# The Impact of Population Trends In Kosciusko County

White Paper for KLA April, 2006

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#### **Introduction**

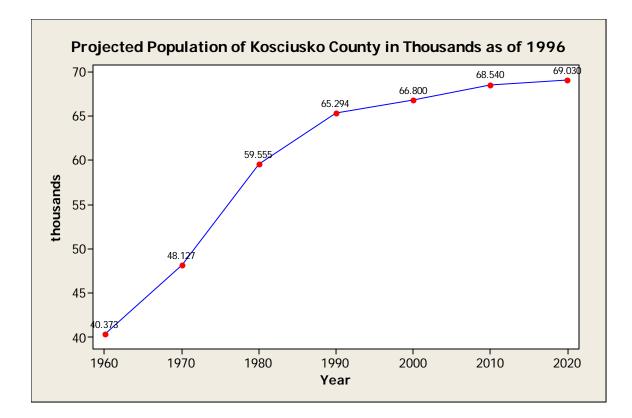
The purpose of this paper is to do a current study of the 17 townships that constitute Kosciusko County and identify those townships which are most likely to experience the greatest growth in the next two years.

In 1996 a Kosciusko County Comprehensive Plan was drafted for the citizens and businesses of Kosciusko County and the Kosciusko County Plan Commission. This plan emphasized the importance of studying the population growth of the County as well as

the relative population changes within areas of the County. Effective growth objectives and infrastructure planning depend on this information.

Population growth trends and projections stated in the 1996 Comprehensive Plan were as follows<sup>1</sup>:

Year	Population (in thousands)
1960	40.373
1970	48.127
1980	59.555
1990	65.294
2000 (projected)	66.80
2010 (projected)	68.54
2020 (projected)	69.03



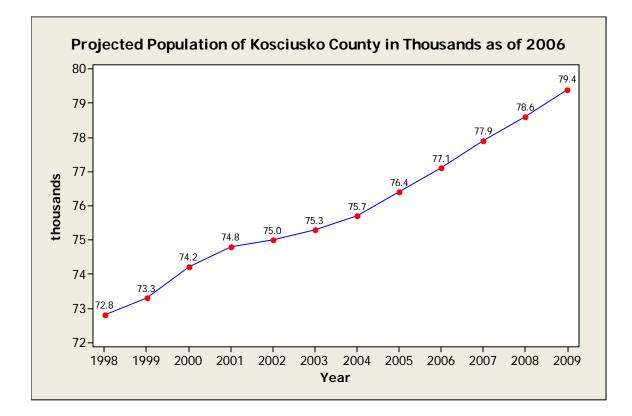
<sup>&</sup>lt;sup>1</sup> Statistics Provided by the Indiana Business Research Center

In the 1996 Comprehensive Plan, predictions of which townships would experience the most significant population growth were also given. It was predicted that between 1990 and 2030 Plain Township would increase at the highest rate, that Tippecanoe, Turkey Creek, Wayne, and Harrison Townships would also increase considerably, whereas Jefferson, Clay, Jackson, Franklin, Etna, and Lake would increase at much lower rates.

In general, the "northeastern lakes corridor" which extends north from Warsaw to Syracuse was predicted to account for most of the County's total projected population increase.

Population growth has far exceeded what was predicted in 1996. In February 2006 the population of Kosciusko County was estimated at  $77,100^2$ . An estimated projection of the population of the county is currently as follows<sup>2</sup>:

Year	Population (in thousands)
1998	72.8
1999	73.3
2000	74.2
2001	74.8
2002	75.0
2003	75.3
2004	75.7
2005	76.4
2006	77.1
2007	77.9
2008	78.6
2009	79.4



<sup>&</sup>lt;sup>2</sup> Statistics provided by the Northern Indiana Workforce Investment Board, Inc., www.gotoworkone.com

As articulated in the 1996 Kosciusko County Comprehensive Plan, it is important to understand the relative population changes within areas of the County for planning purposes. Our goal in this paper is to do a current study of the 17 townships that constitute Kosciusko County and provide an updated projection of those townships which will most likely experience the greatest growth in the next two years.

#### **Data Analysis and Interpretation**

Kosciusko County has 17 townships:

Clay Etna Franklin Harrison Jackson Jefferson Lake Monroe Plain Prairie Scott Seward Tippecanoe **Turkey Creek** Van Buren Washington Wayne

It is reasonable to assume that where population growth is occurring there will be requests for residential building permits and vice versa, so we studied the number of building permits that have been requested recently. The 1996 Kosciusko County Comprehensive Plan states that "housing starts are a good indirect indicator of population growth and local economic health".

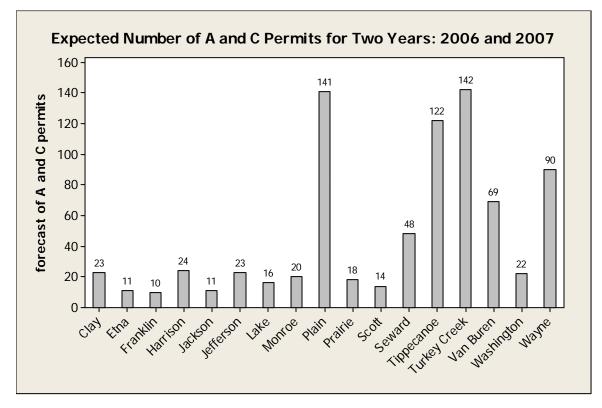
The Kosciusko County Area Plan Commission provided us with a hard copy (paper) record of all improvement location permits issued from January 2000 to December 2005. These records state the township, date, and type of permit. Permit types are as follows:

A: Single Family Residence B: Single Family Residence Additions C: Mobile Homes D: Residence Accessory Buildings E: Multi Family Residence F: Public Use Buildings G: Commercial Buildings H: Industrial Buildings I: Agricultural Buildings

The number of permits for each township by month and permit type was entered into a spreadsheet for analysis (see Appendix B).

The number of permits of type A and C can be used as a measure of how much population growth is occurring. For each township, the permits of type A and C were combined, and the total number of A and C permits for the next two years (2006 and 2007) was estimated with time series forecasting models (see Appendix C for technical details):

	forecast of A and C
Township	permits for 2006, 2007
Clay	23
Etna	11
Franklin	10
Harrison	24
Jackson	11
Jefferson	23
Lake	16
Monroe	20
Plain	141
Prairie	18
Scott	14
Seward	48
Tippecanoe	122
Turkey Creek	142
Van Buren	69
Washington	22
Wayne	90

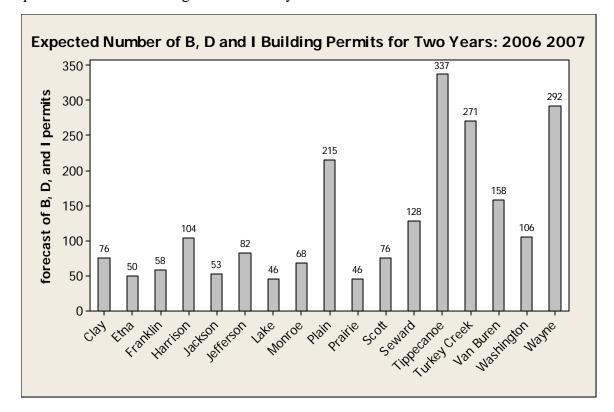


This data suggests that during 2006 and 2007, Plain, Tippecanoe, and Turkey Creek Townships will most likely show the most aggressive growth, followed by Wayne, Van Buren, and Seward. The remainder of Townships are predicted to experience minimal growth: Clay, Etna, Franklin, Harrison, Jackson, Jefferson, Lake, Monroe, Prairie, Scott, and Washington. Note that our predictions for Harrison contrasts sharply with what was predicted in 1996. Our prediction for Wayne is more conservative (less) than was

emphasized in 1996, and our prediction for Van Buren and Seward contrasts in the sense that these were not identified as townships of growth in 1996. It does still seem to be the case that the northeastern lakes corridor from Warsaw to Syracuse is projected to continue growing more significantly than the rest of the county; because of our projection of the growth in Seward Township, we suggest that this corridor of growth might continue to the southwest of Warsaw. (see Appendix A)

As a secondary issue, a forecast of B, D, and I permits shows how people who are actively improving their property are currently distributed throughout the County. We suggest that this is a good indicator of the current distribution of financially capable homeowners throughout the County.

	forecast of B, D, and I
Township	permits for 2006, 2007
Clay	76
Etna	50
Franklin	58
Harrison	104
Jackson	53
Jefferson	82
Lake	46
Monroe	68
Plain	215
Prarie	46
Scott	76
Seward	128
Tippecanoe	337
Turkey Creek	271
Van Buren	158
Washington	106
Wayne	292



For each township, the permits of type B, D and I were combined, and the total number of B, D and I permits for the next two years (2006 and 2007) was estimated with time series forecasting models (see Appendix B for technical details):

This data suggests that the townships of Tippecanoe, Wayne and Turkey Creek currently have the largest number of financially capable homeowners, followed by Plain, Van Buren, Seward, Washington and Harrison.

#### **Impacts**

#### Agricultural Land and Open Space

For the most part, Indiana is still considered a rural state and relies heavily on the Agricultural industry. While the number of small family farms has been shrinking for the last 20 years, the number of large corporate farms has been increasing over that time period. Like most agricultural states, it is important for us to protect our prime agricultural areas while planning for future developments.

One issue that often comes up when dealing with agricultural lands and open space involves the reaction between farming and residential growth as a community or county

continues to grow. When dealing with residential and sometimes commercial growth, it is important to realize the potential conflicts with agricultural uses and protect those existing uses and our agricultural industries. In order to protect these agricultural industries. it is imperative that we understand how and when a community is going to grow. By planning for a community's growth, we can effectively deal with residential growth while protecting our agricultural industries.



Open space is a broad definition encompassing wetlands, parks, lakes, and other possible recreational spaces. Much like agricultural lands, it is important for a community these properties are protected from development in order for future generations to enjoy the same amenities that we have enjoyed. Often as a community grows less land is available for development, which can cause developers to look at sub-par land in order to develop new residential, commercial, and industrial properties. Therefore, it is important that during the planning process these properties are identified and protected from future development.

#### Infrastructure

Population growth can have numerous impacts on counties, cities, and towns and should always be a strong focus on future planning issues and concerns. The growth and placement of population can impact the planning of infrastructure (street, sanitary, storm), government services, and annexation plans. While estimating the growth and future location of residential, commercial, and industrial developments is not always perfect, it provides a basis for planning the future needs of a community. As the population of a community continues to grow certain strains are placed on the services a community provides to its citizens. These services include transportation, sanitary, and storm infrastructure. One of the most important issues for communities concerning population growth is transportation planning. The streets, highways, and roads throughout the community are significantly affected by the continual growth of a community. Understanding where and when a community will grow allows for successful and effective transportation planning in order to circumvent major transportation problems in the future.

Another important issue surrounding population growth is sanitary sewer services provided by a community. Much like transportation, sanitary sewer systems are constantly upgraded and significantly affected by the population growth of a community.

Both sanitary and transportation services are affected by the amount and location of population growth, therefore, it is important to address not only the physical numbers but also the most probable areas subject to development.

Other infrastructure planning including storm sewer and other utilities is also affected by population growth and



should be included in any comprehensive planning actions taken by a community.

#### Growth

One of the most important issues facing communities world-wide, is how to manage continual growth while balancing environmental, agricultural, and public safety concerns.

Obviously the most common first reflection of growth is residential or new home construction, but other uses grow as well and include commercial and industrial uses. All of these uses can have a variety of impacts on a community and should be carefully planned for as new developments occur.



The first and most common type of growth is residential or new home construction. Residential growth has the most obvious affect on a community, in that it relates to a community's population growth. While there is no data that relates new homes to a percentage of population growth, it is reasonable to conceive that there is some type of relationship between population growth and residential development. Therefore, it is important to a community to understand how much and where it will grow in the future, in order to accommodate residential developments. By accommodating the residential developments, a community can balance their continual growth, while balancing the environmental, agricultural, and public safety issues created by the developments.

