the township, has been under review with the board of trustees and the park board. Certain active recreational uses for consideration at the site include baseball/softball fields, soccer fields, and hiking trails.

These activities will complement the Newbury School campus and provide a viable location for youth leagues, along with ancillary support uses such as off-street parking and restroom facilities.

Zoning Classifications

A basic tenant of zoning is to guide development into specific zones of a reasonable size in order to separate incompatible land uses and to provide for balanced and orderly growth. Therefore, the areas shown on the LUP map (see Map 6.3) and described in the subsequent text have been devised utilizing the following guiding principles in the interest of advancing the public health, safety, and general welfare:

- To divide the township into zoning districts and to provide uniform regulations for each class or kind of building, structure or use within such districts.
- To regulate the use of buildings and structures in each zoning district and to ensure appropriate utilities, sewage treatment and water supply facilities, stormwater and erosion control, and other matters related to public health and safety are adequately addressed to serve such uses.
- To conserve and protect the natural resources of the township, including the supply of groundwater.
- To ensure that development is in accord with the capability and suitability of the land to support it.
- To provide regulations that advance balanced and orderly growth and development in the township as well as preserve sensitive environmental resources.

Existing Zoning Classifications

Residential (R-1): The R-1 district is designated for detached single family residential dwellings and related uses. The purpose of this district is to provide for low density residential development and thereby protect the quality of the limited natural resources in the township. It includes about 16,000 acres or 87% of the township. There are about 5,043 acres of undeveloped land in this zone. The majority of the district is rated “severe” for development based upon the land capability analysis (see Map 4.25 “Composite Capability” in Chapter 4 and the description of the ratings). Consequently, it is recommended that no more than one, single family detached dwelling per three acres be permitted within the R-1 District. This is in harmony with the current zoning resolution.

The Conservation Open Space (COS) regulations in the current zoning resolution for the R-1 District should be carefully examined. COS development must be “density neutral.” That is, while dwellings may be “clustered” in order to preserve open space, the total number of dwellings allowed within a development site must adhere to the three acre density as set forth in the zoning resolution. The “Model Township Zoning Resolution” pertaining to residential COS development may be reviewed by the township as a guide (see www.co.geauga.oh.us/departments/planning/zoning.pdf). Furthermore, the PCA/PDA map (see Map 6.1) should be used as a resource to aid in the identification of potential COS development locations.

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Professional Office (P-O): The P-O district is meant to reasonably regulate the development and use of land for primarily non-retail office use. In addition, the uses allowed should not generate high traffic volumes or create excessive noise or other nuisance related issues that may impact nearby residential uses. The district has limited application and should act as a transition zone or buffer between more intensely developed commercial/light industrial uses and less intensive existing or future residential uses. Additional setback area between such uses and landscaping criteria to establish a buffer and to smooth the transition should be considered. It is not the intent of the P-O district to create non-residential uses in an area that is currently without such uses or to isolate existing residentially zoned lots.

The P-O areas shown on the land use plan map contain about 72 acres or less than one percent of the total township. There are about 18 acres of undeveloped land in this zone. The minimum lot size, according to the zoning resolution, is three acres.

Commercial/Business (B-1): The B-1 zone shown on the land use plan map includes about 486 acres or 3% of the township. Roughly 79 acres remain undeveloped in the district. The land within the district fronts along S.R. 87 and S.R. 44, the major arterial thoroughfares in the township. The purpose of this district is to establish and maintain commercial businesses and concentrations of retail stores that provide services and consumer products to the community and surrounding areas.

The land capability analysis in this plan concludes that the majority of the B-1 zone is rated “severe” for development. As a result, since central sanitary sewer is not available, the design and location of on-site sewage treatment systems in relationship to buildings, parking, driveways, and other utilities on a lot are of high importance. The current minimum lot size in the B-1 district is three acres pursuant to the zoning resolution.

Access management is a concern with respect to future commercial development. Because the district is along the state routes noted above, the issuance of access permits by ODOT for new or altered driveways should be taken into consideration as a part of the process of issuing zoning permits and granting variances through the board of zoning appeals. Additionally, when feasible, shared parking arrangements should be examined.

Industrial (M-1): The M-1 zone consists of about 539 acres or 3% of the township. Approximately 290 acres are undeveloped in the district. The majority of it is situated on the south side of S.R. 87, between Sperry and Auburn Roads. The intent of this district is to reasonably regulate the development and use of land for light manufacturing, research, assembly, and service establishments. Newbury’s central geographic location and good access to arterial and interstate highways make it particularly well positioned for retaining existing industry and attracting new firms.

The majority of the industrial zone is rated “severe” for industrial development, according to the land capability analysis. Because there currently is a lack of sanitary sewers serving the district, on-site treatment systems must be relied upon. Such systems must be sited on a lot in connection with the placement of buildings, parking, driveways, and other utilities. Furthermore, from a land capability perspective, industries requiring large amounts of water and subsequently discharging significant quantities of treated sewage effluent may not be desirable.

The current minimum lot size in the industrial district, according to the zoning resolution, is five acres. The township should work with affected stakeholders in developing job ready sites. Such sites will have the road access, utilities, and other infrastructure available to readily address the needs of prospective firms that wish to locate in the community.

Active Park (A-P): The A-P district is established to provide recreational opportunities for the general population in a park-like setting and atmosphere; to promote certain healthy and beneficial leisure time activities for the general population which do not present significant risk or harm to others, and to afford reasonable access for the public to outdoor athletic, social, and educational activities. The Active Park District is meant to achieve a balance between the public's need for active outdoor recreational facilities and the preservation of open space, light and air for the enjoyment of such activities.

The AP-1 district includes Punderson State Park and other land held by the township. The zoning regulations for this district allow recreational activities such as ball fields, golf courses, and the like that are compatible with existing land use and adjacent zoning districts. The AP-1 zone encompasses about 987 acres as shown on the land use map or about 5% percent of the township.

Passive Park (P-P): The P-P zone contains about 262 acres or 1.44% percent of the township. The zone is intended to protect and preserve park lands, wilderness areas, open spaces, and scenic areas; to conserve fish and wildlife; to promote forestry, wetlands, and other natural habitats; to protect, promote, and maintain the area's ecosystem; to enhance the public's knowledge of the area's ecosystem; and to educate the public with respect to the preservation of natural habitats.

The affected land is held by the Geauga Park District and is generally considered to be very environmentally sensitive. Consequently, retention of the land in its natural state is encouraged through the applicable regulations in the zoning resolution.

Proposed Zoning Classifications

Town Center Development (TCD), Planned Residential Development (PRD), Planned Business Development (PBD), and Planned Industrial Development (PID) areas are depicted on the future land use plan map. The potential implementation of these areas may be linked to the provision of adequate infrastructure to serve them. Furthermore, they are representative of a long-range vision predicated on the concept plan in Appendix 4, that is subject to further revision and refinement upon the submission of more detailed site plans by the affected stakeholders for consideration and examination by the township.

Town Center Development (TCD): The Town Center Development (TCD) area may be created in order to allow specific uses at a development intensity in a manner that:

- Encourages skillful planning by allowing flexibility in type and placement of buildings while promoting coordinated architectural design within a unified development area.
- Promotes a mix of complimentary land uses that may include retail, professional offices, commercial services, civic and governmental uses, and recreational activities to create economic and social vitality.

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- Utilizes topographic and landscape features to enhance and unify the development as well as protect nearby residential uses.
- Provides flexibility in the siting and design of new development and redevelopment to anticipate changes in the marketplace.
- Establishes design criteria for development activity that are aesthetically pleasing and pedestrian friendly. A “walkable” environment that is both highly accessible and safe should be encouraged.
- Promotes the efficient use of land, utilities, driveways, parking, and services.
- Promotes increased open space and landscaped areas between uses along public roads.
- Controls the vehicular circulation and access pattern to existing roads to reduce congestion and increase safety.
- Creates an identity or “sense of place” for the community.

Planned Residential Development (PRD): Planned Residential Developments are recommended in order to encourage and accommodate, in a unified project, imaginative residential development plans that observe the semi-rural character of the township and preserve sensitive natural areas and open space. PRD is meant to achieve the following objectives:

- To allow flexible residential development on larger sites that have natural features such as wetlands, streams, ponds, steep slopes, floodplains, and wooded areas which contribute to the character of Newbury as well as enhance the protection of ground water recharge areas and minimize storm water runoff.
- To promote the economical and efficient use of land and reduce infrastructure costs and maintenance through unified development.
- To permit the flexible spacing of dwellings in order to separate vehicular and pedestrian circulation as well as the provision of readily accessible open space and recreation areas.
- To encourage alternative housing opportunities, particularly for older adults. Based upon available Census data, the senior population in the county and Newbury Township continues to climb. According to the year 2000 Census, the 60 and over population in Newbury was 1,052 -- with a projected figure of 2,043 by the year 2015 (“Growth of Senior Housing Needs in Geauga County,” Geauga County Auditor, 2003). “Aging in place” should be a goal that is encouraged.
- To ensure that PRDs are compatible with nearby land uses. Linkage to the Town Center is of particular importance.

Planned Business Development (PBD): The Planned Business Development locations are meant to:

- Encourage the development of non-residential uses that enhance the township's image through the application of appropriate design and architectural principles, high-quality construction techniques, and provision of related aesthetic amenities.
- Allow the township to address a wide range of commercial uses in a manner that ensures that such uses are compatible with the surrounding uses, particularly residential uses.
- Ensure that the review of commercial development exceeds the level of review required for ordinary B-1 District uses by requiring a comprehensive and overall development plan review and approval procedure.
- Foster a comprehensive stormwater management plan and facility for the affected areas.

Planned Industrial Development (PID): The Planned Industrial Development area is suggested to achieve the following purposes:

- To allow a flexible zoning management tool that is in response to sites that may have unique physical, service and functional constraints.
- To provide a means to meet the needs of light manufacturing uses in a more comprehensive fashion.
- To ensure that the review of light industrial development is more comprehensive in scope than the typical examination of M-1 uses by requiring an overall and comprehensive development plan review and approval process.
- To encourage a comprehensive stormwater management plan and facility to serve the intended uses.