Much like residential developments, commercial and industrial developments have some kind of relationship with population trends or growth. The question, "does commercial and industrial growth cause residential growth or the other way around", means very little when you consider objectives. The objectives are to plan for all of the different developments, while protecting the public's overall safety and welfare. So when considering population trends, it is important to plan for future commercial and industrial growth as well as residential growth.

#### **Government Services**

Many government services are directly affected by population growth and must be adjusted as the population grows within a community. Services like fire, police, medical, and other government services are controlled in large part by the number of citizens they serve. As the population increases more strain is placed on certain government services that require adjustment in the number of people providing the services. While we tend

not to think in terms of service personnel to population ratios when we think about police, fire, and medical services, they are directly related to population growth when attempting to provide effective and efficient services. It is for this reason that government services are an important part of planning for future growth as it occurs, otherwise playing catch-up can be an expensive proposition.



#### Annexation

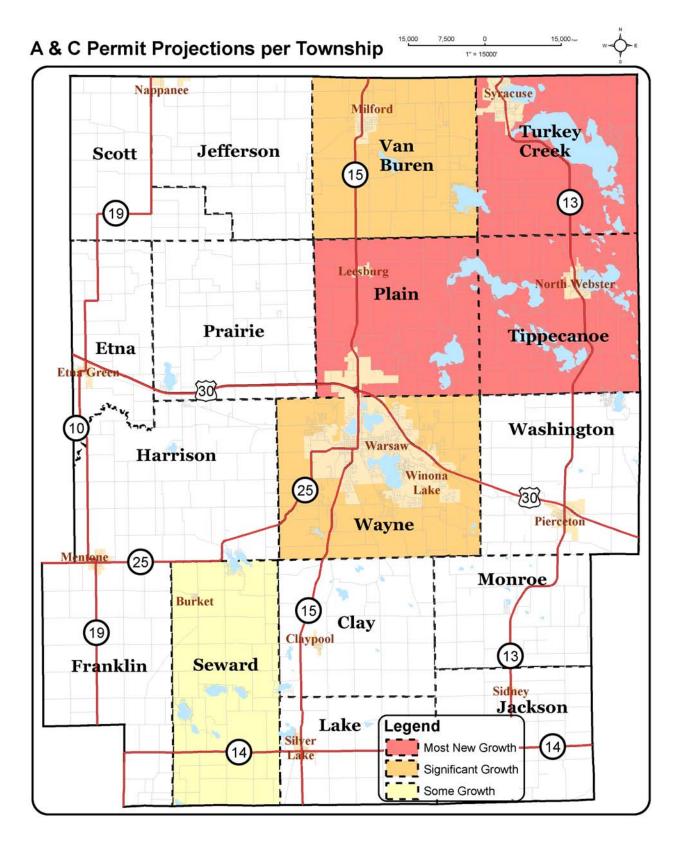
Creating and implementing an annexation plan is an important process for all communities. It is complicated and tedious to implement but ultimately a necessary part of a community's growth. Without an annexation plan, a community becomes stagnant and may not be able to provide the continual services that are in the community's best

interest. These plans should include expanding existing infrastructure, locating probable development areas, and planning for extension of government services.

Population growth trends play an important part in creating and implementing annexation plans. The faster a community grows, the harder it is for a community to implement annexation plans and to control growth areas. Therefore, it is important for a community to locate those areas most prone to development, as well as create plans for how to accommodate those areas within the community. Uncontrolled growth can lead to sprawl and potential development or conflicts with agricultural uses and open space.

#### What Does It Mean

As a community grows it is important for a community to understand how, where, and when it will have to address all the impacts associated with growth. It is for those reasons it is imperative that a community take on statistical studies, comprehensive planning, infrastructure planning, and annexation planning. In order for a community to effectively prepare for the future, it must have an idea of what the future may hold. While the studies may not be completely accurate, they provide a framework for the community to balance future development with the issues surrounding growth. Providing an effective framework will go a long way in addressing the future growth of Kosciusko County and the municipalities within the county, and preparing the best plan of action to address the issues that our community will face over the next 15 to 20 years.



## **Appendix A: Map of Growth Projections**

#### Appendix B: Raw Data

The Kosciusko County Area Plan Commission provided us with a hard copy (paper) record of all improvement location permits issued from January 2000 to December 2005. These records state the township, date, and type of permit. Permit types are as follows:

A: Single Family Residence
B: Single Family Residence Additions
C: Mobile Homes
D: Residence Accessory Buildings
E: Multi Family Residence
F: Public Use Buildings
G: Commercial Buildings
H: Industrial Buildings
I: Agricultural Buildings

The number of permits for each township by month and permit type was entered into the following spreadsheets for analysis.

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	1	0	0
Feb-00	0	0	0	0	0	0	0	0	0	0
Mar-00	0	0	0	1	0	0	1	0	2	1
Apr-00	1	0	0	0	0	0	1	2	1	0
May-00	2	0	0	1	0	0	0	2	2	0
Jun-00	0	0	0	0	0	0	0	1	0	0
Jul-00	0	0	0	0	0	0	1	1	0	0
Aug-00	0	0	0	0	0	0	1	0	1	0
Sep-00	2	0	0	0	0	0	0	1	0	0
Oct-00	1	0	0	0	0	1	0	1	0	0
Nov-00	1	0	0	1	0	0	0	0	2	0
Dec-00	1	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	1	0	0	1	0	0	0	0	0	0
Mar-01	0	0	0	1	0	0	1	0	0	0
Apr-01	2	0	0	1	0	0	1	1	3	0
May-01	2	0	0	0	0	0	2	3	2	0
Jun-01	2	0	0	1	0	0	1	0	2	0
Jul-01	0	0	0	1	0	0	1	2	3	0
Aug-01	2	0	0	1	0	0	3	1	3	0
Sep-01	0	0	0	1	0	0	2	5	0	0
Oct-01	1	0	0	1	0	0	1	1	1	0
Nov-01	1	0	0	0	0	0	1	1	0	0
Dec-01	0	0	0	1	0	0	1	0	0	0
Jan-02	0	0	0	0	0	0	2	0	0	0

Clay Township: Number of improvement location permits by month and by type

r			r	r	r	1	r	r	1	r
Feb-02	1	0	0	0	0	0	0	3	2	0
Mar-02	0	0	0	1	0	0	0	2	1	0
Apr-02	0	0	0	1	0	0	2	3	2	0
May-02	0	0	0	2	0	0	2	3	3	0
Jun-02	0	0	0	1	0	0	1	3	3	0
Jul-02	0	0	0	0	0	0	0	2	0	0
Aug-02	0	0	0	0	0	0	0	0	2	0
Sep-02	0	0	0	0	0	0	3	1	2	0
Oct-02	0	0	0	2	0	0	0	0	0	0
Nov-02	0	0	0	0	0	0	0	0	9	0
Dec-02	1	0	0	0	0	0	0	0	2	0
Jan-03	0	0	0	0	0	0	0	0	1	0
Feb-03	1	0	0	1	0	0	0	0	1	0
Mar-03	1	0	0	0	0	0	0	2	4	0
Apr-03	1	0	0	0	0	0	0	3	0	0
May-03	1	0	0	1	0	0	2	1	1	0
Jun-03	1	0	0	0	0	0	1	0	0	0
Jul-03	1	0	0	0	0	0	1	1	3	0
Aug-03	2	0	0	0	0	0	0	4	0	0
Sep-03	1	0	0	2	0	0	1	1	1	0
Oct-03	1	0	0	0	0	0	0	0	2	0
Nov-03	0	0	0	0	0	0	2	2	1	0
Dec-03	0	0	0	0	0	0	0	0	1	0
Jan-04	0	0	0	0	0	0	1	1	1	0
Feb-04	0	0	0	0	0	0	0	1	0	0
Mar-04	1	0	0	0	0	0	3	0	2	0
Apr-04	1	0	0	0	0	0	2	2	0	0
May-04	1	0	0	0	0	0	4	3	2	0
Jun-04	2	0	0	1	0	0	3	5	1	0
Jul-04	0	0	0	0	0	0	2	1	0	0
Aug-04	0	0	0	0	0	0	0	3	2	0
Sep-04	1	0	0	1	0	0	0	3	0	0
Oct-04	1	0	0	0	0	0	1	1	1	0
Nov-04	0	0	0	0	0	0	2	1	0	0
Dec-04	0	0	0	0	0	0	0	0	3	0
Jan-05	1	0	0	0	0	0	0	0	0	0
Feb-05	0	0	0	0	0	0	0	0	0	0
Mar-05	0	0	0	0	0	0	0	0	0	0
	3	0	0	1	0	0	1			0
Apr-05	3			1	-			4 2	03	-
May-05	<u> </u>	0	0		0	0	0			0
Jun-05		0	0	0	0			4	1	0
Jul-05	0	0	0	0	0	0	4	2	0	0
Aug-05	0	0	0	0	0	0	0	1	1	0
Sep-05	1	0	0	0	0	0	1	0	1	0
Oct-05	1	0	0	1	0	0	1	2	1	0
Nov-05	1	0	0	0	0	0	0	0	1	0
Dec-05	1	0	0	0	0	0	0	0	0	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	0
Feb-00	0	0	0	0	0	0	0	0	0	0
Mar-00	1	0	0	1	0	0	0	1	1	2
Apr-00	2	0	0	0	0	0	0	1	0	0
May-00	1	0	0	0	0	0	0	1	1	0
Jun-00	0	0	0	0	0	0	1	0	0	0
Jul-00	0	0	0	0	0	0	1	0	1	0
Aug-00	1	0	0	0	0	0	0	0	2	0
Sep-00	3	0	1	0	0	0	2	0	0	0
Oct-00	1	0	0	0	0	0	1	0	0	0
Nov-00	1	0	0	0	0	0	1	1	0	0
Dec-00	0	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	1	0	0
Apr-01	1	0	0	1	0	0	0	0	0	0
May-01	0	0	0	0	0	0	0	1	0	0
Jun-01	0	0	0	0	0	0	2	0	0	0
Jul-01	0	0	0	0	0	0	0	1	0	0
Aug-01	1	0	0	0	0	0	0	0	1	0
Sep-01	0	0	0	0	0	0	0	0	0	0
Oct-01	0	0	0	0	0	0	0	1	0	0
Nov-01	0	0	0	0	0	0	0	0	0	0
Dec-01	0	0	0	0	0	0	1	0	0	0
Jan-02	0	0	0	0	0	0	0	1	0	0
Feb-02	1	0	0	0	0	0	0	0	0	0
Mar-02	1	0	0	0	0	0	1	0	0	0
Apr-02	1	0	0	1	0	0	3	2	1	0
May-02	2	0	0	0	0	0	1	1	0	0
Jun-02	1	0	0	0	0	0	2	2	0	0
Jul-02	0	0	0	0	0	0	0	0	0	0
Aug-02	1	0	0	1	0	0	3	2	0	0
Sep-02	3	0	0	0	0	0	0	1	1	0
Oct-02	1	0	0	0	0	0	0	0	0	0
Nov-02	1	0	0	0	0	0	1	1	0	0
Dec-02	0	0	0	0	0	0	0	0	0	0
Jan-03	0	0	0	0	0	0	0	0	0	0
Feb-03	0	0	0	0	0	0	0	0	0	0
Mar-03	3	0	0	0	0	0	0	1	1	0
Apr-03	1	0	0	0	0	0	0	0	2	0
May-03	3	0	0	0	0	1	2	1	0	0
Jun-03	2	0	0	0	0	0	2	3	0	0
Jul-03	1	0	0	0	0	0	0	1	2	0
Aug-03	0	0	0	0	0	0	0	1	0	0