Table 6.1

Future Generalized Land Use Plan Map Legend
Newbury Township

<u>Category</u>	<u>Acres</u>	<u>Percent of Township</u>
R-1: Residential	15,924.99	87.15%
P-O: Professional Office	71.66	0.39%
B-1: Commercial/Business	486.94	2.66%
M-1: Industrial	539.28	2.95%
A-P: Active Park	987.25	5.41%
P-P: Passive Park	262.38	1.44%
Environmentally Sensitive	6,422.21	35.15%
Surface Water	566.00	3.10%

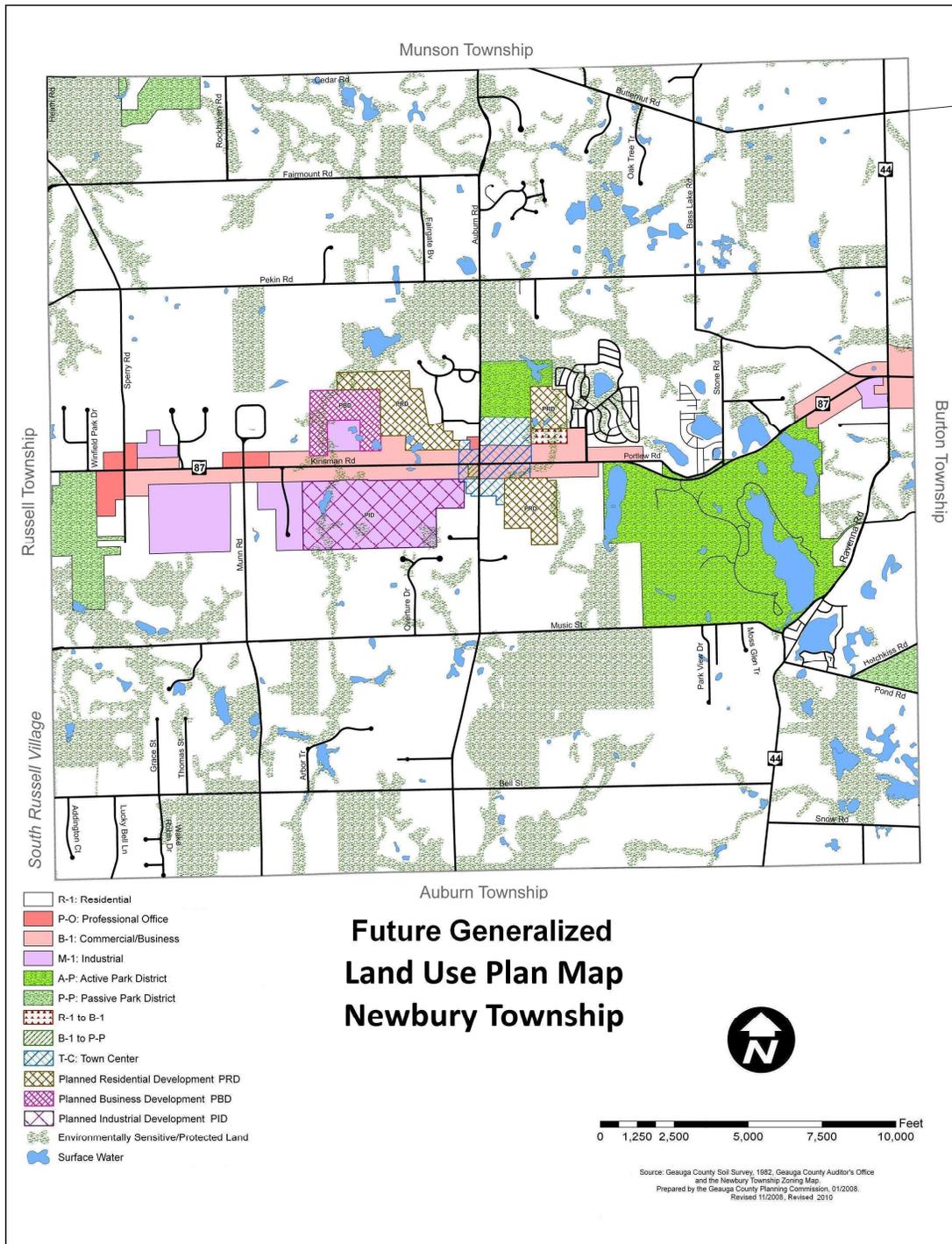
Sources: Geauga County Soil Survey, 1982
Gauga County Auditor's Office
Newbury Township Zoning Map

Adoption, Implementation, and Review

In the introductory portion of this document, it was emphasized that zoning should be based upon a plan. To that end, it is recommended that the board of township trustees adopt the land use plan. However, upon its adoption, planning activities should not be terminated. Successful planning and zoning requires a continuous effort on the part of public officials in order to meet changing land use needs and circumstances in the community. As a result, a program for periodic review and update of the plan and zoning resolution should be established. The PCA/PDA map included in this document should be endorsed by the Board of Township Trustees as well.

With respect to the adoption of zoning regulations, it is recommended that the township officials utilize the "Gauga County Model Township Zoning Resolution." The "Model" reflects a sound legal basis for the townships' zoning and it may be tailored to the specific planning issues facing the community as well.

Map 6.3



Note: This map reflects potential options. There may be other development plans and uses for consideration within the area included in the plan.

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APPENDIX 1

RESOURCES AND PROGRAMS

Resources

Business Incentives Loans and Grants

- Community Development Block Grant (CDBG)
 - Project type: Gap financing for local business development
 - Rate/terms: \$500,000 maximum for direct loans and \$400,000 maximum for public infrastructure projects
 - Special notes: Loan repayments are deposited to county revolving loan fund for additional projects
- Geauga County Revolving Loan Fund (RLF)
 - Project type: Gap financing for businesses below prime rate
 - Rate/terms: Loan amount based on status of RLF, jobs created, public/private investment ratio, owner equity, and project feasibility
 - Special notes: Requires creation/retention of one job per \$25,000 invested, LMI persons to benefit
- Ohio Enterprise Bond Fund
 - Project type: Provides funding for land and building acquisition, construction, expansion or renovation, and equipment purchases for projects \$1.5 million to \$10 million in size
 - Rate/terms: Fixed rate for up to 20 years based on S&P A- for up to 90% of total project amount
 - Special notes: Must show repayment/management capabilities, document job creation/retention
- Ohio Qualified Small Issue Bond Program
 - Project type: Low interest financing for small manufacturing facilities
 - Rate/terms: Total capital expenditures cannot exceed \$10 million in a political subdivision, 15% of bond amount must be for rehabilitation of structure/equipment, maximum of 25% of bond proceeds for land acquisition, maximum of 25% of bond proceeds used for ancillary core manufacturing. Bonds are issued at interest rates historically between 3/4% and 3% below prime lending rates
 - Special notes: Relates to core manufacturing and ancillary facilities
- Mini-Loan Guarantee Program
 - Project type: Provides loan guarantees for fixed assets for small business start-up or expansion for projects \$100,000 or less
 - Rate/terms: Up to 45% guarantee of eligible bank loan, interest rate on state guaranteed portion of loan is 5.5% (current), maximum term of 10 years
 - Special notes: Small business with 25 or fewer employees

- 166 Loan Program
 - Project type: Loans to ongoing manufacturing firms for acquisition, renovation, purchase of machinery, or equipment
 - Rate/terms: Minimum loan of \$350,000 to a maximum of \$1 million, equal to or less than private lender funding; maximum rate of 2/3 prime; private lender required and 10% owner equity
 - Special notes: Requires creation/retention of at least one job per \$35,000 invested
- Small Business Administration (SBA) 504 Loan Program
 - Project type: Loans to small business for job creation/retention
 - Rate/terms: Minimum loan of \$50,000, maximum \$1.2 million not to exceed 40% of eligible costs; minimum 50% of project costs in private funding, minimum 10% owner equity; 10 year term for machinery/equipment, 20 years real estate; rate approximately 1% over U.S. Treasury bond rate
 - Special notes: Requires creation/retention of at least one job per \$50,000 invested
- Community Improvement Corporation (CIC) Industrial Revenue Bonds
 - Project type: Financing for fixed assets and equipment for manufacturing projects
- Microenterprise Business Development Program
 - Project type: Assist microenterprises that are for-profit, 5 or fewer employees, one of whom is the owner
 - Rate/terms: \$25,000 maximum grant
 - Special notes: Program pending
- Buckeye Fund Loan Program
 - Project type: Loans to ongoing firms in commerce, manufacturing, research/development, and distribution
 - Rate/terms: Blends the 166 Direct Loan with the Ohio Enterprise Bond Fund
- Pollution Prevention Loan Program
 - Project type: Loans to ongoing manufacturing firms for pollution prevention equipment
 - Rate/terms: Minimum loan \$25,000, maximum \$350,000 up to 75% of eligible costs; private lender and 10% owner equity required; up to 7 year term; rate at 2/3 prime
 - Special notes: Must demonstrate job retention
- Business Development 412 Account
 - Project type: Grants to induce companies (primarily manufacturing, research/development, high technology, corporate headquarters, and distribution) to move forward with projects involving on- and off-site improvements
 - Rate/terms: Must be “last resort” for funding
 - Special notes: Substantial local support and participation required. Job creation/retention required
- Roadwork Development 629 Account
 - Project type: Grants to induce companies (primarily manufacturing, research/development, high technology, corporate headquarters, and distribution) to move forward with projects involving public roadway improvements.
 - Rate/terms: Must be “last resort” for funding
 - Special notes: Substantial local support and participation required. Job creation/retention required. Engineering eligible.

- ❑ Ohio Industrial Training Program
 - Project type: Funding for manufacturing businesses for orientation, training, and related items
 - Rate/terms: Up to 50% funding. Job creation/retention required
- ❑ Manufacturing, Machinery, and Equipment Grant
 - Project type: Calculated in the same manner as the former tax credit program.
 - Rate/terms: Machinery and equipment must be new to Ohio, retooling qualifies if costs are capitalized for federal tax depreciation purposes
- ❑ Housing Related Programs
 - Homebuyers Assistance: Designed to assist moderate income families in making the transition from rental to homeownership. Qualified homebuyers are provided with down payment and closing costs required by private mortgage financing.
 - Housing Rehabilitation: Rehabilitation assistance may be through a deferred loan, low interest loan, or a combination thereof.
 - Emergency Home Repair: Supplies funds for emergency repairs for one or two deficiencies that may represent a threat to health and safety.
 - Infrastructure Loan: LMI homebuyers are offered a 0% interest loan to upgrade a well or on-site sewage system that has been mandated by the County General Health District.

Tax Credits

- ❑ Ohio Job Creation Tax Credit (program changes to occur in 2008 due to CAT)
 - Project type: Refundable tax credit against Ohio corporate franchise/income tax
 - Rate/terms: Tax credit (up to 75%, up to 10 years) based on creation within 3 years of at least 25 new full-time jobs with minimum of 150% of federal minimum wage or 10 jobs at 400% of the federal minimum wage. Must maintain operations for twice the term of the credit
- ❑ Tax Increment Financing (TIF)
 - Project type: Permits payments in lieu of real property taxes to finance public infrastructure directly supporting a project with a “public purpose”
 - Rate/terms: Up to 75% of real property taxes can be exempted up to 10 years or up to 100% and 30 years with school board approval; payment in lieu of taxes required
 - Special notes: Program subject to local legislative discretion
- ❑ Research and Development Investment Tax Credit
 - Project type: Designed to encourage Ohio’s corporations to invest in increased research and development activities
 - Rate/terms: Nonrefundable tax credit. Will transfer to cover CAT on 2008
 - Special notes: Any excess tax credit not used in the taxable year in which it is earned may be carried forward for 7 years
- ❑ Research and Development Sales Tax Exemption
 - Project type: Sales tax exemption for machinery and equipment used in research and development
 - Rate/terms: Qualified research and development activities only
- ❑ Technology Investment Tax Credit
 - Project type: Offers a variety of benefits to taxpayers who invest in small research and development oriented firms