Etna Township: Number of improvement location permits by month and by type

Sep-03	1	0	0	0	0	0	0	0	0	0
Oct-03	0	0	0	0	0	0	1	0	0	0
Nov-03	1	0	0	0	0	0	0	0	1	0
Dec-03	0	0	0	0	0	0	0	0	0	0
Jan-04	0	0	0	0	0	0	0	0	2	0
Feb-04	4	0	0	0	0	0	1	1	1	0
Mar-04	2	0	0	0	0	0	1	2	0	0
Apr-04	2	0	0	0	0	0	1	0	1	0
May-04	2	0	0	0	0	0	0	2	3	0
Jun-04	1	0	0	0	0	0	1	0	1	0
Jul-04	2	0	0	0	0	0	0	1	0	0
Aug-04	0	0	0	0	0	0	1	1	2	0
Sep-04	0	0	0	1	0	0	0	1	2	0
Oct-04	2	0	0	0	0	0	0	1	0	0
Nov-04	0	0	0	0	0	0	0	1	2	0
Dec-04	0	0	0	0	0	0	0	0	1	0
Jan-05	1	0	0	0	0	0	1	0	0	0
Feb-05	0	0	0	0	0	0	0	0	2	0
Mar-05	0	0	0	0	0	0	1	1	0	0
Apr-05	2	0	0	0	0	0	1	1	1	0
May-05	2	0	0	0	0	0	0	1	2	0
Jun-05	0	0	0	0	0	0	2	0	0	0
Jul-05	0	0	0	0	0	1	1	1	1	0
Aug-05	2	0	0	0	0	0	0	1	1	0
Sep-05	2	0	0	0	0	0	0	1	0	0
Oct-05	1	0	0	0	0	0	0	1	0	0
Nov-05	0	0	0	0	0	0	0	0	0	0
Dec-05	0	0	0	0	0	0	0	0	0	0

	I	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	0
Feb-00	0	0	0	0	0	0	0	0	0	1
Mar-00	1	0	0	0	0	0	0	0	0	1
Apr-00	1	0	0	0	0	0	0	0	0	0
May-00	1	0	0	0	0	0	0	1	0	0
Jun-00	0	0	0	0	0	1	2	1	1	0
Jul-00	1	0	0	0	0	0	3	0	0	0
Aug-00	1	0	0	0	0	0	0	1	2	0
Sep-00	0	0	0	0	0	0	0	1	0	0
Oct-00	1	0	0	1	0	0	0	0	0	0
Nov-00	0	0	0	0	0	0	0	0	0	0
Dec-00	0	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	2	0
Feb-01	1	0	0	0	0	0	0	1	1	0
Mar-01	0	0	0	0	0	0	0	0	0	0
Apr-01	0	0	0	0	0	0	2	0	0	0
May-01	0	0	0	0	0	0	0	1	0	0
Jun-01	0	0	0	0	0	0	1	0	2	0
Jul-01	2	0	0	1	0	0	2	1	0	0
Aug-01	1	0	0	1	0	0	2	2	2	0
Sep-01	1	0	0	2	0	0	0	1	0	0
Oct-01	2	0	0	0	0	0	0	0	0	0
Nov-01	2	0	0	0	0	0	0	0	0	0
Dec-01	1	0	0	0	0	0	0	0	0	0
Jan-02	1	0	0	0	0	0	1	0	1	0
Feb-02	2	0	0	0	0	0	0	0	0	0
Mar-02	0	0	0	0	0	0	0	1	0	0
Apr-02	0	0	0	0	0	0	2	2	2	0
May-02	2	0	0	0	0	0	0	1	0	0
Jun-02	0	0	0	0	0	0	4	0	1	0
Jul-02	1	1	0	0	0	0	1	1	0	0
Aug-02	1	0	0	0	0	0	0	2	0	0
Sep-02	0	0	0	0	0	0	0	2	0	0
Oct-02	0	0	0	1	0	0	0	0	0	0
Nov-02	0	0	0	0	0	0	0	0	0	0
Dec-02	0	0	0	0	0	0	0	0	0	0
Jan-03	0	0	0	0	0	0	0	0	1	0
Feb-03	0	0	0	1	0	0	1	0	1	0
Mar-03	1	0	0	0	0	0	2	1	1	0
Apr-03	0	0	0	0	0	0	1	1	3	0
May-03	0	0	0	0	0	0	0	0	0	0
Jun-03	1	0	0	1	0	0	0	1	0	0
Jul-03	1	0	0	0	0	0	0	2	1	0
Aug-03	0	0	0	0	0	0	1	0	2	0

Franklin Township: Number of improvement location permits by month and by type

Sep-03	1	0	0	0	0	0	1	0	0	0
Oct-03	1	0	0	0	0	0	1	1	0	0
Nov-03	2	0	0	0	0	0	0	1	0	0
Dec-03	0	0	0	0	0	0	0	0	0	0
Jan-04	2	0	0	0	0	0	0	0	0	0
Feb-04	1	0	0	0	0	0	0	1	0	0
Mar-04	2	0	0	0	0	0	3	1	0	0
Apr-04	2	0	0	1	0	0	1	0	1	0
May-04	1	0	0	0	0	2	1	3	0	0
Jun-04	2	0	0	1	0	0	1	3	0	0
Jul-04	0	0	0	0	0	0	0	0	0	0
Aug-04	1	0	0	0	0	0	1	1	0	0
Sep-04	1	0	0	2	0	0	0	1	0	0
Oct-04	3	0	0	0	0	0	1	1	0	0
Nov-04	2	0	0	0	0	0	0	1	2	0
Dec-04	0	0	0	0	0	0	0	0	0	0
Jan-05	0	0	0	0	0	0	0	0	1	0
Feb-05	0	0	0	0	0	0	0	0	0	0
Mar-05	0	0	0	0	0	0	1	1	0	0
Apr-05	1	0	0	0	0	0	0	1	2	0
May-05	1	0	0	0	0	0	1	0	2	0
Jun-05	0	1	0	0	0	0	1	2	0	0
Jul-05	0	0	0	0	0	0	0	0	1	0
Aug-05	2	1	0	0	0	0	0	1	0	0
Sep-05	4	0	0	0	0	0	0	2	0	0
Oct-05	1	0	0	0	0	0	0	0	0	0
Nov-05	0	0	0	0	0	0	0	1	0	0
Dec-05	0	1	0	0	0	0	0	0	1	0

	I	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	1
Feb-00	0	0	0	0	0	0	0	0	0	1
Mar-00	0	0	0	0	0	0	1	3	1	3
Apr-00	4	0	0	1	0	0	2	2	2	1
May-00	1	0	0	1	0	0	1	6	0	0
Jun-00	0	0	1	1	0	0	3	0	1	0
Jul-00	1	0	0	1	0	0	2	2	1	0
Aug-00	2	0	1	4	0	0	2	2	0	0
Sep-00	0	1	0	0	0	0	3	2	0	0
Oct-00	2	1	0	3	0	0	0	1	2	0
Nov-00	0	0	0	0	0	0	3	0	2	0
Dec-00	0	0	0	0	0	0	0	0	1	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	1	0	0	0	0	0	1	2	2	0
Mar-01	1	0	0	1	0	1	4	3	0	0
Apr-01	0	0	0	0	0	0	0	2	0	0
May-01	1	0	0	1	0	0	2	2	1	0
Jun-01	1	0	0	1	0	0	3	2	2	0
Jul-01	1	0	0	1	0	0	3	9	0	0
Aug-01	2	0	0	0	0	0	1	8	3	0
Sep-01	1	0	0	0	0	0	2	1	0	0
Oct-01	1	0	0	0	0	0	0	2	0	0
Nov-01	1	0	0	0	0	0	1	2	1	0
Dec-01	1	0	0	0	0	0	0	0	0	0
Jan-02	0	0	0	0	0	0	2	1	0	0
Feb-02	1	1	0	0	0	0	0	1	0	0
Mar-02	1	0	0	0	0	0	1	3	0	0
Apr-02	2	0	0	0	0	0	2	5	2	0
May-02	0	0	0	1	0	0	2	6	1	0
Jun-02	0	0	0	0	0	0	3	3	0	0
Jul-02	0	0	0	0	0	0	1	0	2	0
Aug-02	0	0	0	2	0	0	1	0	0	0
Sep-02	1	0	0	2	0	0	1	6	0	0
Oct-02	1	0	0	0	0	1	2	1	0	0
Nov-02	1	0	0	0	0	0	2	1	2	0
Dec-02	0	0	0	0	0	0	0	0	2	0
Jan-03	1	0	0	0	0	0	1	0	0	0
Feb-03	0	0	0	0	0	0	0	1	1	0
Mar-03	2	0	0	0	0	0	1	2	3	0
Apr-03	0	0	0	0	0	0	0	1	1	0
May-03	1	0	0	1	0	0	2	5	0	0
Jun-03	0	0	0	0 1	0	0	1 5	2	1	0
Jul-03 Aug-03	0	0	0	1	0	0	5 2	4	1	1 0

Harrison Township: Number of improvement location permits by month and by type

Sep-03	2	0	0	1	0	0	2	5	2	0
Oct-03	1	0	0	0	0	0	3	0	3	0
Nov-03	3	0	0	0	0	0	1	2	1	0
Dec-03	0	0	0	1	0	0	0	0	1	0
Jan-04	0	0	0	0	0	0	1	0	1	0
Feb-04	0	0	0	0	0	0	1	1	0	0
Mar-04	3	0	0	0	0	0	2	1	3	0
Apr-04	0	0	0	0	0	0	2	2	0	0
May-04	0	0	0	0	0	0	4	1	0	0
Jun-04	3	0	0	0	0	0	0	0	0	0
Jul-04	2	0	0	0	0	0	2	1	1	0
Aug-04	3	0	0	1	0	0	5	1	1	0
Sep-04	1	0	0	0	0	0	1	3	0	0
Oct-04	0	0	0	0	0	0	2	1	0	0
Nov-04	1	0	0	0	0	0	1	0	1	0
Dec-04	0	0	0	0	0	0	0	1	2	0
Jan-05	0	0	0	0	0	0	0	1	1	0
Feb-05	1	0	0	0	0	0	0	1	0	0
Mar-05	3	0	0	0	0	0	0	0	1	0
Apr-05	0	0	0	0	0	0	2	2	3	0
May-05	7	0	0	0	0	0	1	4	0	0
Jun-05	0	0	0	0	0	0	2	0	2	0
Jul-05	2	0	0	2	0	0	1	2	2	0
Aug-05	3	0	0	0	0	0	2	4	1	0
Sep-05	7	0	0	0	0	0	3	5	1	0
Oct-05	2	0	0	0	0	0	0	1	2	0
Nov-05	0	0	0	0	0	0	1	0	1	0
Dec-05	0	0	0	0	0	0	0	1	0	0

		G	Н	С	Е	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	0
Feb-00	0	0	0	0	0	0	0	0	0	3
Mar-00	0	0	0	1	0	0	0	0	0	2
Apr-00	0	0	0	0	0	0	0	1	3	0
May-00	0	0	0	0	0	0	2	2	1	0
Jun-00	1	0	0	0	0	0	3	4	1	0
Jul-00	2	0	0	0	0	0	1	0	0	0
Aug-00	3	0	0	0	0	0	2	1	1	0
Sep-00	0	0	0	1	0	0	0	1	1	0
Oct-00	0	0	0	0	0	0	0	0	1	0
Nov-00	1	0	0	0	0	0	0	0	2	0
Dec-00	0	0	0	1	0	0	1	1	0	0
Jan-01	0	0	0	0	0	0	0	1	0	0
Feb-01	1	0	0	0	0	0	0	1	1	0
Mar-01	0	0	0	0	0	0	1	0	0	0
Apr-01	1	0	0	0	0	0	1	0	2	0
May-01	3	0	0	0	0	0	1	0	0	0
Jun-01	4	0	0	0	0	0	2	2	1	0
Jul-01	1	0	0	0	0	0	1	5	0	0
Aug-01	2	0	0	0	0	0	4	1	1	0
Sep-01	2	0	0	0	0	0	0	2	2	0
Oct-01	1	1	0	0	0	0	2	3	0	0
Nov-01	0	0	0	0	0	0	0	0	0	0
Dec-01	0	0	0	0	0	0	0	0	1	0
Jan-02	2	0	0	1	0	0	1	0	1	0
Feb-02	0	0	0	0	0	0	0	1	0	0
Mar-02	2	0	0	0	0	0	1	0	0	0
Apr-02	0	0	0	0	0	0	3	3	1	0
May-02	2	0	0	0	0	0	0	1	2	0
Jun-02	0	0	0	0	0	1	0	1	1	0
Jul-02	1	0	0	0	0	0	0	1	1	0
Aug-02	1	0	0	1	0	0	0	1	1	0
Sep-02	0	0	0	1	0	0	1	0	0	0
Oct-02	2	0	0	0	0	0	1	1	1	0
Nov-02	0	0	0	0	0	1	0	0	1	0
Dec-02	1	0	0	0	0	0	0	0	0	0
Jan-03	0	0	0	1	0	0	0	0	1	0
Feb-03	0	0	0	0	0	0	0	1	0	0
Mar-03	0	1	0	0	0	0	0	1	0	0
Apr-03	0	0	0	0	0	0	2	1	2	0
May-03	0	0	0	0	0	0	0	0	1	0
Jun-03	1	0	0	0	0	0	1	0	0	0
Jul-03	1	0	0	0	0	0	1	2	1	0
Aug-03	0	0	0	0	0	0	0	1	2	0