- Rate/terms: Maximum credit of \$37,500 per investment applied to personal income tax; annual dividends and interest payments combined may not exceed 10% of amount invested
- Special notes: Business must be focused on research and development technology
- Manufacturing and Machinery Sales Tax Exemption
 - Project type: Provides an exemption from state and county sales tax for companies that purchase machinery and equipment for manufacturing activities
 - Rate/terms: Provides significant tax savings due to exemption
 - Special notes: Includes machinery, equipment, supplies, and fuel used in manufacturing operation
- Warehouse Machinery and Equipment Sales Tax Exemption
 - Project type: Provides an exemption from state and county sales tax for companies that purchase eligible warehousing equipment.
 - Rate/terms: Provides significant tax savings due to exemption
 - Special notes: Includes machinery and equipment for warehousing, distribution, and direct marketing activities
- Warehouse Inventory Tax Exemption
 - Project type: Exemption from personal property tax on qualifying inventory
 - Rate/terms: 0%
 - Special notes: Exemption only applicable as long as there is tangible personal property tax assessed on inventory
- Ohio Export Tax Credit
 - Project type: Non-refundable franchise tax credit for increased export sales
 - Rate/terms: 10% tax credit on pre-tax profit from increased export sales. Ohio payroll or property values must have increased over previous 3 years
- Miscellaneous Economic Development Tools
 - Community Reinvestment Area (CRA): A CRA involves the exemption of local real property tax for new location/expansion by the county or a municipality within a specific territory. The abatement may be up to a 100% exemption (maximum to 15 years on new construction or 12 years for major renovation) of the value of the property improvement.
 - Joint Economic Development Districts (JEDD): JEDDs are special purpose districts allowed under Ohio law that involve the creation of a contract between a municipality and a township. JEDDs permit the levying of a district-wide income tax and the provision of municipal services in unincorporated areas. Except for limited circumstances, each contracting party must be contiguous to at least one other contracting party. The territory included in a JEDD must comply with the following requirements: the JEDD must be located within the territory of one or more of the contracting parties and may consist of all of that territory; the territory may not include existing residential areas or areas zoned for residential use; and the area may not include any land owned or leased to a municipal corporation or township, unless such municipal corporation or township is a contracting party or has consented to the inclusion of that land within the JEDD.
 - Cooperative Economic Development Agreements (CEDA): A CEDA is a contract authorized under Ohio law between one or more municipalities and townships for the purpose of facilitating economic development within the affected territory. A county may also be a party to a CEDA, with the consent of the other parties. The agreement

- may address, for example, the provision of joint services and permanent improvements, payment of service fees, issuance of bonds or notes including industrial revenue bonds, limitations on annexation, and limitations on tax abatements.
- Enterprise Zones: An Enterprise Zone is an area in which businesses may receive tax incentives in the form of tax exemptions on eligible new investments. A county or municipality may create such zones, however, a county zone requires the consent of the affected municipality or board of township trustees. Approval of the Ohio Department of Development is required as a part of the zone designation process. Within an unincorporated area, the tax exemption of real and/or personal property assessed values may be up to 60% for a maximum of ten years or an average of 50% over the term of the agreement on new investments in buildings, machinery/equipment and inventory and improvements to existing land and buildings for the specific project. In municipalities, exemption of real and/or personal property assessed values up to 75% for a maximum of 10 years or an average of 60% over the term of agreement is allowed.
 - Foreign Trade Zones: A Foreign Trade Zone is a site within the United States aligned with a U.S. Customs Service port of entry where merchandise is considered to be in the international commerce stream. Foreign and domestic merchandise may enter the zone without formal customs entry or the payment of customs duties. Exemption from state/federal use and excise taxes and personal property taxes on inventory is also available. There are two types of zones: general purpose and sub-zone. A general purpose zone includes multiple users (industrial park) and a sub-zone represents one plant or firm.
 - Port Authority: A port authority is a governmental agency created by a county and/or municipality under Ohio law. Port authorities have expanded their role in recent years to assist in local and regional economic development efforts. A port authority may act on behalf of a borrowing entity as a conduit issuer of special obligation revenue bonds. A port authority's development finance activities are self-supporting and operate solely on the revenues generated from financing transactions.

The following section provides an overview of state and local incentives and services available to businesses and/or local governments in order to advance economic development. This list is not meant to be exhaustive. In many cases a combination of these tools may be used in conjunction with one another to reach the objectives of the township.

State Business Incentive Loans & Grants

The Ohio Department of Development administers several loan and grant programs that are available to Ohio Businesses. Please visit their website for complete details: www.odod.state.oh.us. The following represents a select few loans or grants that Ohio businesses may apply directly for or in conjunction with the local government.

- Ohio Enterprise Bond Fund:
 - Provides loans for land and building acquisition, construction, expansion or renovation and equipment purchases for eligible businesses.
- Volume Cap Program:
 - Federally authorized programs providing authority to issue tax-exempt bonds for select private (non-governmental) activities.

- 166 Direct Loan:
 - Provides loans for land and building acquisition, expansion or renovation, and equipment purchase.
- Regional 166 Direct Loan:
 - Provides loans for land and building acquisition, construction, expansion or renovation and equipment purchases for eligible businesses. Twelve local economic development agencies administer the program.
- Research & Development Investment Loan Fund Program:
 - The Research and Development Investment Loan Fund (R&D Fund) was created to promote economic development, business expansion and job creation by encouraging private-sector R&D investments. The R&D Fund provides assistance in the form of a low-interest loan, partnered with a tax credit.
- Linked Deposit Program:
 - Uses state deposits to encourage lending institutions to make low interest fixed asset and working capital loans to businesses with fewer than 150 employees.
- Ohio Qualified Small-Issue Bond Program:
 - Provides low-interest financing for small manufacturing facilities locating or expanding in Ohio that have or can obtain allocations of volume cap. Financing may be used for capital expenses and up to 2% of issuance costs. Bonds can be used to finance up to 100% of the cost of land, buildings and new equipment in new construction, and expansion or rehabilitation of industrial facilities. Interest rates are between $\frac{3}{4}$ and 3% below prime rate.
- Clean Ohio Revitalization Fund:
 - Provides grants and loans to Ohio counties, municipalities, townships and port authorities for the cleanup of polluted properties so they can be restored to productive uses. Program is focused on both economic and environmental benefits of cleanup and projects that generate significant economic and community impact. Grant or loan to any one project cannot exceed \$3 million, and there is a 25% match.
- Research and Development Investment Fund:
 - Designed to position Ohio to compete aggressively for private-sector R&D investments that will create high-wage jobs. The \$200 million fund targets large investments from companies with significant assets and sales. The fund will be used aggressively to pursue research and development operations/facilities and fund the cost of capital purchases. The program funds 50% of eligible capital costs for companies making a minimum investment of \$10 million in fixed assets, and provides loans ranging in size of \$5 – \$25 million. Loan term is established to meet individual project needs but will fall within the 5 – 20 year term with a 3% – 5% fixed rate.
- Innovation Ohio Revolving Loan Fund:
 - The Innovation Ohio Revolving Loan Fund is a \$100 million revolving loan fund designed to help existing companies and new companies to the State invest in fixed assets for the purpose of developing new commercial products. The program finances fixed assets such as M & E, building improvements, computers and off the shelf software. Loans range from \$250,000 – \$5 million and finance 50% – 75% of total project costs.

Local Business Services

The Geauga County Department of Community and Economic Development provide a variety of services to existing and/or prospective businesses within Geauga County. Local governments may also be eligible for these services as well. Please visit their website for more details at www.geaugaced.com. Some of the services available include:

- ❑ Low interest loan funds to local businesses
- ❑ Community Development Block Grant funds including:
 - Water & sewer grant program
 - Formula program funds
 - Economic development program grants
 - Housing program grants
 - Fair housing program
- ❑ Database of available industrial building sites
- ❑ Industrial Revenue Bonds (IRB) capability in conjunction with the Geauga County Community Improvement Corporation (CIC)
- ❑ Community Reinvestment Area (CRA) tax incentive program
- ❑ Assistance locating Ohio Incentive Programs such as:
 - Job creation tax incentive programs
 - Manufacturing Equipment Tax Credit
 - State of Ohio Economic Development Financing

Local Employment Resources

- ❑ WorkPlace is a consortium, or partnership, of six local agencies. The partners are: Geauga Job and Family Services, Auburn Career Center, Geauga Educational Service Center, Kent State University-Gauga Campus, the Ohio Department of Job and Family Services (formerly OBES), and the Ohio Rehabilitation Services Commission. All six agencies are involved in the business of supplying employment and training services to the residents of Geauga County. Most of these services are free. Website www.geaugajfs.org/workplace.htm
- ❑ Community Improvement Corporation (CIC)

Special Economic Districts

Ohio allows for the creation of several special economic districts that can be used to generate revenue for project development or to facilitate the equitable sharing of tax revenues and the provision of services. Some of these tools include:

- ❑ Joint Economic Development Districts (JEDDs) – between municipalities, townships and/or unincorporated areas
- ❑ Cooperative Economic Development Districts (CEDAs) – between municipalities and townships that can include counties
- ❑ Tax Increment Financing (TIFs) – can be used by municipalities, townships, and counties

County and Regional Plans and Reports

The following county and regional plans may be consulted by the township in order to obtain more information on land use, demographics, economic development, transportation matters, and environmental issues that may affect the community.

Geauga County General Plan: contains extensive information relating to census data, population and housing projections, housing needs, land capability/suitability for development, environmentally sensitive areas, parks and open space, historic and cultural resources, transportation, and other issues relating to the county. Available at:

www.co.geauga.oh.us/departments/planning/general/tc.pdf

Geauga County Farmland Preservation Plan: includes agricultural census data, mapping of prime soils identification of agricultural security areas, goals and objectives. Available at:

www.co.geauga.oh.us/departments/planning/farmland/plan/farmland.htm

Geauga County Economic Analysis Plan: contains economic data about the county from the U.S. Census Bureau and other resources, provides a description of local and state programs, and sets forth recommendations. Available at:

www.co.geauga.oh.us/departments/planning/econ_analysis/index.pdf

Geauga County Industrial Directory: a detailed listing of industrial firms in the county provided by township and municipality; includes points of contact, products produced, and annual sales. Available at: www.co.geauga.oh.us/departments/planning/industrial.pdf.

Chagrin River Watershed TMDL Report: the Total Maximum Daily Load (TMDL) program established by the federal Clean Water Act is a quantitative assessment of water quality problems. It relates to the amount of pollutant reduction required to meet water quality standards, allocates pollutant load reductions, and actions that may be needed to restore the affected watercourse. Available at: www.epa.gov/region5/water/wshednps/topic_tmdls.htm.

Chagrin River Watershed Action Plan: The plan was devised by CRWP and includes an inventory of watershed resources and identifies and evaluates issues within the watershed. Goals are identified to protect high quality resources and to address problem areas. Available at:

www.crwp.org/watershed_action_plan/watershed_action_plan.htm

NOACA Connections 2030: is the regional transportation plan to the year 2030 that outlines transportation issues, projects, goals and objectives for the five-county area of Cuyahoga, Lorain, Lake, Medina, and Geauga Counties. Available at: www.noaca.org/2030connections.pdf.

APPENDIX 2

PRELIMINARY MARKET ASSESSMENT AND DEVELOPMENT OPTIONS FOR NEWBURY TOWNSHIP TOWN CENTER

Prepared by the Cobalt Group, Inc. – February, 2008

Background and Project Scope

The Cobalt Group was engaged in January 2008 to conduct a preliminary market assessment and prepare a summary of development options for the town center area. The focus of the preliminary market assessment included exploring optimum uses for a site located on S.R. 87 adjacent to the Newbury School Building and the integration of the site into a comprehensive development strategy for the Township. This assessment also incorporated the planning work completed to date by the Cleveland Urban Design Collaborative (CUDC) who had been engaged to develop a Town Center Plan for the Township in 2007.

The scope of work involved:

- Conducting Key Leader Interviews with economic development, planning and real estate professionals in Geauga County and Northeast Ohio to gather local economic data relevant to this project including:
 - Anita Stocker, Director, Economic Development, Geauga County
 - David Dietrich, Director of Planning, Geauga County
 - Michael Cantor and Damon Taseff, Allegro Realty Advisors
 - Farley Helms, Colliers Real Estate Brokers
 - Cindy Sayre, Business and Property Owner, Newbury Township
 - Terry Schwarz, Cleveland Urban Design Collaborative (CUDC)
 - Amy Holthouse Brennan, Chagrin River Watershed Partnership
 - Linda Nemeth, Director, Office of Tourism, Geauga County
- Gathering and analyzing demographic data and preparing a “community investment prospectus” which included:
 - Preparing a Lodging and Meeting Accommodations Matrix for a geographic area within a 20-mile radius of the study site (See Appendix 3);
 - Reviewing Key Leader Interview Summary Data from the CUDC’s town planning process; and
 - Collecting and analyzing secondary demographic data from the State of Ohio, Geauga County and local economic data sources (See Appendix 3).

- Determining regional influences likely to increase or decrease the project’s likelihood of success;
- Understanding and/or reviewing existing development plans/investments or related studies underway for Newbury Township, Geauga County, and the properties or public infrastructure located in the vicinity of the subject property.
- Preparing development options/scenarios that reflect the optimum land/building use for the subject property and the next steps for developing the site given the market and site conditions.

Trends and Findings

While the process for executing this preliminary market assessment began with specific focus on the Town Center area, the assessment approach involved taking a regional approach to market analysis given the regional nature of retail, hospitality and commercial development in Northeast Ohio. The market assessment philosophy of approach utilized for this assessment process embraced three basic principles for development:

1. Identify, manage and leverage existing natural and built environment assets;
2. Acknowledge existing site and market conditions and constraints; and
3. Identify strategies that leverage private stakeholder needs and investments.

The findings of this assessment are clustered in the following categories:

- Existing Conditions (Natural and Built Environment)
- Regional Influences and Market Conditions
- Assets and Opportunities
- Next Steps

Existing Conditions (Natural and Built Environment)

- Newbury Township is located in the Chagrin River Watershed. There are several secondary tributaries that traverse the Township thereby creating a patchwork of sensitive development areas. These environmental conditions require additional regulatory approvals for development to occur.
- Because of its location and existing infrastructure, physical development in the Township, particularly development with unit density, is highly constrained by the level of access to sufficient water, storm water management, and sanitary sewer infrastructure.
- While existing commercial corridors provide adequate access to the Township from local and regional destinations (both along major east-west and north-south corridors), any major development that is likely to increase traffic volumes and circulation will require roadway improvements such as widening for additional turning lanes and signaling.

- While multiple opportunities exist to connect park amenities to each other and to new trails that connect major park amenities like Punderson State Park, an overall land use strategy is needed to determine the density and layout of future residential and commercial development.
- Access to natural areas exists, but should be better identified at trailhead and park locations.
- Retention and growth of commercial land uses has been able to occur because individual business and property owners have made site-specific improvements to accommodate their own infrastructure needs (e.g., water, sewer, storm water management). However, future infrastructure improvements are much more likely to be more highly regulated and costly given current local, state and federal regulatory policies.
- While much attention is paid to retaining and helping Geauga County businesses grow in the County, many businesses move to more mature communities within the County when they have growth/expansion needs. Business growth in the County continues to remain relatively flat.
- During the data collection phase of the Town Center planning activities, “a lack of identity” was identified as a major issue/challenge for the Township. Unifying the built environment is a factor to consider when planning for physical development projects, but more importantly must be integrated into the planning for major public infrastructure improvements.
- Related to the previous item, making roadway streetscape improvements on S.R. 87 is an opportunity that would begin to unify the Town Center district with a common physical identity and appearance (while other studies are underway or infrastructure plans are being developed).

Regional Influences and Market Conditions

- While Newbury Township is situated in central Geauga County and along two major state routes, data from the Town Center planning process indicated that the Township is perceived as a “pass-through” community and not a destination.
- Local daily traffic counts for the five major corridors near Newbury Township do not represent significant volume to create a “regional retail node” at S.R. 87 and Auburn Road (source of traffic counts: NOACA) given the other major traffic generator nodes (and established retail nodes) which exist in the county including Chester Township, Chagrin Falls and Chardon.
 - S.R. 87 and Caves – 5,880
 - S.R. 87 and S.R. 306 – 11,230
 - S.R. 87 and Munn Road – 7,260
 - S.R. 87 and Auburn Road – 7,875 (north) and 5,360 (south)
 - S.R. 87 and S.R. 44 – 7,040

- Exploratory activities regarding tourism and commercial development activities in the Town Center uncovered several regional conditions that can influence or impact development in Newbury Township including, but not limited to:
 - As indicated during key leader interviews, most business stakeholders identified that their business customers, vendors and suppliers prefer to stay near more dense regional commercial districts in order to enjoy a wider selection of lodging, shopping and restaurant amenities.
 - The local hotel/lodging market is fairly saturated with over two dozen lodging and hospitality enterprises that exist within a 20-mile radius of the study site. Research into the strength of this market indicates that the “lowest average nightly rate” falls into the “low and moderate” price range that may not support a financing proforma for a new facility in Newbury Township.
 - The Punderson State Park facility presents a unique public-private partnership opportunity for the Township. Rather than pursue a strictly private commercial enterprise in the Town Center area, there is an opportunity to explore the development of a more networked regional concept for Punderson and its lodging and outdoor amenities.
 - Interviews with lodging real estate/site selection professionals familiar with the Northeast Ohio market indicated that the market is highly dependent on concentrated development and special attractions to support new investments. One major property in an adjacent county with similar demographics is looking for a buyer and/or an adaptive re-use plan.
 - Because of stagnant population trends in Northeastern Ohio, demand for retail and related services is highly dependent on existing market demographics/supply, not projected growth. Furthermore, the tightening of credit in the real estate market is causing a delay or cancellation of retail and lodging investments. Local and regional investors expressed caution when asked about the market demand for a high-density, mixed-use development in central Geauga County that is not near a highway interchange.
 - Other regional development conditions may pose competition for Newbury Township including those in Mentor (Lake County), Aurora/Gauga Lake vicinity, Streetsboro, and Solon (Cuyahoga County). The closing of the Geauga Lake complex is likely to create market surplus for lodging establishments in both Aurora and Streetsboro. An adaptive reuse of the complex is likely to take several years.

- Indicators of the continued decline in population and a shifting of residents from older suburban communities to ex-urban/rural communities in Northeastern Ohio is causing a consolidation of retailers and the shuttering of “big box” retailers in older suburban retail districts.

- The housing market crisis will continue to add surplus housing to the regional market (new and existing), and will constrain new housing development for the foreseeable future. Several reputable homebuilders/developers have filed for bankruptcy protection because of slow absorption rates of new units and maturing acquisition and development (A&D) loans.

- Overall market conditions in Ohio can be characterized as site specific and heavily dependent on tangible economic development investments by public and private entities.

Assets and Opportunities

There are multiple assets and investments that Newbury Township can leverage and integrate into a larger, long-term development plan. They include, but are not limited to:

- Punderson State Park
- Kinetico
- Geauga County Park District
- Oberland Park
- Nancy Panzica Property
- Sayre Retail Property
- Chagrin River Watershed Partners
- Geauga County
- Newbury Schools
- Newbury Township Leaders Commitment to Responsible Development
- Other Newbury Township businesses
- Geauga County Sewer District
- Western Reserve Nature Conservancy

Newbury Township has several assets to leverage. It is within this context, that the initiative to create a Town Center Plan is critical to a planned, orderly development and future for the community.

The NOACA retail classification on the following page outlines the types of retail that the Township should consider when identifying opportunities for retail and commercial uses. The table “Potential Retail and Commercial Uses” outlines specific suggestions for the Township that are the most likely types of retail to succeed in a new mixed-use retail/commercial development at the intersection of S.R. 87 and Auburn Road. A blend of “local” retail uses that meet the need of current County residents, home-based business owners and tourists/visitors to the County should be pursued. Given the overall market conditions in Northeast Ohio, the Township should seek to pursue uses/tenants that meet the demands of existing traffic to the area.

NOACA Classifications System for Retail/Commercial Establishments

<u>Retail Category</u>	<u>Retail Classification</u>	<u>Typical Establishments</u>
(A) Convenience Goods and Services	Supermarkets	Supermarket
	Other Food	Delicatessen; convenient foods; meat, poultry, fish, produce markets; bakers; candy/nut stores; dairy product stores; beverage stores
	Food Service	Restaurants; cafeterias; sandwich, donut shops; taverns; liquor; catering halls
	Drugs	Drug, discount drug stores
	Other Convenience Goods	Hardware, paint, wallpaper stores; garden, flower shop; record, video stores; key, card, gift shops; bookstores; stationary shops; beauty supply stores
	Convenience Services	Beauty, barber shops; watch, shoe repair stores; dry cleaners, Laundromats; photo studios; appliance and household repair, travel agencies
(B) Shopping Goods and Services	Department Stores	Department stores
	Other General Merchandise	Discount, junior department, variety stores
	Clothing and Shoes	Men's, ladies', children's wear stores; shoe stores; millinery, fur, and bridal shops
	Other Shopping Goods	Yard goods, sporting goods, photo equipment, musical instruments, jewelry stores; pet shops; toy stores
	Furniture	Furniture, appliance, carpeting; radio, TV, stereo stores; kitchen, bath accessories; lamp stores; computer sales and accessories
(C) Automobile Sales, Parts and Services	New Auto Sales	New car dealerships; used car lots directly adjacent to and part of new car dealership
	Used Auto Sales	Used car lots
	Auto Parts Sales	Auto parts stores; tire, batteries and accessories
	Auto Repair	Auto repair garages other than gasoline service stations; auto/truck rentals
	Gas Stations	Gasoline service stations, with or without repair facilities; car washes
(D) Commercial Amusements	Enclosed Amusements	Indoor movie theaters, auditoriums; bowling alleys; billiard parlors; roller/ice skating rinks; racquet clubs; health clubs
	Social Halls	Dance halls, private; semiprivate social halls
(E) Other Retail	Hotels, etc.	Hotels, motels, tourist courts
	Funeral Homes	Funeral Homes
	Animal Hospitals	Animal hospitals, kennels
	Training Schools	Dance studios, music stores; beautician, barber schools
	Business Services	Photocopying, addressing stores; linen, uniform supply stores
	Unidentified	Retail establishments of an unidentifiable use
(F) Vacant Retail	Existing Vacant	Vacant stores and offices
	Incomplete Vacant	Retail structures under construction
(G) Office Space	Local Office	Banks; finance companies, insurance, real estate, medical, health services; legal, engineering, management consultant offices

Next Steps and Recommendations

Based on the preliminary market assessment conducted, the “next steps” outlined in the following section have been written and intentionally integrated with the development options that should be considered as separate, but parallel, next steps (decision points) for Newbury Township’s leaders and residents.