Jackson Township: Number of improvement location permits by month and by type

Sep-03	1	0	0	0	0	0	0	0	3	0
Oct-03	1	0	0	0	0	0	1	0	0	0
Nov-03	1	0	0	0	0	0	0	0	0	0
Dec-03	0	0	0	0	0	0	0	0	1	0
Jan-04	1	0	0	0	0	0	0	0	0	0
Feb-04	0	0	0	0	0	0	0	1	0	0
Mar-04	1	0	0	0	0	0	0	0	1	0
Apr-04	1	0	0	0	0	0	0	2	0	0
May-04	1	0	0	0	0	0	2	4	1	0
Jun-04	0	0	0	0	0	0	2	2	0	0
Jul-04	0	0	1	0	0	0	1	1	0	0
Aug-04	2	0	0	0	0	0	0	2	0	0
Sep-04	1	0	0	0	0	0	0	0	0	0
Oct-04	2	0	0	1	0	0	0	0	1	0
Nov-04	2	0	0	0	0	0	0	0	1	0
Dec-04	0	0	0	0	0	0	0	0	0	0
Jan-05	1	0	0	0	0	0	0	0	1	0
Feb-05	1	0	0	1	0	0	0	0	0	0
Mar-05	0	0	0	0	0	0	2	1	0	0
Apr-05	1	0	0	0	0	0	0	2	0	0
May-05	2	0	0	0	0	0	0	1	0	0
Jun-05	1	0	0	1	0	0	0	0	0	0
Jul-05	0	0	0	0	0	0	1	0	1	0
Aug-05	2	0	0	0	0	0	0	0	0	0
Sep-05	2	0	0	0	0	0	0	0	2	0
Oct-05	0	0	0	1	0	0	0	1	0	0
Nov-05	1	0	0	0	0	0	1	0	0	0
Dec-05	1	0	0	0	0	0	0	1	0	0

	Ι	G	н	С	Е	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	0
Feb-00	0	0	0	0	0	0	0	0	0	0
Mar-00	0	0	0	0	0	0	0	0	0	0
Apr-00	0	0	0	0	0	0	0	0	0	0
May-00	0	0	0	0	0	0	0	0	0	0
Jun-00	1	0	0	0	0	0	0	1	1	0
Jul-00	2	0	0	0	0	1	1	2	0	0
Aug-00	2	0	0	0	0	0	0	3	1	0
Sep-00	1	0	0	0	0	0	1	1	0	0
Oct-00	2	0	0	0	0	0	1	1	1	0
Nov-00	1	0	0	0	0	0	0	1	0	0
Dec-00	0	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	1	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	3	0	0	0	0	0	0	2	1	0
Apr-01	1	0	0	0	0	0	0	0	0	0
May-01	3	0	0	0	0	0	1	0	4	0
Jun-01	0	0	0	0	0	0	0	2	0	0
Jul-01	1	0	0	0	0	0	2	0	1	0
Aug-01	2	0	0	0	0	0	0	1	0	0
Sep-01	2	0	0	1	0	0	0	3	0	0
Oct-01	0	0	0	1	0	0	3	2	3	0
Nov-01	0	0	0	0	0	0	0	0	3	0
Dec-01	1	0	0	0	0	0	1	0	0	0
Jan-02	1	0	0	0	0	0	0	0	0	0
Feb-02	0	0	0	0	0	0	1	0	1	0
Mar-02	1	0	0	0	0	0	0	5	2	0
Apr-02	1	0	0	1	0	0	0	2	1	0
May-02	4	1	0	0	0	1	0	1	1	0
Jun-02	0	1	0	1	0	0	1	2	1	0
Jul-02	2	1	0	0	0	0	4	2	2	0
Aug-02	1	0	0	0	0	0	0	1	0	0
Sep-02	1	0	0	1	0	0	0	1	1	0
Oct-02	2	0	0	0	0	0	0	0	1	0
Nov-02	1	0	0	0	0	0	1	0	1	0
Dec-02	2	0	0	0	0	0	1	1	1	0
Jan-03	1	0	0	1	0	0	1	1	0	0
Feb-03	0	0	0	0	0	0	1	1	1	0
Mar-03	1	0	0	0	0	0	1	1	1	0
Apr-03	2	0	0	0	0	0	0	1	0	0
May-03	1	0	0	0	0	0	0	2	1	0
Jun-03	1	0	0	0	0	0	1	1	0	0
Jul-03	2	0	0	0	0	0	1	0	0	0
Aug-03	1	0	0	0	0	0	0	0	1	0

Jefferson Township: Number of improvement location permits by month and by type

Sep-03	1	0	0	0	0	0	2	1	1	0
Oct-03	3	0	0	0	0	0	2	3	1	0
Nov-03	1	0	0	1	0	0	0	1	1	0
Dec-03	0	0	0	0	0	0	0	0	0	0
Jan-04	0	0	0	0	0	0	1	0	0	0
Feb-04	2	0	0	0	0	0	0	1	1	0
Mar-04	3	0	0	0	0	0	3	2	1	0
Apr-04	0	0	0	0	0	0	3	1	0	0
May-04	2	0	0	1	0	0	0	3	0	0
Jun-04	4	0	0	0	0	0	0	0	2	0
Jul-04	2	0	0	0	0	0	1	0	2	0
Aug-04	6	0	0	0	0	0	1	3	3	0
Sep-04	0	0	0	0	0	0	0	0	0	0
Oct-04	2	0	0	0	0	0	1	1	1	0
Nov-04	1	0	0	1	0	0	0	0	0	0
Dec-04	0	0	0	0	0	0	0	0	0	0
Jan-05	1	0	0	0	0	0	0	0	0	0
Feb-05	0	0	0	0	0	0	0	0	0	0
Mar-05	2	0	0	0	0	0	0	1	1	0
Apr-05	3	0	0	0	0	0	0	1	4	0
May-05	2	0	0	0	0	0	0	1	1	0
Jun-05	4	1	0	0	0	0	1	2	2	0
Jul-05	1	0	0	0	0	0	1	1	2	0
Aug-05	1	0	0	0	0	0	1	0	0	0
Sep-05	2	0	0	0	0	0	0	0	0	0
Oct-05	2	0	0	0	0	0	0	1	1	0
Nov-05	1	0	0	0	0	0	0	0	0	0
Dec-05	1	0	0	0	0	0	0	1	0	0

	1					F		Б	^	Other
lon 00	0	G 0	Н 0	C	E	г 0	D 0	B	A 0	Other
Jan-00				0	0			0		1
Feb-00	0	0	0	0	0	0	0	0	0	1
Mar-00	0	0	0	0	0	0	0	0	0	0
Apr-00	0	0	0	0	0	0	0	1	0	0
May-00	0	0	0	0	0	0	2	2	0	0
Jun-00	2	0	0	0	0	0	0	1	1	0
Jul-00	1	0	0	0	0	0	2	2	1	0
Aug-00	0	0	0	1	0	0	1	1	0	0
Sep-00	1	0	0	0	0	0	1	0	0	0
Oct-00	0	0	0	0	0	0	3	0	0	0
Nov-00	2	0	0	0	0	0	1	0	0	0
Dec-00	1	0	0	0	0	0	0	1	0	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	0	0
Mar-01	0	0	0	0	0	0	0	2	0	0
Apr-01	0	0	0	0	0	1	1	0	0	0
May-01	0	0	0	0	0	0	1	0	1	0
Jun-01	0	0	0	0	1	0	1	0	1	0
Jul-01	2	0	0	2	0	0	3	1	0	0
Aug-01	0	0	0	0	0	0	0	1	1	0
Sep-01	0	0	0	0	0	0	0	1	1	0
Oct-01	2	1	0	0	0	0	0	2	0	0
Nov-01	0	0	0	0	0	0	0	0	0	0
Dec-01	0	0	0	0	0	0	0	1	0	0
Jan-02	0	0	0	0	0	0	0	0	0	0
Feb-02	0	0	0	0	0	0	1	1	1	0
Mar-02	1	0	1	0	0	0	0	2	0	0
Apr-02	0	0	0	1	0	0	3	0	2	0
May-02	0	0	0	0	0	0	0	1	1	0
Jun-02	1	0	0	0	0	0	1	0	0	0
Jul-02	1	0	1	0	0	0	0	0	1	0
Aug-02	0	0	0	0	0	0	0	0	1	0
Sep-02	2	0	0	0	0	0	0	1	2	0
Oct-02	0	0	0	0	0	0	0	1	0	0
Nov-02	0	0	0	1	0	0	1	1	1	0
Dec-02	0	0	0	0	0	0	0	0	0	0
Jan-03	0	0	0	0	0	0	0	1	0	0
Feb-03	0	0	0	0	0	0	0	0	0	0
Mar-03	1	0	0	0	0	0	0	0	2	0
Apr-03	1	0	0	0	0	0	0	4	0	0
May-03	0	0	0	0	0	1	3	2	1	0
Jun-03	0	0	0	0	0	0	1	3	1	0
Jul-03	1	0	0	0	1	0	1	1	1	0
Aug-03	0	0	0	0	0	1	1	6	0	0
Sep-03	1	0	0	1	0	0	1	0	1	0

Lake Township: Number of improvement location permits by month and by type

Oct-03	0	1	0	1	0	0	0	0	0	0
Nov-03	0	0	0	0	0	0	0	1	0	0
Dec-03	1	0	0	0	0	0	1	1	0	0
Jan-04	1	0	0	0	0	0	0	0	0	0
Feb-04	0	0	0	0	0	0	1	0	2	0
Mar-04	0	0	0	0	0	0	0	1	0	0
Apr-04	0	0	0	0	0	0	1	1	2	0
May-04	0	0	0	0	0	0	0	0	1	0
Jun-04	0	0	0	0	0	0	2	2	1	0
Jul-04	0	0	0	0	0	0	0	2	0	0
Aug-04	3	0	0	0	0	0	2	1	2	0
Sep-04	1	0	0	0	0	0	0	1	0	0
Oct-04	1	0	0	0	0	0	1	0	1	0
Nov-04	0	0	0	0	0	0	0	0	0	0
Dec-04	0	0	0	0	0	0	0	1	0	0
Jan-05	0	0	0	0	0	0	0	0	0	0
Feb-05	0	0	0	0	0	0	0	0	0	0
Mar-05	0	0	0	1	0	0	0	0	0	0
Apr-05	0	0	0	0	0	0	1	2	2	0
May-05	0	0	0	0	0	0	1	2	0	0
Jun-05	0	1	0	1	0	0	2	1	0	0
Jul-05	0	0	0	0	0	0	2	1	2	0
Aug-05	1	0	0	0	0	0	3	1	2	0
Sep-05	2	0	0	0	0	0	2	1	0	0
Oct-05	0	0	0	0	0	0	1	1	0	0
Nov-05	0	0	0	0	0	0	1	0	0	0
Dec-05	0	0	0	0	0	0	1	0	0	0