Option A – Infrastructure and Process for Development

The Geauga County Sewer District’s Water Resources and Sewer Study underway currently needs to be completed in order for property owners and prospective tenants to make informed decisions about the optimum land use, density, and scale of development in the Township and in the Town Center area. Because any significant retail, commercial or hospitality use will need adequate water and sewer capacity, infrastructure needs should be defined in order to be calculated into the site development costs. Sources of significant public subsidy to finance these improvements do not exist at the local or state level at this time.

However, regardless of the Study’s findings and recommendations, the Town Center site should be planned for and developed in manners consistent with the outcome of the discussion called for in “Option B.”

Option B – Community Image and Land Use and Preference

Two major findings have emerged during the CUDC’s Town Center Planning process and this preliminary market assessment process.

While the Township and the County tend to favor lower density and less development, development nonetheless has occurred throughout the County over the last 25 years. It is within this context that the community of Newbury Township must first formally determine its “community preference” for density in the future with regards to all types of development (e.g., residential, greenspace, commercial, retail, industrial, etc.). This intentional choice will help guide the Community’s preference for density and scale of development, which will in turn narrow the development options for property owners. New roadways, greenspace connections, and commercial uses must be planned for together and with design principles that complement, not compete, with each other.

The planning processes’ second finding has been that the Township is lacking a distinctive image or identity, and in fact, may have to overcome the image of being a “drive-through on your way to any” community. Decisions about land use and density can help define the Township’s image much more than a generic description of being “centrally located in Geauga County.” Location and image are critical to maximizing development investments and leveraging intangibles such as community pride or desirability as a “community of choice” for residential dwellers and/or businesses.

It is within this context that the community image of Newbury should not only promote location, but include high quality local retail offerings not readily available within a 10-mile radius. These offerings are outlined in the table below.

Retail and commercial development is more likely to be sustainable if it presents a cluster of “local” amenities and creates convenience for residents and businesses in the surrounding area. Ideally, this cluster of local retail options should build off of other high-traffic generating businesses and uses in the area such as Punderson State Park.

Potential New Retail and Commercial Uses

(Local Niche vs. Existing Regional Options)

	<u>Newbury Twp. (Local)</u>	<u>Suggested Local Retail/Commercial Niches</u>	<u>Regional</u>
Appliances/Furniture	Y	Geauga Co./Amish furniture; kitchen and bathroom cabinetry showroom	Y
Art Galleries/Supplies, Craft and Gift Shops	Y	Artists (cooperative) gallery	Y
Attorneys	Y	Local law offices, mediation services, county child support office	Y
Automobile Parts/Repairs	N		Y
Automobile Sales	Y		Y
Bakeries	Y	Amish pie/baked goods or commercial bread maker with small retail store	Y
Barber Shops and Beauty Shops	Y	Family barber and hair salon	Y
Book Stores	Y	Merchandised with local tourism board “welcome center”, public restrooms, parking, map store	N
Catering	Y	Catering kitchen for a local caterer with small retail café	N
Churches	Y		Y
Communications and Electronics	N		Y
Community Based Organization	Y	See “bookstore” above	Y
Construction and Trades	N		Y
Cultural Club/Center	N		Y
Dentist	Y	Second office for orthodontist or dentist	Y
Discount Stores	N		Y
Dry Cleaners, Tailors and Dressmakers	Y	Recruit local clothing designer wo needs studio space and small retail area	Y
Entertainment	Y	Quality tavern/restaurant which features local, live entertainment	N
Financial Institutions	Y	Research other banks in need of new retail space	Y
Florists	N		Y
Funeral Homes	N		Y
Furniture Stores	Y	Geauga Co./Amish furniture; local craftsman	Y
Gas Station	N		Y
General Industry	N		Y
General Office	Y	Create small business incubator space for businesses <10 employees	Y
General Office/Industry	N		Y
General Office/Residence	Y	Research number of home-based businesses in the county to determine need for office expansion space	Y
General Office/Retail	Y		Y
Groceries, Markets, Delicatessens	Y	Create a year-round farmer’s market with unique retail offerings (local to county , wine, meats, etc.)	Y

Hardware Stores	Y	Local hardware store (with national brand affiliation)	Y
Health Products	Y	Identify opportunities for “organic” products	N
Laundromats	N		Y
Medical Centers and Doctor's Offices	Y	Second office for larger practices	Y
Music and Records	N		N
Pharmacies	N		Y
Photographers	Y	Identify opportunities for studio and/or gallery space	Y
Printers and Shipping Store	Y	Identify opportunities to recruit national brand facility	Y
Real Estate	Y	Identify opportunities for local branch office	Y
Restaurant	Y	Identify small “themed” locally-owned establishments	Y
Specialty Retail	Y	Create small spaces for Northeast-based retailers to open new location	Y
Specialty Services	Y	“See general office”	Y
Sporting Supplies & Equipment	N		Y
Sports Facilities	N		Y
Tavern	Y	“See entertainment”	Y
Thrift Stores	N		Y
Transportation	Y	Identify opportunities for livery (limousine) service headquarters; regional transportation node/pick-up location for students, older adults	Y
Travel Agencies	N		N
Union Office	N		N

Option C – Zoning Review

In addition to pursuing Options A and B, the Township should conduct a zoning review and make changes to the existing code which reinforce and promote the desired outcomes determined in Options A and B decision-making processes. Currently, the zoning code does not support high density, urban and/or mixed use developments in a way that is optimum for creating a “sense of place” and promoting complementary land use decisions within a parcel or with contiguous parcels. The unregulated and diverse pattern of development that has emerged over the last 25 years contributes to a lack of uniformity on major corridors and a patchwork of isolated development that is a stark contrast to the community’s intrinsic rural character. The current process for seeking zoning approval and heavy reliance on zoning variances is perceived as a risk and barrier to high quality development.

Summary Statement

A land use philosophy, realistic expectations for public infrastructure improvements and a 20th century zoning code are needed for “development infrastructure” to support future development decisions in a way that is consistent with the Township leaders’ and stakeholders’ vision for a high quality, desirable community.

Regardless of the physical development opportunities on the table, the natural environment and conditions (e.g., wetlands, watershed forces, etc.) should be viewed as assets in the overall development process. In fact, these assets can help define the community’s image and desirability.

APPENDIX 3

SUPPLEMENTARY MARKET ASSESSMENT MATERIALS

Prepared by the Cobalt Group, Inc. – February, 2008

Hotel/Lodging

Facilities within a 20-mile radius of Newbury Township Town Center

Demographic

Highway Traffic Counts

Ohio County Profiles, Office of Strategic Research (ODOD) – Geauga County Profile

NEO CANDO Profile for Geauga County

NEO CANDO profile for Newbury Township

Map – Ohio Counties and County Seats

Map – Ohio Metro- Micro- Combined Statistical Areas

State/County Population Maps

Ohio County Population Density – 2000 Census

Population Distribution – 2006 Census

Percent Population Change – 1990-2006

Projected Population Change – 2000-2020

Projected Population Distribution 2020

Households – 1990-2000

Per Capita Personal Income – 2005 Census

Profile of General Demographic Characteristics

State of Ohio

Geauga County

Auburn Township

Bainbridge Township

Burton Township

Chardon Township

Chester Township

Claridon Township

Hambden Township

Huntsburg Township

Middlefield Township
Munson Township
Montville Township
Newbury Township
Parkman Township
Russell Township
Thompson Township
Troy Township

Parks/Recreation

Ohio Department of Natural Resources Division of Natural Areas and Preserves – Chagrin State
Scenic River
Ground Water Resource Map for Ohio
Ground Water Resources of Geauga County
Chagrin River Watershed – What is a Watershed?

Retail

NOACA Northeast Ohio Regional Retail Analysis – August 2007
Executive Summary/Retail
NOACA at Work in Geauga County

Housing

Gauga County Rates of Taxation – Tax Year 2006
Gauga County Real Estate Report – 2005

Business, Industry and Education

Priority Investment Areas – 2008
Ohio Department of Development Economic Development Regions
Business Starts – 2006
Manufacturing Employment – 2005 Census
Manufacturing Employment as Percentage of Total County Employment – 2005
Distribution of Exporting Manufacturing Establishments – 2006
Distribution of Largest Manufacturing Establishments in Ohio – 2006
New and Expanding Facilities Annual Average – 1997-2006

Education

Newbury Local School District 2006 – 2007 School Year District Report Card

Facilities within a 20-mile Radius of Newbury Township Town Center

<u>Name</u>	<u>Street Address</u>	<u>City</u>	<u>Rooms</u>	<u>Suites</u>	<u>Internet Access</u>	<u>Pool</u>	<u>Fitness Area</u>	<u>Restaurant/Lounge/Bar</u>	<u>Mtg. Room Capacity</u>	<u>Lowest Average Nightly Rate</u>
Renaissance Quail Hollow	11080 Concord Hambden Rd.	Painesville	180	11	Yes	Yes	Yes	No	140	\$99.00
Best Western Lawnfield Inn	8434 Mentor Avenue	Mentor	50	18	Yes	Yes	Yes	L	50	\$83.00
Days Inn Cleveland Willoughby	4145 State Route 306	Willoughby	113	2	Yes	Yes	No	No	0	\$49.00
Residence Inn Cleveland Mentor	5660 Emerald Court	Mentor	96	0	Yes	Yes	Yes	No	100	\$89.00
Super 8 Mentor	7325 Palisades Parkway	Mentor	30	0	Yes	No	No	No	0	\$50.00
Comfort Inn Mentor	7701 Reynolds Road	Mentor	133	20	Yes	Yes	Yes	No	500	\$86.00
Courtyard Cleveland Willoughby	35103 Maplegrove Road	Willoughby	82	10	Yes	Yes	Yes	R,L,B	100	\$99.00
Fairfield Inn Cleveland Willoughby	35110 Maplegrove Road	Willoughby	130	0	Dial Up	Yes	No	No	0	\$79.00
Willoughby Travelodge Cleveland	34600 Maplegrove Road	Willoughby	110	0	Yes	Yes	No	No	0	\$65.00
Baymont Inn and Suites	1421 Golden Gate Boulevard	Maple Heights	99	10	Yes	No	No	No	50	\$80.00
Comfort Inn Wickliffe	28611 Euclid Avenue	Wickliffe	124	8	Yes	Yes	Yes	R,L,B	50	\$60.00
Lake Erie Lodge	24800 Euclid Avenue	Euclid	166	0	No	Yes	No	No	50	\$65.00
Super 8 Beachwood	3795 Orange Place	Beachwood	127	0	Yes	Yes	No	No	0	\$55.00
Clarian Hotel Cleveland East/Beachwood	26300 Chagrin Boulevard	Beachwood	127	7	Yes	Yes	Yes	No	150	\$86.00
Courtyard Cleveland East/Beachwood	3695 Orange Place	Beachwood	113	4	Yes	Yes	Yes	R,L,B	100	\$109.00
Hampton Inn & Suites Beachwood	3840 Orange Place	Beachwood	139	47	Yes	Yes	Yes	No	35	\$119.00
Hilton Cleveland East/Beachwood	3663 Park East Drive	Beachwood	403	8	Yes	Yes	Yes	R,L,B	400	\$99.00
Residence Inn Beachwood	3628 Park East Drive	Beachwood	174	0	Yes	Yes	Yes	No	60	\$109.00
Extended Stay America Beachwood	3820 Orange Place	Beachwood	113	0	Yes	No	No	No	0	\$75.00
Embassy Suites Beachwood	3775 Park East Drive	Beachwood	216	216	Yes	Yes	Yes	No	240	\$149.00
Spring Hill Suites Solon	30100 Aurora Road	Solon	119	119	Yes	Yes	Yes	No	49	\$119.00
Howard Johnson Express Geneva	1715 Route 534	Geneva	53	0	Yes	Yes	No	No	100	\$55.00
Hiram Inn	6867 Wakefield	Hiram	12	12	Yes	No	No	R,L,B	200	\$89.00
EconoLodge Warrensville	4353 Northfield Road	Warrensville Hts	80	0	Yes	No	No	R,L,B	0	\$50.00
Marriot East Cleveland	26300 Harvard Road	Warrensville Hts	291	4	Yes	Yes	Yes	R,L,B	480	\$89.00
Punderson State Park	11755 Kinsman Road	Newbury	31	26	Yes	Yes	Yes	R,L,B	120	\$122.00
Aurora Inn	3 Shawnee Trail	Aurora	66	0	Yes	Yes	No	R,L,B	150	\$119.00

APPENDIX 4

NEWBURY TOWNSHIP

TOWN CENTER MASTER PLAN



*Prepared by the Urban Design Center of Northeast Ohio
September, 2008*

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by the

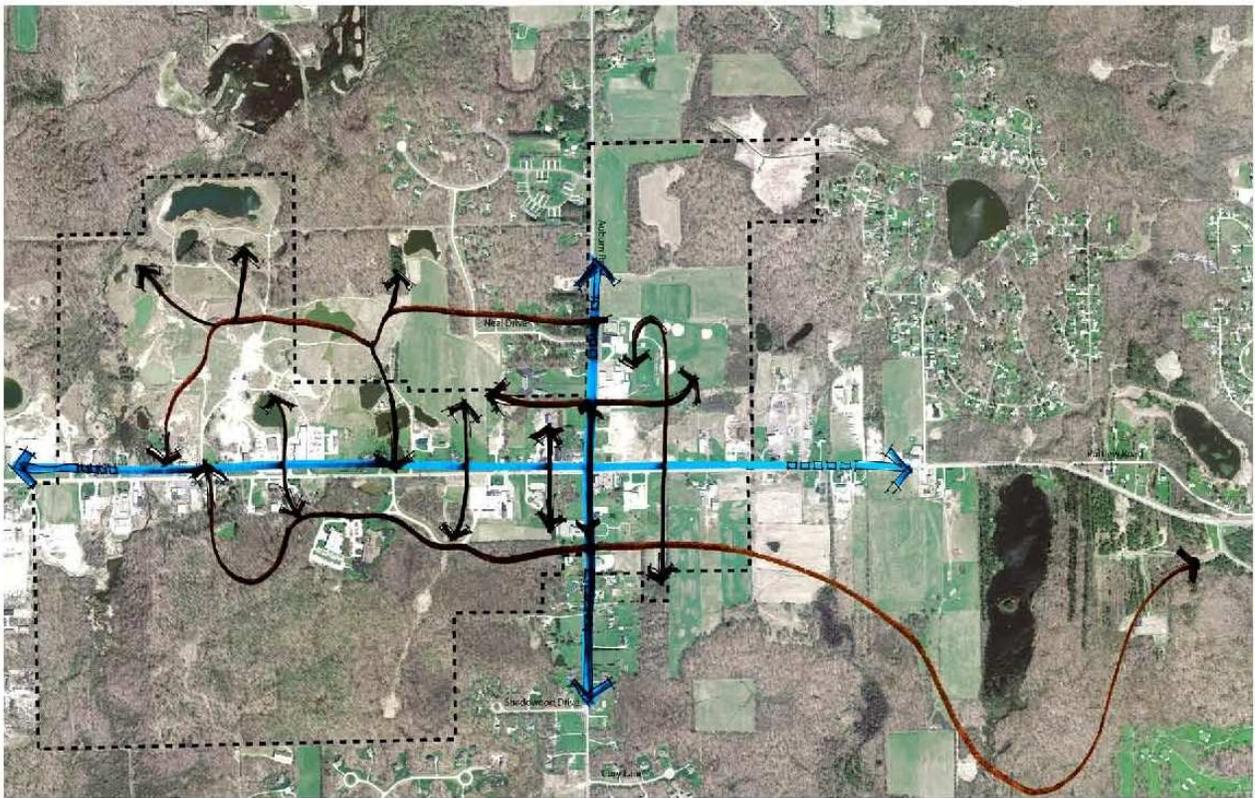
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(216) 357-3434



Newbury Township Town Center Master Plan

The 25 year master plan is a long range vision that creates a balance between market rate development and the conservation of natural assets. The plan focuses commercial development at the intersection of Auburn Road and Kinsman Road.

Options for Development outside of the main intersection range from residential conservation subdivisions to an expanded commercial/industrial option. Market forces will be the determining factor, but all the long range plan options envision a mixed use town center that has greater diversity of land use than is currently available with greater residential density within the 208 service area. In all cases, physical development is meant to be sensitive to the land and the watershed, incorporating onsite water management practices. New development should be sited respectfully out of the path of the streams, wetlands and floodplains.



Proposed Comprehensive Connection System



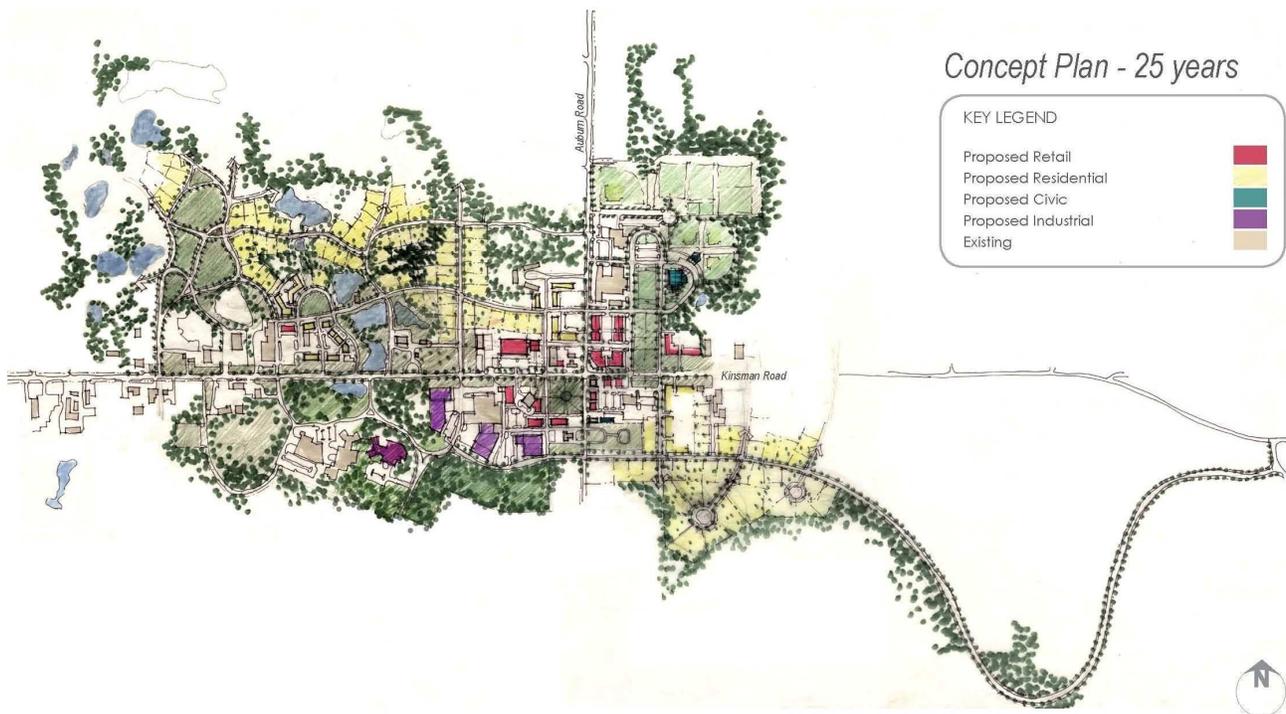
Connection and Development Potential

The Town Center Master plan envisions retaining the rural character of Newbury and building scale and setback would vary to respect the existing character of development and recent investment that will remain.

The Master Plan proposes a comprehensive connective system (see Page A4-3) as private sector development occurs, aligning new roadways and entrance paths to create a greater sense of place and reduce congestion of the main intersection that might lead to demand for further widening.

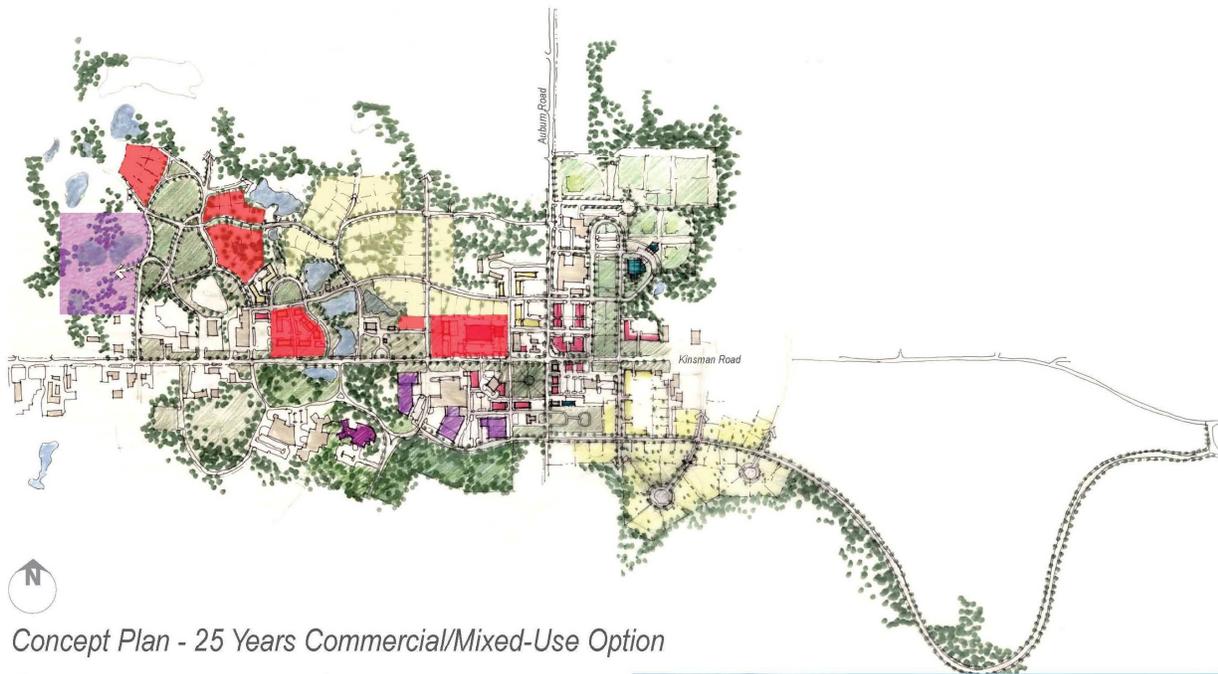


Green Network Connections



The concept plan looks at two different options for long range development. The northeast, southeast and southwest quadrants for both options are similar, but the northwest sections are completely different. Both options look at broader connection strategies through new road networks to allow the town center to act as a unit, but the residential option (see Page A4-4) envisions a large conservation subdivision of parcels organized around the existing water features and topography that currently exist.