	I	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	2	0	1	5
Feb-00	0	0	0	0	0	0	0	0	0	1
Mar-00	2	0	0	0	0	0	2	0	1	4
Apr-00	1	0	0	2	0	0	0	0	1	0
May-00	1	0	0	0	0	0	0	2	1	0
Jun-00	1	0	0	0	0	0	1	3	0	0
Jul-00	0	0	0	0	0	0	1	2	1	0
Aug-00	4	0	0	0	0	0	0	1	1	0
Sep-00	0	0	0	0	0	0	1	0	1	0
Oct-00	0	0	0	1	0	0	0	0	0	0
Nov-00	1	0	0	1	0	0	2	2	1	0
Dec-00	0	0	0	0	0	0	0	1	1	0
Jan-01	0	0	0	1	0	0	0	0	1	0
Feb-01	1	0	0	0	0	0	1	1	2	0
Mar-01	1	0	0	0	0	0	1	1	0	0
Apr-01	0	0	0	0	0	0	2	1	1	0
May-01	0	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	1	1	0
Jul-01	2	0	0	0	0	0	0	1	0	0
Aug-01	2	0	0	1	0	0	0	3	3	0
Sep-01	0	0	0	0	0	0	0	2	2	0
Oct-01	0	0	0	3	0	0	0	3	1	0
Nov-01	2	0	0	0	0	0	1	0	3	0
Dec-01	0	0	0	0	0	0	0	1	0	0
Jan-02	0	0	0	0	0	0	0	0	0	0
Feb-02	0	0	0	1	0	0	0	0	0	0
Mar-02	1	0	0	0	0	0	1	1	0	0
Apr-02	0	0	0	0	0	0	2	0	2	0
May-02	2	0	0	0	0	0	0	4	0	0
Jun-02	3	0	0	1	0	0	0	1	0	0
Jul-02	1	0	0	0	0	1	3	3	4	0
Aug-02	0	0	0	0	0	0	0	1	0	0
Sep-02	1	0	0	1	0	0	1	0	2	0
Oct-02	1	0	0	0	0	1	0	0	1	0
Nov-02	1	0	0	0	0	0	1	0	1	0
Dec-02	0	0	0	1	0	0	0	0	0	0
Jan-03	0	0	0	0	0	0	0	0	0	0
Feb-03	0	0	0	0	0	0	0	1	0	0
Mar-03	1	0	0	0	0	1	0	1	0	0
Apr-03	1	0	0	1	0	1	1	5	3	0
May-03	0	0	0	0	0	0	3	2	0	0
Jun-03	2	0	0	1	0	0	1	2	1	0
Jul-03	1	0	0	0	0	0	3	4	1	0
Aug-03	3	0	0	0	0	0	1	0	1	0

Monroe Township: Number of improvement location permits by month and by type

Sep-03	0	0	0	0	0	0	0	1	2	0
Oct-03	0	0	0	0	0	0	3	1	0	0
Nov-03	0	0	0	0	0	0	1	1	0	0
Dec-03	0	0	0	0	0	0	0	1	1	0
Jan-04	0	0	0	0	0	0	0	0	0	0
Feb-04	0	0	0	0	0	0	1	0	0	0
Mar-04	0	0	0	0	0	0	1	1	0	0
Apr-04	0	0	0	0	0	0	0	1	0	0
May-04	0	0	0	1	0	0	1	0	0	0
Jun-04	0	0	0	1	0	0	2	1	0	0
Jul-04	1	0	0	0	0	0	1	2	0	0
Aug-04	2	0	0	0	0	0	2	2	1	0
Sep-04	0	0	0	1	0	0	1	1	0	0
Oct-04	0	0	0	0	0	0	0	0	0	0
Nov-04	0	0	0	0	0	0	0	1	1	1
Dec-04	0	0	0	1	0	0	1	0	1	0
Jan-05	0	0	0	0	0	0	0	0	0	0
Feb-05	1	0	0	0	0	0	1	1	0	0
Mar-05	2	0	0	0	0	0	1	1	0	0
Apr-05	1	0	0	1	0	0	3	3	1	0
May-05	6	0	0	1	0	0	0	2	1	0
Jun-05	2	0	0	0	0	0	0	0	3	0
Jul-05	1	0	0	1	0	0	6	3	1	0
Aug-05	1	0	0	1	0	0	1	1	0	0
Sep-05	2	0	0	0	0	0	1	1	1	0
Oct-05	1	0	0	0	0	0	0	0	2	0
Nov-05	0	0	0	0	0	0	0	0	0	0
Dec-05	0	0	0	0	0	0	0	0	0	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	3	0	2
Feb-00	0	0	0	0	0	0	0	0	0	11
Mar-00	0	0	0	1	0	0	0	3	1	4
Apr-00	0	0	1	0	0	0	4	6	1	0
May-00	1	0	0	1	0	0	4	12	5	0
Jun-00	1	0	0	0	0	0	4	13	1	0
Jul-00	0	1	2	0	0	0	4	7	1	0
Aug-00	3	1	0	0	0	0	4	6	4	0
Sep-00	2	2	1	0	0	0	3	5	5	0
Oct-00	0	0	2	0	0	0	3	2	3	0
Nov-00	1	1	0	1	0	0	0	4	0	0
Dec-00	0	0	1	0	0	0	0	2	1	0
Jan-01	0	0	0	0	0	0	0	0	1	0
Feb-01	1	0	0	1	0	0	0	0	4	0
Mar-01	3	0	0	2	0	0	3	5	5	0
Apr-01	2	0	1	0	0	0	5	9	10	0
May-01	0	0	0	0	0	0	4	5	2	0
Jun-01	0	0	0	2	0	0	7	4	4	0
Jul-01	1	1	1	0	0	0	6	9	5	0
Aug-01	0	0	0	1	0	0	5	8	5	0
Sep-01	1	0	0	0	0	0	7	6	3	0
Oct-01	1	0	0	1	0	0	2	2	6	0
Nov-01	2	0	0	0	0	1	4	7	4	0
Dec-01	2	0	1	0	0	0	3	10	2	0
Jan-02	1	0	0	0	0	0	1	1	1	0
Feb-02	1	0	0	0	0	0	2	2	1	0
Mar-02	0	0	2	0	0	0	5	7	2	0
Apr-02	1	1	0	1	0	0	3	8	7	0
May-02	1	0	1	2	0	0	4	8	2	0
Jun-02	2	0	0	0	0	0	2	8	4	0
Jul-02	1	0	0	0	0	0	6	8	4	0
Aug-02	0	0	0	0	0	1	2	10	8	0
Sep-02	0	0	1	0	0	0	0	3	7	0
Oct-02	1	0	0	0	0	0	3	8	5	0
Nov-02	0	0	0	0	0	0	3	5	2	0
Dec-02	0	0	0	0	0	1	2	2	3	0
Jan-03	0	0	0	0	0	0	2	1	1	0
Feb-03	1	0	1	0	0	0	1	3	4	0
Mar-03	2	0	0	4	0	1	4	2	9	0
Apr-03	4	1	0	1	0	0	4	16	4	0
May-03	1	0	0	0	0	0	5	10	2	0
Jun-03	0	1	0	1	0	0	2	9	2	0

Plain Township: Number of improvement location permits by month and by type

Jul-03	1	0	1	0	0	0	5	9	1	0
Aug-03	0	0	2	0	0	0	2	6	1	0
Sep-03	1	1	0	2	0	0	4	8	4	0
Oct-03	0	1	0	0	0	0	3	7	2	0
Nov-03	0	1	1	0	0	0	2	2	4	0
Dec-03	0	0	0	0	0	1	0	2	2	0
Jan-04	0	1	0	0	0	0	1	0	2	0
Feb-04	0	1	0	0	0	0	3	5	2	0
Mar-04	0	0	1	0	0	0	5	4	4	0
Apr-04	1	0	0	0	0	0	7	6	5	0
May-04	2	0	0	1	0	0	2	7	3	0
Jun-04	1	1	1	1	0	0	4	6	2	0
Jul-04	2	0	2	1	0	0	5	5	1	0
Aug-04	2	1	0	0	0	0	2	3	3	0
Sep-04	2	0	0	1	0	0	5	8	2	0
Oct-04	1	1	0	0	0	0	4	5	12	0
Nov-04	0	0	1	0	0	0	0	2	10	0
Dec-04	0	0	1	0	0	0	1	0	7	0
Jan-05	0	0	0	0	0	0	1	1	5	0
Feb-05	1	0	0	1	0	0	0	4	2	0
Mar-05	0	0	0	0	0	0	2	2	6	0
Apr-05	2	0	2	1	0	0	2	6	3	0
May-05	1	0	0	1	0	0	4	6	7	0
Jun-05	0	0	0	1	0	0	1	7	7	0
Jul-05	3	0	1	1	0	0	8	6	10	0
Aug-05	3	0	0	0	0	0	6	6	6	0
Sep-05	4	1	1	0	0	0	4	5	3	0
Oct-05	0	0	1	1	0	0	2	7	4	0
Nov-05	1	1	2	0	0	0	2	5	4	0
Dec-05	0	0	0	0	0	0	2	0	2	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	1	0	0
Feb-00	0	0	0	0	0	0	0	0	0	4
Mar-00	0	0	0	0	0	0	0	1	3	8
Apr-00	1	0	0	0	0	0	1	2	0	0
May-00	1	0	0	0	0	0	2	5	3	0
Jun-00	0	0	0	1	0	0	1	2	1	0
Jul-00	1	0	1	0	0	0	0	1	3	0
Aug-00	1	0	0	0	0	0	2	0	0	0
Sep-00	3	0	0	0	0	0	0	1	0	0
Oct-00	4	0	0	0	0	0	0	2	0	0
Nov-00	0	0	0	0	0	0	1	0	3	0
Dec-00	0	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	1 1	0	0	0	0	0	3	1	0	0
Mar-01 Apr-01	1	0	0	0	0	0	0	1	2	0
May-01	1	0	0	0	0	0	0	1	1	0
Jun-01	0	0	0	0	0	0	2	2	5	0
Jul-01	1	0	0	1	0	0	2	1	0	0
Aug-01	0	0	0	1	0	0	2	0	1	0
Sep-01	0	0	0	0	0	0	1	2	0	0
Oct-01	1	1	0	0	0	0	1	1	1	0
Nov-01	1	0	0	0	0	0	1	3	2	0
Dec-01	0	0	0	0	0	0	0	2	0	0
Jan-02	0	0	0	1	0	0	0	1	1	0
Feb-02	0	0	1	0	0	0	1	0	1	0
Mar-02	0	0	0	0	0	0	1	1	1	0
Apr-02	4	0	1	0	0	0	0	5	0	0
May-02	2	0	0	0	0	0	2	2	2	0
Jun-02	1	0	0	0	0	0	1	2	3	0
Jul-02	0	0	0	0	0	0	0	2	3	0
Aug-02 Sep-02	0	0	1	0	0	0	2	4	1	0
Oct-02	1	0	0	1	0	0	5	2	1	0
Nov-02	0	0	0	0	0	0	1	1	0	0
Dec-02	0	0	0	0	0	0	2	1	0	0
Jan-03	0	0	0	0	0	0	0	0	0	0
Feb-03	1	0	0	0	0	0	0	0	1	0
Mar-03	0	0	0	0	0	0	0	1	3	0
Apr-03	3	0	0	1	0	1	3	6	0	0
May-03	1	0	0	0	0	0	1	3	2	0
Jun-03	1	0	0	0	0	0	4	2	2	0
Jul-03	0	0	0	0	0	0	4	2	1	0
Aug-03	2	0	0	0	0	0	2	2	3	0
Sep-03	1	0	0	0	0	0	0	1	0	0
Oct-03	0	0	0	0	0	0	1	0	1	0

Prairie Township: Number of improvement location permits by month and by type

Nov-03	0	0	1	0	0	1	0	0	1	0
Dec-03	0	0	0	0	0	0	1	1	1	0
Jan-04	1	0	0	0	0	0	0	0	0	0
Feb-04	0	0	0	0	0	0	0	2	1	0
Mar-04	2	0	0	0	0	0	0	2	0	0
Apr-04	1	0	0	0	0	0	3	5	3	0
May-04	1	0	0	0	0	0	2	3	1	0
Jun-04	1	0	1	0	0	1	1	0	1	0
Jul-04	0	0	0	0	0	0	1	3	3	0
Aug-04	1	0	0	1	0	0	2	1	3	0
Sep-04	2	1	0	0	0	0	0	1	3	0
Oct-04	2	0	0	0	0	0	2	1	0	0
Nov-04	0	0	0	0	0	0	0	2	0	0
Dec-04	0	0	0	0	0	0	0	0	0	0
Jan-05	0	0	0	0	0	0	0	0	0	0
Feb-05	0	0	0	0	0	0	0	0	1	0
Mar-05	1	0	0	0	0	0	0	0	2	0
Apr-05	1	0	0	0	0	0	1	2	1	0
May-05	0	0	0	0	0	0	0	1	2	0
Jun-05	0	0	0	0	0	0	4	1	1	0
Jul-05	1	0	0	0	0	0	2	0	0	0
Aug-05	0	0	0	0	0	0	0	2	0	0
Sep-05	0	0	0	1	0	0	0	1	0	0
Oct-05	1	0	0	0	0	0	0	0	0	0
Nov-05	0	1	0	0	0	0	1	0	1	0
Dec-05	1	0	0	0	0	0	0	0	0	0

	I	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	1	0	3
Feb-00	0	0	0	0	0	0	0	0	0	1
Mar-00	2	0	0	0	0	0	0	0	1	3
Apr-00	1	0	0	0	0	0	0	1	0	0
May-00	0	0	0	0	0	0	0	1	2	0
Jun-00	1	0	0	0	0	1	1	0	0	0
Jul-00	3	0	0	0	0	0	2	0	1	0
Aug-00	2	1	0	0	0	0	0	0	2	0
Sep-00	4	0	0	0	0	0	0	0	1	0
Oct-00	0	0	0	0	0	0	1	2	0	0
Nov-00	1	0	0	0	0	0	0	1	2	0
Dec-00	0	0	0	0	0	0	0	0	0	0
Jan-01	0	0	0	0	0	0	0	0	0	0
Feb-01	0	0	0	0	0	0	0	0	1	0
Mar-01	2	0	0	0	0	0	0	2	2	0
Apr-01	0	0	0	0	0	0	1	0	0	0
May-01	2	0	0	0	0	0	0	0	0	0
Jun-01	0	0	0	0	0	0	0	0	1	0
Jul-01	2	0	0	0	0	0	1	0	0	0
Aug-01	2	0	0	0	0	0	0	2	2	0
Sep-01	1	0	0	0	0	0	0	2	1	0
Oct-01	2	0	0	0	0	0	2	1	0	0
Nov-01	3	0	0	0	0	0	0	2	1	0
Dec-01	2	0	0	0	0	0	0	0	0	0
Jan-02	0	0	0	0	0	0	1	0	1	0
Feb-02	1	0	0	0	0	0	1	0	1	0
Mar-02	0	0	0	0	0	0	0	1	0	0
Apr-02	4	0	0	0	0	0	0	2	0	0
May-02	1	0	0	0	0	1	0	1	0	0
Jun-02	1	0	0	0	0	0	2	0	0	0
Jul-02	1	0	0	0	0	0	0	3	1	0
Aug-02	2	0	0	0	0	0	0	0	1	0
Sep-02	2	0	0	0	0	0	1	0	1	0
Oct-02	2	1	0	0	0	0	0	0	1	0
Nov-02	1	0	0	0	0	0	0	1	1	0
Dec-02	1	0	0	0	0	0	1	1	1	0
Jan-03	1	1	0	0	0	0	0	0	0	0
Feb-03	1	0	0	0	0	0	0	2	1	0
Mar-03	2	0	0	0	0	0	1	0	1	0
Apr-03	0	0	0	0	0	0	2	0	0	0
May-03	0	1	0	0	0	0	0	1	1	0
Jun-03	1	0	0	0	0	0	0	0	2	0

Scott Township: Number of improvement location permits by month and by type

Jul-03	2	0	0	0	0	0	0	2	0	0
Aug-03	0	0	0	0	0	1	1	3	0	0
Sep-03	1	0	0	0	0	0	0	1	0	0
Oct-03	0	0	0	1	0	0	0	0	1	0
Nov-03	0	0	0	0	0	0	0	0	0	0
Dec-03	1	0	0	0	0	0	0	0	0	0
Jan-04	1	0	0	0	0	0	0	0	0	0
Feb-04	2	0	0	0	0	0	2	1	4	0
Mar-04	2	0	0	0	0	0	0	0	6	0
Apr-04	4	0	0	0	0	0	0	3	0	0
May-04	2	0	0	0	0	0	1	1	0	0
Jun-04	1	0	0	0	0	0	0	2	0	0
Jul-04	2	0	0	0	0	0	0	3	0	0
Aug-04	2	0	0	0	0	0	0	1	1	0
Sep-04	2	0	0	0	0	0	1	0	1	0
Oct-04	2	0	0	0	0	0	1	0	0	0
Nov-04	1	0	0	0	0	0	1	0	0	0
Dec-04	0	0	0	0	0	0	0	0	0	0
Jan-05	2	0	0	0	0	0	1	1	0	0
Feb-05	0	1	0	0	0	0	1	1	1	0
Mar-05	2	0	0	0	0	0	0	0	0	0
Apr-05	3	0	0	0	0	0	1	1	0	0
May-05	1	0	0	0	0	0	2	2	0	0
Jun-05	3	0	0	0	0	0	1	1	2	0
Jul-05	4	1	0	0	0	0	0	2	0	0
Aug-05	0	0	0	0	0	0	1	0	0	0
Sep-05	1	1	0	0	0	0	0	2	1	0
Oct-05	0	0	0	0	0	0	0	1	0	0
Nov-05	0	0	0	0	0	0	0	2	0	0
Dec-05	2	0	0	0	0	0	0	0	0	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	1	0	1
Feb-00	0	0	0	0	0	0	0	0	0	3
Mar-00	0	0	0	0	0	0	2	2	1	4
Apr-00	3	0	0	1	0	0	3	8	0	0
May-00	0	0	0	0	0	1	1	2	1	0
Jun-00	0	0	0	2	0	0	2	2	1	0
Jul-00	1	0	0	0	0	0	0	1	1	0
Aug-00	2	2	0	1	0	0	3	1	2	0
Sep-00	0	0	0	0	0	0	0	2	0	0
Oct-00	1	0	0	0	0	0	1	2	2	0
Nov-00	0	0	0	0	0	0	4	1	1	0
Dec-00	1	0	0	0	0	0	0	1	0	0
Jan-01	3	0	0	0	0	0	0	1	1	0
Feb-01	0	0	0	0	0	0	0	1	0	0
Mar-01	0	0	0	0	0	0	2	0	0	0
Apr-01	1	0	0	0	0	0	3	3	0	0
May-01	1	0	0	2	0	0	3	3	3	0
Jun-01	0	0	0	3	0	0	3	0	0	0
Jul-01	3	0	0	1	0	0	3	1	3	0
Aug-01	0	0	0	1	0	0	3	6	4	0
Sep-01	0	0	0	0	0	0	1	5	2	0
Oct-01	1	0	0	0	0	0	6	8	2	0
Nov-01	2	0	0	1	0	0	2	4	0	0
Dec-01	0	0	0	0	0	0	0	3	1	0
Jan-02	1	0	0	0	0	0	1	2	0	0
Feb-02	0	0	0	0	0	0	1	2	1	0
Mar-02	0	0	0	0	0	0	2	1	1	0
Apr-02	2	0	0	1	0	0	1	5	3	0
May-02	2	0	0	2	0	0	2	3	4	0
Jun-02		0	0	1	0	0	1	4	4	0
Jul-02	1	0	0	1	0	0	1	3	0	0
Aug-02	1 2	0	0	1	0	0	2	6 1	0	0
Sep-02 Oct-02	2	0	0	0	0	0	3 1	2	2	0
Nov-02	0	0	0	1	0	0	3	2	2	0
Dec-02	0	0	0	1	0	0	3	0	0	0
Jan-03	1	0	0	0	0	0	0	2	1	0
Feb-03	0	0	0	0	0	0	0	2	0	0
Mar-03	0	0	0	0	0	1	1	8	1	0
Apr-03	2	0	0	1	0	0	1	1	0	0
May-03	1	0	0	0	0	0	2	5	3	0
Jun-03	1	0	0	0	0	0	1	5	3	0
Jul-03	0	0	0	2	0	0	1	5	1	0
Aug-03	0	0	0	0	0	0	2	6	2	0
Sep-03	1	0	0	1	0	0	4	2	1	0
Oct-03	3	0	0	1	0	0	5	2	0	0
00100	0	0	0		0	5	0	<u> </u>	0	5

Seward Township: Number of improvement location permits by month and by type

Nov-03	0	0	0	0	0	0	2	0	0	0
Dec-03	1	0	0	0	0	0	0	1	3	0
Jan-04	0	0	0	2	0	0	2	0	1	0
Feb-04	0	0	0	0	0	0	1	3	1	0
Mar-04	2	0	0	0	0	0	1	2	0	0
Apr-04	1	0	0	1	0	0	1	6	2	0
May-04	1	0	0	0	0	0	0	6	3	0
Jun-04	2	0	0	1	0	0	6	6	1	0
Jul-04	2	0	0	1	0	0	1	5	3	0
Aug-04	0	0	0	0	0	0	4	6	3	0
Sep-04	0	0	0	0	0	0	0	5	1	0
Oct-04	3	0	0	2	0	0	2	0	0	0
Nov-04	0	0	0	2	0	0	1	2	0	0
Dec-04	2	0	0	0	0	0	1	2	2	0
Jan-05	1	0	0	0	0	0	3	0	0	0
Feb-05	0	0	0	0	0	0	1	0	0	0
Mar-05	3	0	0	2	0	0	1	1	1	0
Apr-05	0	0	0	1	0	0	3	2	1	0
May-05	0	0	0	0	0	0	3	1	0	0
Jun-05	1	0	0	1	0	0	3	2	3	0
Jul-05	1	0	0	0	0	0	2	1	1	0
Aug-05	2	0	0	0	0	0	2	3	1	0
Sep-05	2	0	0	1	0	0	0	1	1	0
Oct-05	3	0	0	1	0	0	2	0	2	0
Nov-05	1	0	0	0	0	0	0	0	0	0
Dec-05	0	0	0	0	0	0	1	0	0	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	1	0	1	3
Feb-00	0	0	0	0	0	0	0	0	0	12
Mar-00	0	0	0	1	0	0	1	6	3	7
Apr-00	1	1	0	0	0	0	7	11	3	0
May-00	2	0	0	1	0	1	5	12	7	0
Jun-00	2	2	1	1		0	2	12		
	 1	2			1				1	0
Jul-00			0	2	0	1	9	14	4	0
Aug-00	1	0	0	3	0	0	4	15	8	0
Sep-00	2	0	0	1	0	1	5	14	4	0
Oct-00	0	0	0	0	0	0	4	11	6	0
Nov-00	1	1	0	0	0	0	3	4	3	0
Dec-00	1	0	0	0	0	0		4		0
Jan-01	0	3	0	0	0	0	3	5	5	0
Feb-01	0	1	0	1	0	0	0	6	4	0
Mar-01	0	1	0	0	0	1	3	12	5	0
Apr-01	1	1	0	1	0	0	6	19	10	0
May-01	1	0	0	2	0	1	11	28	5	0
Jun-01	1	1	0	2	3	2	7	17	1	0
Jul-01	1	0	0	0	0	1	12	10	4	0
Aug-01	0	1	0	2	0	0	8	12	9	0
Sep-01	1	1	0	0	0	0	3	12	5	0
Oct-01	0	1 1	0	0	0	0	6 5	5 5	6	0
Nov-01	1	1	0	2 1	0		5 1	5 2	8	0
Dec-01	0	1	0	1	0	0	0	3	9 1	0
Jan-02 Feb-02	0	0			0	0		6	7	0
Mar-02	0	0	0	0 1	0	0	1	5	3	0
Apr-02	0	0	0	1	0	0	6	12	3	0
May-02	1	1	0	1	0	0	9	20	11	0
Jun-02	0	0	0	1	0	0	5	16	6	0
Jul-02	1	0	0	3	0	0	9	14	3	0
Aug-02	1	0	0	1	0	1	9	9	3	0
Sep-02	1	1	0	1	0	0	4	10	3	0
Oct-02	1	4	0	1	0	0	8	16	5	0
Nov-02	0	2	0	0	0	0	3	8	5	0
Dec-02	0	1	0	1	0	0	1	6	5	0
Jan-03	0	0	0	0	1	0	3	3	5	0
Feb-03	1	0	0	0	0	0	0	10	1	0
Mar-03	0	2	0	0	0	0	1	9	0	0
Apr-03	2	1	1	0	0	0	8	14	8	0
May-03	1	2	0	3	0	0	7	17	3	0
Jun-03	1	1	0	3	0	0	8	21	6	0
Jul-03	0	3	0	2	0	0	8	2	13	0
Aug-03	0	0	0	1	0	1	8	7	5	0
Sep-03	2	1	0	2	0	0	4	18	4	0
Oct-03	0	0	0	3	0	1	6	15	5	0
001-03	U	0	0	5	U		0	15	5	0