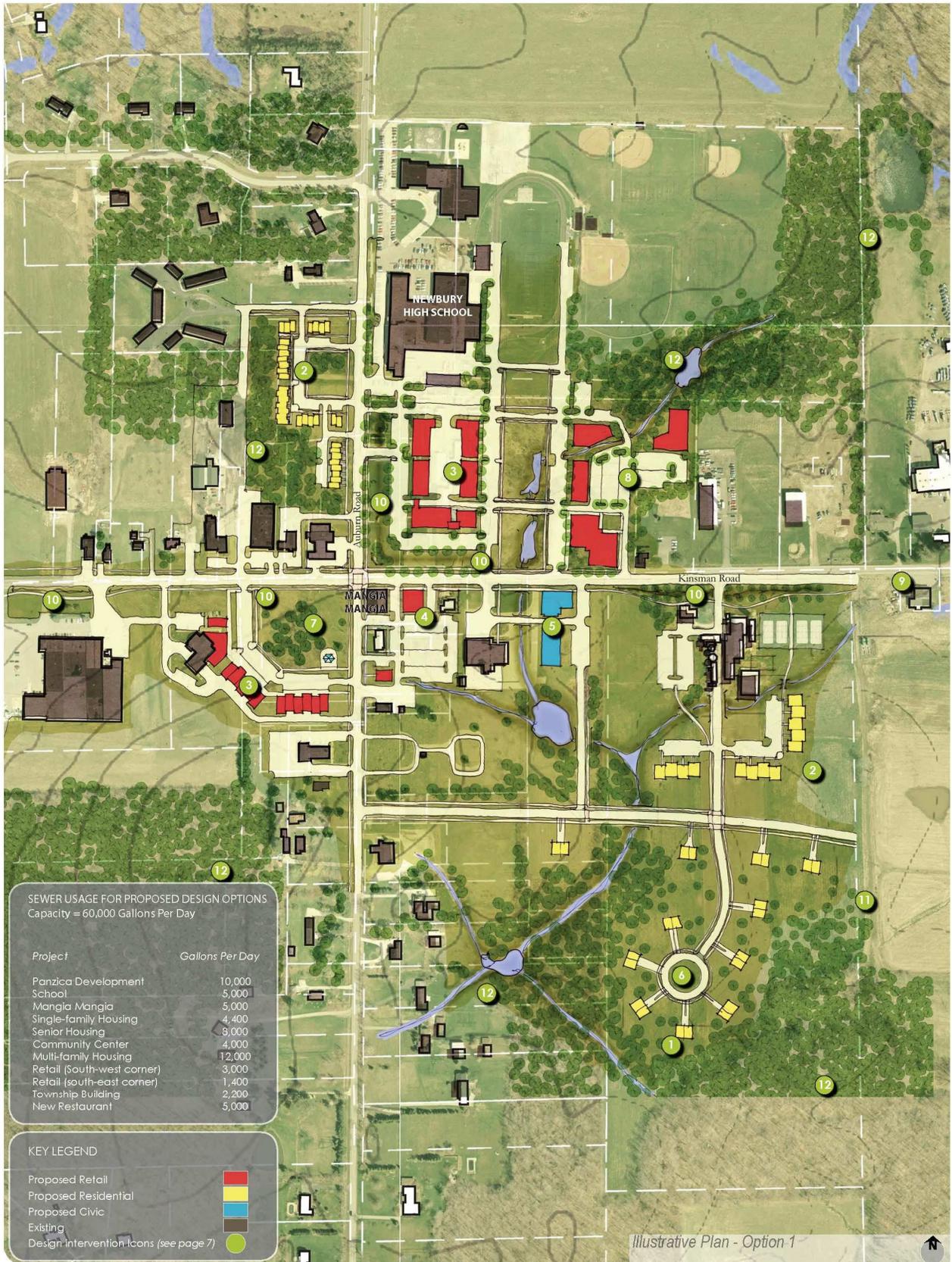
A mixed use option (below) combines commercial, light industrial and residential development. Commercial development is primarily focused along Kinsman Road, adding to the commercial mix of the phase one development option. Interior to the quadrant land uses are mixed with residential to the east, commercial development in the center and light industrial to the west (*see Future Land Use Plan Map Newbury Township, for further clarification*). The commercial and light industrial development should be clean, low impact green development that is designed with onsite storm water management practices.



KEY LEGEND	
Proposed Retail	Red
Proposed Residential	Yellow
Proposed Civic	Green
Proposed Industrial	Purple
Existing	Brown



Commercial/ Industrial Examples



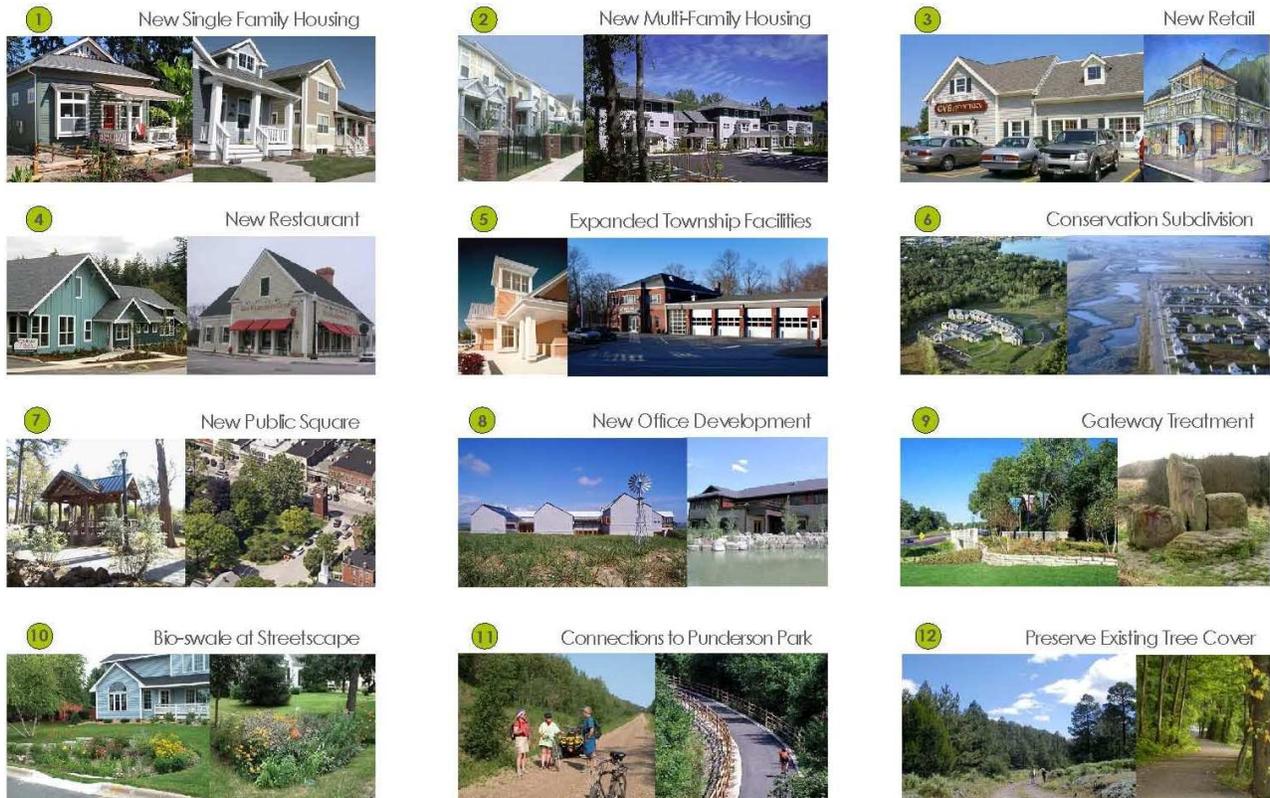
PHASE I – OPTION 1



Illustrative Sketch

Design concepts shown in the long range vision will require a comprehensive sewer treatment system, which is not likely in the short term. A first phase of development is proposed for properties at the intersection of Auburn Road and Kinsman Road. This initial development is dependent upon the limited expansion of the existing sewer treatment plant located adjacent to the existing school

complex. With upgrades, the existing plant is proposed to have a capacity of 60,000 gallons per day, accounting for the existing usage of Mangia Mangia and proposed uses planned for the Panzica development on the Northeast corner of the intersection (see Page A4-6). With this increased capacity, the Town Center Master Plan envisions a mix of uses including single and multifamily housing, retail development, connection of township facilities, community facilities and a new restaurant.



Design Inventions – See plans on Pages, A4-6, A4-8, & A4-9.

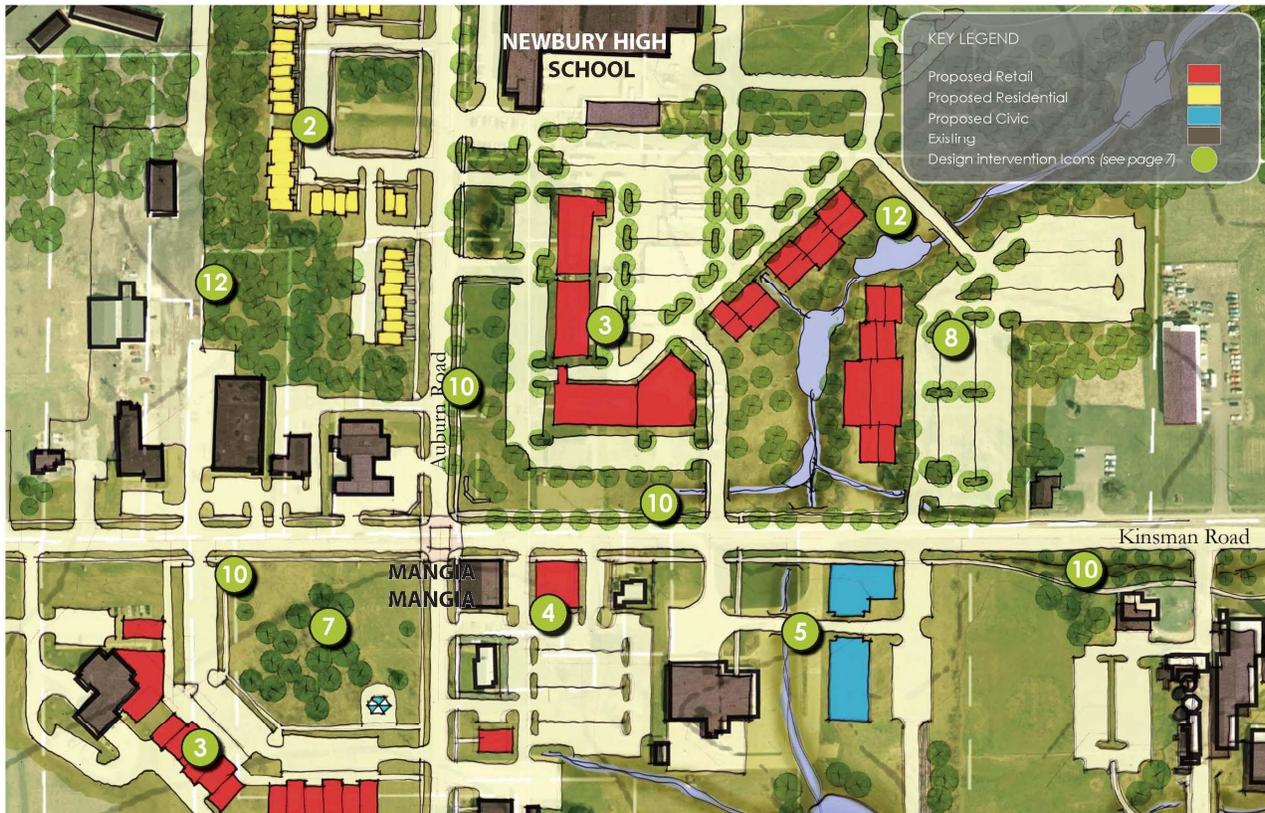
PHASE I – OPTION 2

On site stormwater management systems should be included in all new development and redevelopment projects. Rain gardens, bio-swales and bio-retention basins can be incorporated throughout development sites and included in parking fields without removing development capacity.