Tippecanoe Township: Number of improvement location permits by month and by type

Nov-03	0	0	0	1	0	0	2	6	7	0
Dec-03	1	0	0	3	0	0	1	8	1	0
Jan-04	2	0	0	0	0	0	0	5	0	0
Feb-04	1	0	0	1	0	0	3	4	4	0
Mar-04	0	0	0	0	0	0	4	12	2	0
Apr-04	0	0	0	0	0	0	7	19	5	0
May-04	2	0	0	1	0	0	3	11	1	0
Jun-04	2	0	0	2	0	0	6	9	6	0
Jul-04	0	0	0	3	0	0	6	12	6	0
Aug-04	0	2	1	0	0	0	2	15	3	0
Sep-04	1	0	0	2	0	0	10	9	7	0
Oct-04	1	0	0	1	1	0	3	3	5	0
Nov-04	1	0	0	1	0	0	5	4	4	0
Dec-04	1	1	0	1	0	0	1	3	3	0
Jan-05	3	0	0	0	0	0	0	2	5	0
Feb-05	1	0	0	0	0	0	0	7	3	0
Mar-05	0	0	0	0	0	0	3	1	2	0
Apr-05	0	0	0	1	0	1	8	4	6	0
May-05	0	1	0	0	0	0	8	8	3	0
Jun-05	0	1	0	0	0	1	5	16	4	0
Jul-05	0	0	0	0	0	0	3	9	4	0
Aug-05	1	0	0	1	0	0	3	13	6	0
Sep-05	0	1	0	2	0	0	6	18	6	0
Oct-05	0	1	0	3	0	0	8	7	6	0
Nov-05	0	1	0	0	0	0	2	2	3	0
Dec-05	0	0	0	1	0	0	2	2	1	0

	I	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	1	1	1	7
Feb-00	0	0	0	0	0	0	0	0	0	18
Mar-00	1	0	2	0	0	0	4	6	2	10
Apr-00	0	0	0	2	0	0	11	14	5	0
May-00	3	0	0	0	0	0	5	13	3	0
Jun-00	2	1	0	1	0	0	2	13	12	0
Jul-00	0	0	0	1	0	0	6	6	13	0
Aug-00	2	2	0	0	0	1	3	7	8	0
Sep-00	1	5	0	1	0	0	8	12	6	0
Oct-00	1	0	1	0	0	0	4	10	7	0
Nov-00	0	0	1	2	0	0	3	2	7	0
Dec-00	0	0	0	0	0	0	0	2	1	0
Jan-01	0	0	0	0	0	1	2	3	1	0
Feb-01	0	1	0	1	0	0	0	0	0	0
Mar-01	1	3	0	0	0	0	2	9	5	0
Apr-01	0	2	0	3	0	1	9	16	11	0
May-01	0	0	0	0	0	1	5	13	7	0
Jun-01	0	1	0	2	0	0	8	9	8	0
Jul-01	2	2	0	0	0	3	5	8	2	0
Aug-01	2	1	1	1	0	1	2	3	4	0
Sep-01	1	0	0	1	0	1	2	14	10	0
Oct-01	0	1	0	1	0	0	4	7	6	0
Nov-01	0	2	0	0	1	0	3	6	2	0
Dec-01	1	0	0	0	0	0	1	6	2	0
Jan-02	0	0	0	2	0	0	4	5	3	0
Feb-02	1	0	0	0	0	0	1	5	4	0
Mar-02	1	0	0	0	0	0	3	3	2	0
Apr-02	1	2	0	0	3	0	6	15	1	0
May-02	3	6	0	0	0	0	2	8	5	0
Jun-02	2	0	0	0	0	0	6	8	5	0
Jul-02	0	1	0	0	0	1	8	16	6	0
Aug-02	0	1	0	2	0	0	5	14	4	0
Sep-02	2	1	2	0	0	0	1	13	6	0
Oct-02	1	1	1	0	0	1	8	11	4	0
Nov-02	1	1	0	1	0	0	3	9	2	0
Dec-02	0	0	0	0	0	0	4	4	4	0
Jan-03	0	0	0	8	0	0	1	5	3	0
Feb-03	0	0	0	0	0	0	3	7	0	0
Mar-03	1	0	0	0	0	0	4	11	3	0
Apr-03	3	0	0	0	0	0	4	13	8	0
May-03	1	0	0	0	0	0	5	7	3	0
Jun-03	0	1	0	2	0	0	6	9	6	0
Jul-03	0	1	0	0	0	0	4	7	7	0
Aug-03	2	3	0	0	1	0	8	13	2	0
Sep-03	2	0	0	1	0	0	7	10	6	0
3ep-03	2	U	U	1	U	U	1	10	U	U

Turkey Creek Township: Number of improvement location permits by month and by type

Oct-03	2	1	0	0	0	0	11	12	13	0
Nov-03	0	0	0	0	1	0	4	7	9	0
Dec-03	1	1	0	2	0	2	1	7	6	0
Jan-04	1	0	0	1	0	0	1	2	3	0
Feb-04	0	0	0	5	0	0	0	1	1	0
Mar-04	1	1	0	0	1	0	4	7	8	0
Apr-04	0	1	0	0	1	0	10	7	9	0
May-04	1	1	1	0	0	2	6	9	6	0
Jun-04	0	1	0	1	0	1	9	8	2	0
Jul-04	2	2	0	1	1	0	3	12	3	0
Aug-04	0	1	0	0	0	0	7	8	8	0
Sep-04	1	0	0	2	1	0	5	14	13	0
Oct-04	3	0	0	0	0	0	7	11	8	0
Nov-04	0	3	0	0	1	1	6	5	3	0
Dec-04	2	1	0	0	0	0	4	6	4	0
Jan-05	2	1	0	0	0	0	2	4	1	0
Feb-05	1	1	0	1	0	0	1	3	4	0
Mar-05	0	1	0	0	0	1	3	8	3	0
Apr-05	1	0	0	0	1	0	4	4	3	0
May-05	1	1	0	0	0	0	8	12	4	0
Jun-05	1	0	0	0	0	1	5	9	2	0
Jul-05	0	2	0	0	0	0	8	7	5	0
Aug-05	0	3	1	0	0	1	1	3	4	0
Sep-05	0	1	0	0	0	1	1	12	8	0
Oct-05	0	2	0	1	0	0	3	6	5	0
Nov-05	2	1	0	3	0	0	5	5	10	0
Dec-05	0	1	0	0	0	2	3	1	0	0

		G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	2
Feb-00	0	0	0	0	0	0	0	0	0	5
Mar-00	0	1	0	1	0	0	2	0	1	4
Apr-00	0	0	0	0	0	0	3	7	4	0
May-00	0	0	0	3	0	0	3	7	4	0
Jun-00	0		2			0		5	3	
Jul-00	1	0	0	1	0	1	0	4	2	0
	1	0				0	3		3	
Aug-00	0	0	0	0	0	0	3 1	2 4	2	0
Sep-00					0		1			
Oct-00	1 0	0	0	2 1	0	0		0	2	0
Nov-00			0		0	0	0			0
Dec-00	0	0	0	0	0	0	1	2	0	0
Jan-01	2	0	0	0	0	0	0	0	3	0
Feb-01	1	0	0	0	0	0	1	1	2	0
Mar-01	0	1	2	1	0	2	2	2	4	0
Apr-01	0	1	0	1	0	0	8	2	1	0
May-01	0	0	0	0	0	0	2	4	3	0
Jun-01	1	2	0	0	0	0	3	3	4	0
Jul-01	0	0	0	0	0	0	1	5	2	0
Aug-01	3	0	0	0	0	0	8	4	3	0
Sep-01	1	0	0	0	0	0	0	4	2	0
Oct-01	1	0	0	0	0	0	2	3	2	0
Nov-01	1	0	0	0	0	0	2	4	0	0
Dec-01	0	0	1	1	0	0	1	0	0	0
Jan-02	1	0	0	0	0	0	1	3	1	0
Feb-02	0	0	0	0	1	0	3	5	1	0
Mar-02	1	1	0	0	0	1	2	3	1	0
Apr-02	0	0	1	0	0	0	3	2	4	0
May-02	2	0	0	1	0	0	6	3	6	0
Jun-02	0	1	0	0	0	0	6	5	4	0
Jul-02	1	0	0	1	0	0	9	10	1	0
Aug-02	0	0	0	1	0	0	3	3	1	0
Sep-02	0	0	0	0	0	0	2	7	2	0
Oct-02	0	0	1	1	0	0	2	1	3	0
Nov-02	0	1	0	1	0	0	3	0	8	0
Dec-02	0	0	0	0	0	0	1	0	1	0
Jan-03	0	0	0	0	0	0	2	0	1	0
Feb-03	0	0	0	0	0	0	1	3	0	0
Mar-03	0	0	1	0	0	0	2	4	2	0
Apr-03	0	0	0	0	0	0	3	4	0	0
May-03	1	0	1	0	0	0	4	5	5	0
Jun-03	1	0	0	1	0	1	5	7	0	0
Jul-03	0	0	0	1	0	0	3	8	4	0
Aug-03	4	0	0	3	0	2	2	1	4	0
Sep-03	1	0	1	1	0	0	5	6	1	0
Oct-03	2	1	1	0	0	0	3	8	2	0
Nov-03	1	0	0	0	0	2	1	4	2	0