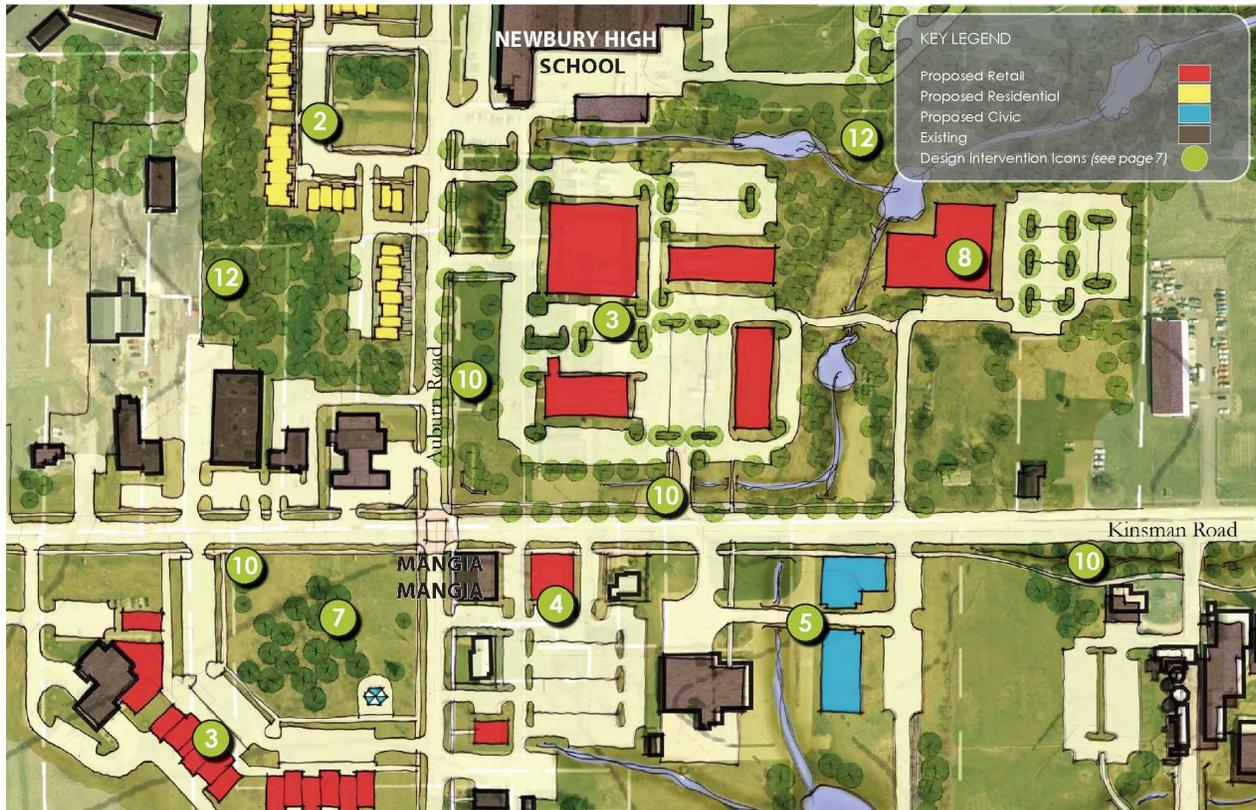


Illustrative Sketch

The three options look at the different configurations for the Panzica development in the Northeast corner. Option 1 suggests a formal setting with a central green space connecting to the soccer and baseball fields of the Newbury High School.



Illustrative Plan - Option 2



Illustrative Sketch

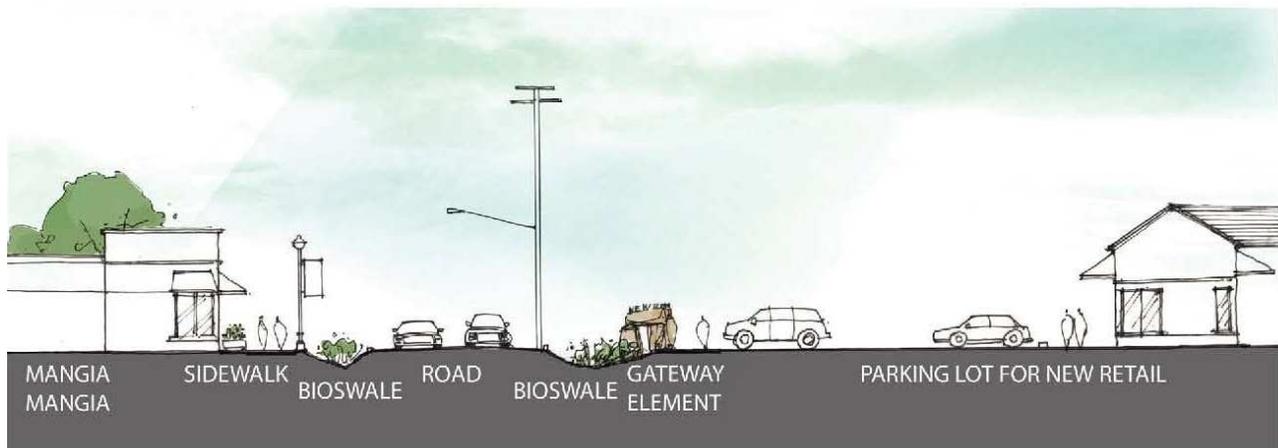
PHASE I – OPTION 3

Options 2 and 3 look at more organic settings to separate the retail and office development, suggesting a stormwater drainage configuration that can connect the cemetery to the small lakes northeast of the Panzica site. These options vary within themselves in the way the retail uses and parking are designed on the site. Besides that, Option 3 also includes a relatively big-box store in the mix.

Pedestrian Enhancements

Easy access along and across Auburn and Kinsman Roads is an important element of the Master plan for Newbury. Pedestrian crossings are intended to be frequent, visible and effective as traffic calming devices. Special paving is needed to enhance the pedestrian environment. A crosswalk treatment should be installed at the main intersection.

The plan envisions redeveloping the existing streetscape. The overall purpose is to create an integrated streetscape design that will enhance the aesthetics of the road, respect neighborhoods, provide opportunities for public art, and improve mobility for pedestrians and bicyclists.



TYPICAL SECTION AT NEWBURY CORNERS



Bioswale



Landscaping



Special paving



Lights, Banners & Planting baskets

Comprehensive Streetscape Enhancements



Pathways

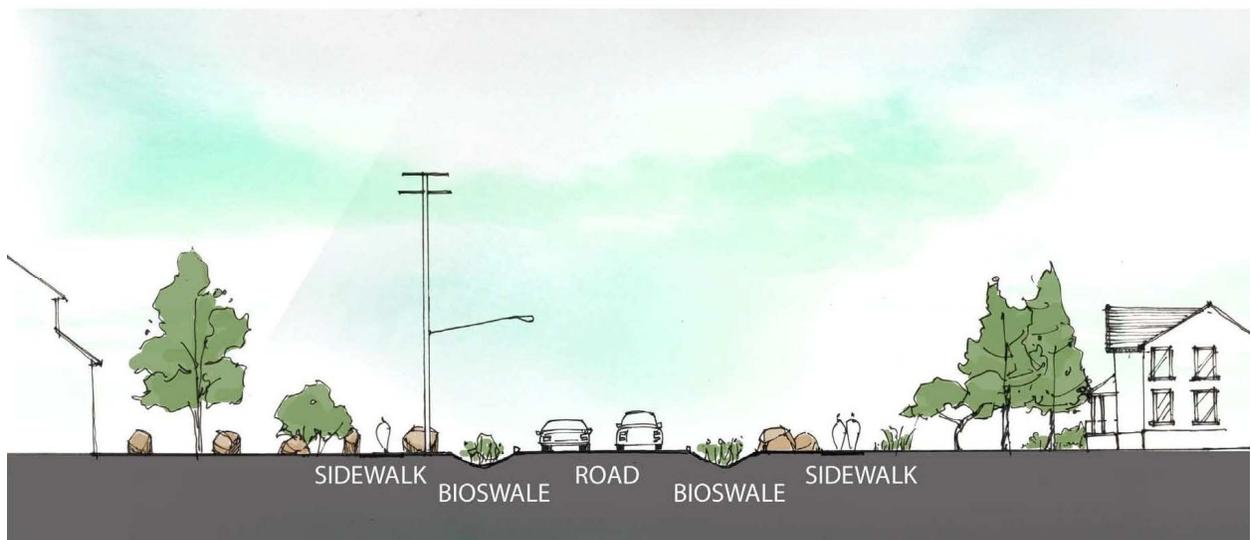


Streetlights



Signage

A comprehensive streetscape project will establish an identity and visual character for Newbury as a “signature” place in Geauga County. New sidewalks and streetscape elements are proposed: relatively formal in nature immediately at the Auburn/Kinsman intersection, but giving way to a more natural streetscape as you move away from the core. The theme of the streetscape is stone, water, and bio-retention. New street trees are proposed, but instead of a very linear streetscape with trees planted every 30 feet, the master plan suggests clumps of trees at strategic places. Gateway and streetscape elements should incorporate stone throughout. Decorative pedestrian lighting (perhaps solar), a banner program and public art that thematically represent the themes prevalent in Newbury such as clean water, family, planning, green building, and greenspace conservation would be an appropriate design strategy to bring together new and existing development and will work to enhance the identity of Newbury as a destination in the region.



TYPICAL SECTION BEYOND NEWBURY CORNERS

Achieving Appropriate Design

As with many of our recommendations, the key is to establish development standards or policies that reflect both sound design principles as well as the desire of the public. Although townships cannot mandate design review, design guidelines can still assist developers before they begin to plan future projects and sharing the ideas generated in this design process is encouraged. Always ask for something better.

The township will review and evaluate all new building projects and issue zoning permits. This review can be an opportunity where some design changes can be influenced, including landscaping, exterior building materials and architectural elements.

Local residents, property owners and merchants all care about the visual outcome of development irrespective of any regulatory requirement for design review. The community and its leadership should provide ideas, based on this plan, to help achieve an appropriate balance between historic and aesthetic considerations and the economic realities every property owner and developer should address.

Voluntary guidelines may not provide sufficient protection, but at times when the township is a participant in the development equation (site plan review, variances requested), the township should encourage developers to provide the best design outcome possible with the most appropriate and durable materials.



Examples

By

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