Van Buren Township: Number of improvement location permits by month and by type

Dec-03	1	0	0	0	0	0	0	3	2	0
Jan-04	0	0	0	0	0	0	0	0	0	0
Feb-04	0	0	0	0	0	0	1	2	1	0
Mar-04	1	0	0	0	0	0	1	1	4	0
Apr-04	1	0	0	1	0	0	5	2	6	0
May-04	0	1	0	0	0	0	0	4	1	0
Jun-04	2	0	0	0	0	1	3	1	8	0
Jul-04	0	0	1	0	0	1	3	3	2	0
Aug-04	0	0	1	0	0	0	3	1	3	0
Sep-04	0	0	0	0	0	0	0	3	4	0
Oct-04	1	0	1	1	0	1	5	4	0	0
Nov-04	0	0	0	0	0	0	3	3	2	0
Dec-04	1	0	0	0	0	1	1	4	2	0
Jan-05	0	0	0	0	0	0	0	2	1	0
Feb-05	1	1	0	0	0	0	1	1	2	0
Mar-05	1	0	0	0	0	0	1	1	2	0
Apr-05	2	0	0	1	0	0	4	3	2	0
May-05	1	1	0	0	0	0	2	2	7	0
Jun-05	2	0	0	0	0	0	1	2	2	0
Jul-05	1	0	1	0	0	0	6	4	1	0
Aug-05	1	0	0	0	0	0	3	1	6	0
Sep-05	1	0	2	0	0	0	2	7	2	0
Oct-05	3	0	1	0	0	0	3	2	4	0
Nov-05	1	0	2	0	0	0	2	3	2	0
Dec-05	1	0	0	0	0	0	3	3	1	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	0	0	0	2
Feb-00	0	0	0	0	0	0	0	0	0	4
Mar-00	0	0	0	0	0	0	1	1	0	3
Apr-00	2	0	0	0	1	1	1	3	0	0
May-00	1	1	0	1	0	0	5	6	1	0
Jun-00	4	0	0	0	0	0	2	2	0	0
Jul-00	1	1	0	0	0	0	4	2	1	0
Aug-00	0	1	0	0	0	0	2	1	0	0
Sep-00	1	0	0	0	0	1	1	1	0	0
Oct-00	2	1	0	1	0	0	2	1	0	0
Nov-00	0	1	0	0	0	0	0	1	1	0
Dec-00	1	0	0	0	0	0	1	0	0	0
Jan-01	0	0	0	0	0	0	2	2	3	0
Feb-01	1	0	0	0	0	0	0	0	0	0
Mar-01	1	0	0	0	0	1	1	0	0	0
Apr-01	0	0	0	0	0	0	4	2	2	0
May-01	3	0	0	0	0	1	3	3	2	0
Jun-01	2	1	0	0	0	0	2	2	0	0
Jul-01	1	0	0	0	0	0	1	3	2	0
Aug-01	0	0	0	0	0	0	3	2	2	0
Sep-01	0	0	0	1	0	0	4	1	2	0
Oct-01	1	0	0	0	0	0	3	1	0	0
Nov-01	0	0	0	1	0	0	2	0	1	0
Dec-01	0	0	0	0	0	0	1	1	0	0
Jan-02	0	0	0	0	0	0	0	0	0	0
Feb-02	1	0	0	0	0	0	1	2	2	0
Mar-02	0	0	0	0	0	0	1 2	1 1	2	0
Apr-02	1 1	0	0	1 0	0	0	2	2		0
May-02 Jun-02	0	1	0	0	0	0	1	2 7	2 0	0
Jul-02	1	0	1	0	0	0	1	2	0	0
Aug-02	2	0	0	0	0	0	3	6	1	0
Sep-02	1	0	0	0	0	0	0	2	1	0
Oct-02	3	0	0	0	0	0	1	5	0	0
Nov-02	0	0	0	0	0	0	0	2	0	0
Dec-02	0	0	0	0	0	0	0	0	1	0
Jan-03	0	0	0	0	0	0	0	0	0	0
Feb-03	1	0	0	0	0	0	1	3	0	0
Mar-03	1	1	0	0	0	0	1	2	0	0
Apr-03	0	0	0	0	0	0	1	5	4	0
May-03	2	0	0	0	0	0	3	5	1	0
Jun-03	1	1	0	0	0	0	2	3	2	0
Jul-03	0	0	0	0	0	0	1	6	0	0
Aug-03	1	0	0	0	0	0	3	1	0	0
Sep-03	2	0	0	0	0	0	3	3	1	0
Oct-03	0	0	0	0	0	0	2	3	2	0

Washington Township: Number of improvement location permits by month and by type

Nov-03	1	0	0	0	0	0	1	1	0	0
Dec-03	0	0	0	0	0	0	0	0	0	0
Jan-04	0	0	0	0	0	0	0	0	1	0
Feb-04	0	0	0	0	0	0	2	0	2	0
Mar-04	4	1	0	0	0	0	1	0	3	0
Apr-04	0	2	0	0	0	0	3	5	0	0
May-04	1	1	0	0	0	0	1	3	1	0
Jun-04	0	0	0	0	0	1	0	4	0	0
Jul-04	2	1	0	0	0	0	1	3	1	0
Aug-04	0	0	0	0	0	0	2	1	1	0
Sep-04	1	0	0	1	0	0	2	3	1	0
Oct-04	2	1	0	0	0	0	3	3	0	0
Nov-04	2	0	1	0	0	0	1	2	0	0
Dec-04	1	1	0	0	0	0	0	1	1	0
Jan-05	0	0	1	0	0	0	0	0	0	0
Feb-05	1	0	0	0	0	0	0	1	2	0
Mar-05	0	0	0	0	0	0	1	1	2	0
Apr-05	1	0	1	0	0	0	2	4	1	0
May-05	0	0	0	0	0	1	0	2	0	0
Jun-05	2	0	1	0	1	0	4	1	1	0
Jul-05	0	0	0	0	0	0	3	3	2	1
Aug-05	2	0	0	0	0	0	1	2	0	0
Sep-05	0	0	0	1	0	0	3	2	1	0
Oct-05	2	0	0	2	0	0	2	0	0	0
Nov-05	0	0	0	0	0	0	1	2	1	0
Dec-05	0	0	1	0	0	0	0	1	0	0

	1	G	Н	С	E	F	D	В	Α	Other
Jan-00	0	0	0	0	0	0	1	1	0	6
Feb-00	0	0	0	0	0	0	0	0	0	4
Mar-00	0	0	0	0	0	1	3	1	4	11
Apr-00	0	1	0	0	1	0	4	7	11	0
May-00	2	1	0	0	0	1	4	4	11	0
Jun-00	0	0	0	2	0	0	5	4	6	0
Jul-00	0	0	0	1	0	0	5	6	8	0
Aug-00	0	0	2	0	0	0	3	5	5	0
Sep-00	1	1	0	0	1	0	4	6	5	0
Oct-00	0	0	0	0	0	0	12	2	3	0
Nov-00	2	0	0	0	0	0	2	2	5	0
Dec-00	1	0	0	0	0	0	0	0	1	0
Jan-01	0	0	1	0	0	0	0	1	7	0
Feb-01	0	0	0	0	0	0	2	1	8	0
Mar-01	1	0	0	1	0	0	5	6	3	0
Apr-01	1	1	0	0	1	0	4	11	10	0
May-01	1	0	0	0	0	0	9	8	5	0
Jun-01	1	0	0	1	0	0	10	13	4	0
Jul-01	1	0	0	0	0	1	4	7	3	0
Aug-01	1	2	0	0	0	0	6	5	3	0
Sep-01	1	0	2	0	0	0	5	7	3	0
Oct-01	0	1	0	0	1	0	5	5	10	0
Nov-01	0	2	0	0	0	0	2	6	3	0
Dec-01	1	0	0	0	0	0	0	1	3	0
Jan-02	0	0	0	0	0	0	1	3	3	0
Feb-02	0	0	0	0	0	0	1	8	4	0
Mar-02	1 2	1 0	1	0	0	0	3 6	5 9	8	0
Apr-02 May-02	<u> </u>	2	0	0	0	0	7	9 12	8	0
Jun-02	2	1	0	0	0	0	12	6	5	0
Jul-02	1	0	1	0	1	0	7	6	4	0
Aug-02	0	0	0	3	0	0	5	5	7	0
Sep-02	1	0	0	1	0	0	7	7	2	0
Oct-02	2	0	2	0	0	0	6	5	4	0
Nov-02	1	1	0	1	1	0	5	7	4	0
Dec-02	0	0	0	0	0	0	1	0	10	0
Jan-03	1	1	0	0	0	0	0	1	5	0
Feb-03		0	0	0	0	0	0	4	2	0
Mar-03	1	0	0	0	0	0	3	9	4	0
Apr-03	2	0	0	0	0	0	6	10	9	0
May-03	0	1	0	1	0	0	4	11	9	0
Jun-03	0	0	1	0	0	0	11	8	5	0
Jul-03	2	0	0	1	0	0	4	5	2	0
Aug-03	2	1	0	1	0	0	5	5	9	0
Sep-03		0	0	1	0	0	7	10	1	0
Oct-03	0	0	0	1	0	0	3	8	5	0

Wayne Township: Number of improvement location permits by month and by type

Nov-03	1	0	0	0	0	0	2	2	3	0
Dec-03	0	1	0	0	0	0	2	2	4	0
Jan-04	1	0	1	0	0	0	1	1	4	0
Feb-04	1	0	0	0	0	0	2	1	3	0
Mar-04	1	0	0	0	0	0	0	13	8	0
Apr-04	0	0	0	0	0	0	8	9	6	0
May-04	0	1	0	1	0	0	8	7	4	0
Jun-04	1	0	1	1	0	1	10	13	3	0
Jul-04	1	0	0	0	0	0	3	11	9	0
Aug-04	1	0	0	0	0	0	5	4	1	0
Sep-04	2	0	1	1	0	0	3	10	5	0
Oct-04	3	1	0	0	0	0	3	6	4	0
Nov-04	3	0	0	0	0	0	3	5	6	0
Dec-04	1	0	0	0	0	0	2	3	3	0
Jan-05	1	1	0	0	0	0	2	1	4	0
Feb-05	0	0	0	0	0	0	3	1	2	0
Mar-05	2	0	0	0	0	0	1	2	3	0
Apr-05	0	1	0	1	0	0	5	6	1	0
May-05	1	1	1	0	0	1	7	5	3	0
Jun-05	1	0	0	0	0	0	7	8	2	0
Jul-05	2	0	0	0	0	0	9	6	6	0
Aug-05	0	0	0	0	0	0	5	1	3	0
Sep-05	0	0	0	0	0	0	5	4	6	0
Oct-05	0	0	0	1	0	1	4	1	4	0
Nov-05	0	1	0	0	0	0	2	2	4	0
Dec-05	1	0	0	0	0	0	1	2	3	0

## Appendix C: Technical Details of Data Analysis

For each township, the permits of type A and C were combined and two separate time series forecasting models were created:

- A multiplicative decomposition model (seasonal and trend components) on the number of permits by month.
- A single exponential smoothing model on the number of permits by year.

For each model, a time series forecast of the total number of A and C permits for 2006 and 2007 was created. The average of the two models was taken as our prediction of the number of A and C permits for 2006 and 2007.

Also for each township, permits of type B, D and I were combined, and two separate time series forecasting models were created:

- A multiplicative decomposition model (seasonal and trend components) on the number of permits by month.
- A single exponential smoothing model on the number of permits by year.

For each model, a time series forecast of the total number of B, D and I permits for 2006 and 2007 was created. The average of the two models was taken as our prediction of the number of B, D and I permits for 2006 and 2007.

	Decomposition	Exponential		forecast of A and C
	Method	Smoothing	average	permits
Clay	27.82	18.994	23.407	23
Etna	5.221	16.211	10.716	11
Franklin	5.948	14.702	10.325	10
Harrison	18.604	30.36	24.482	24
Jackson	5.562	17.348	11.455	11
Jefferson	22.323	23.652	22.988	23
Lake	14.855	16.301	15.578	16
Monroe	15.644	23.944	19.794	20
Plain	178.203	103.305	140.754	141
Prarie	18.884	17.365	18.125	18
Scott	11.765	15.739	13.752	14
Seward	52.547	42.632	47.59	48
Tippecanoe	116.132	128.587	122.36	122
Turkey Creek	148.988	135.677	142.333	142
Van Buren	70.149	67.58	68.865	69
Washington	20.492	23.481	21.987	22
Wayne	104.619	75.813	90.216	90

## Projections for 2006 and 2007 A and C Permits, average of methods

	Decompositio	Exponential		forecast of B, D and I
	n Method	Smoothing	average	permits
Clay	81.787	70.026	75.907	76
Etna	51.142	48.857	50	50
Franklin	66.154	49.117	57.636	58
Harrison	105.233	103.636	104.435	104
Jackson	51.149	54.277	52.713	53
Jefferson	95.099	69.439	82.269	82
Lake	48.174	44.2	46.187	46
Monroe	71.701	63.708	67.705	68
Plain	214.56	215.48	215.02	215
Prarie	55.033	37.867	46.45	46
Scott	87.493	63.981	75.737	76
Seward	130.856	125.257	128.057	128
Tippecanoe	331.93	342.74	337.335	337
Turkey Creek	328.371	213.64	271.006	271
Van Buren	171.454	144.437	157.946	158
Washington	107.829	104.629	106.229	106
Wayne	333.87	250.59	292.23	292

## Projections for 2006 and 2007 B, D and I Permits, average of methods