
RUSSELL TOWNSHIP



COMPREHENSIVE LAND USE
GUIDE PLAN: 2015

Stewards Of The Land

ACKNOWLEDGMENTS

APPENDICES

This plan consists of the information and recommendations that are contained in this document, together with appendices which have been adopted by Russell Township and are kept on file in the Township offices. These appendices are listed on Page 82.

Executive Summary

Summary and Land Use Recommendations

This document is the updated comprehensive land use guide plan for Russell Township. In 1993 the Trustees selected a committee of residents and Township officials to manage the updating process. This plan is a result of that effort.

The information and recommendations compiled in the original 1975 plan, *Russell Toward the Future: Guide Plan 1995*, needed to be reviewed and, if necessary, updated. This was to ensure that the environmental capabilities of the land and the wants and needs of Russell's residents were still adequately addressed by the plan. As a matter of course, guide plans are usually reviewed and updated every 20 years or so.

The committee hired professionals to survey Russell's residents and to collect, tabulate and analyze environmental and geographical data. Considerably more information and technology is available today than when the 1975 plan was prepared, so an update was necessary. Professional planners recommended by the committee and hired by the Township Zoning Commission collected and analyzed the data and then recommended the land use policies contained in this plan.

The recommendations for land uses are based upon the capabilities of the natural environment and the wants and needs of the residents. The recommendations are similar to those in the 1975 plan, which included establishing a policy of septic tanks and wells as the primary means of treating sanitary waste and providing water for drinking and other necessary uses.

Land use recommendations and significant findings of the update are summarized below. Detailed explanations can be found within the plan.

1. The land use survey showed that the majority of Russell's residents want the Township to remain the same. Residents are concerned about potential for degradation and are willing to invest in the community to keep Russell green.
2. A groundwater hydrology study showed that Russell's underground aquifers can provide sufficient quantity and quality of water, provided that recommended lot sizes are maintained. However, residents need to be educated to reduce the potential for groundwater contamination. A continuing education program is recommended.
3. Residents see no need for an increase in commercialization.
4. Seven land use categories, or districts, are recommended:
 - a. Rural Open Residential

This district specifies a minimum lot size of five acres. This is the most restrictive district, and is based upon the groundwater hydrology and soil permeability of the land.

b. Rural Residential

This district specifies three-acre-minimum lot size, and is based upon the groundwater hydrology and soil permeability of the land.

c. Crossroads Commercial and Services

This district is set aside for commercial and services uses.

d. Crossroads Office Building

This district is for office building uses.

e. Active Park

This district is for organized recreation facilities, such as playgrounds and ballfields.

f. Passive Park

This district addresses passive recreation areas, such as those set aside for hiking and horseback riding.

g. Environmental Overlay

This district overlays the other five and denotes environmentally sensitive areas such as wetlands, floodplains, riparian corridors and others.

RUSSELL TOWNSHIP LAND USE GUIDE PLAN UPDATE

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CHAPTER I:

PLANNING IN RUSSELL TOWNSHIP

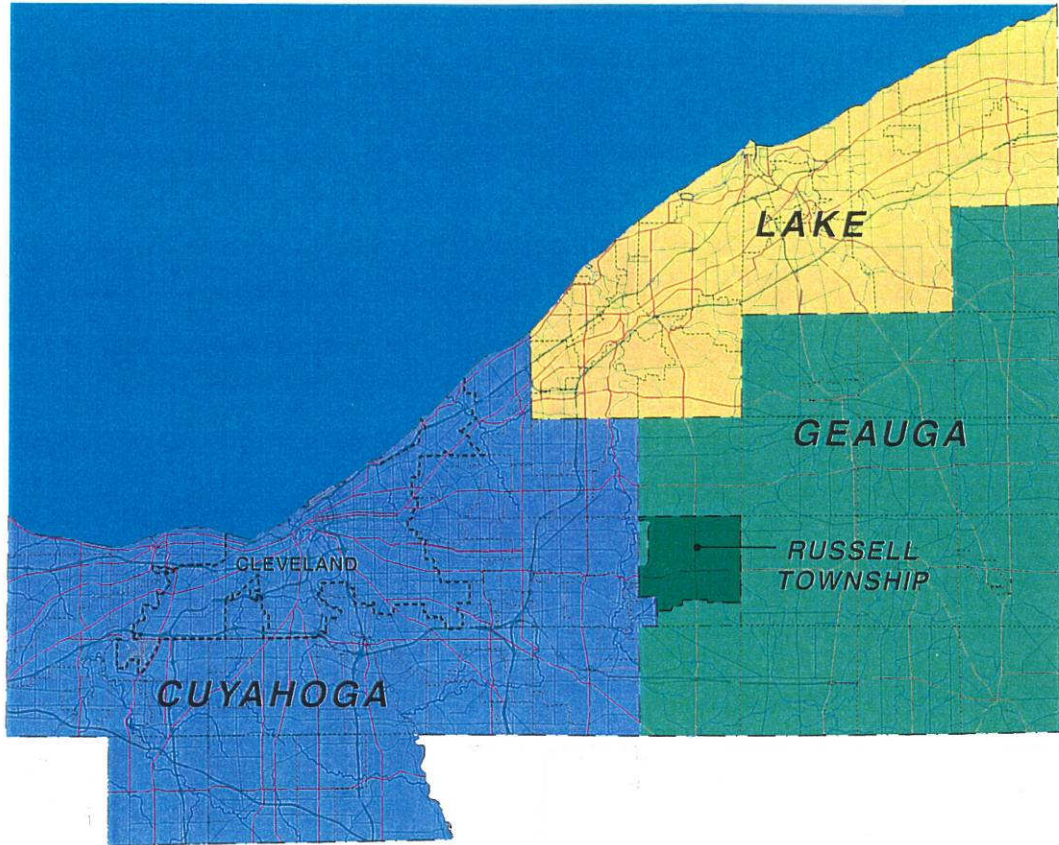


Figure 1. Regional Context

A. Introduction

Russell Township, located on the eastern fringe of the Greater Cleveland Metropolitan Region, is a picturesque rural residential community that has worked hard over the years to maintain its character and environmental quality.

Like other communities located on the outskirts of an expanding metropolitan area, Russell has seen much of its original farmland converted to residential development. Early development consisted of an occasional lot subdivided from a farm. By the mid-1960s several suburban density residential subdivisions were being constructed in and around the Township. As fields gave way to homes, residents began to fear that suburban development would not only destroy the character of the Township, but would cause the natural environmental carrying capacity of the land to be exceeded. This would lead to dry wells, failed septic systems, and air and water pollution.

Russell Township officials have continuously operated with a Zoning Resolution originally approved by its Board of Trustees and residents in 1948, then amended and supplemented in 1960,

1967, 1971 and 1974. Zoning amendments added after 1948 were adopted with the goal of controlling growth to protect the groundwater supply.

Having witnessed the effects that uncontrolled suburban growth was having on neighboring communities, the Russell Trustees met with a group of concerned citizens to ensure that the future growth of Russell Township would take place according to sound planning and environmental criteria. As a result the Zoning Commission and Board of Trustees undertook a series of planning and environmental studies that led to the creation of the Guide Plan, adopted by the Board of Trustees in 1975. (Referred to throughout this document as the *1975 Russell Township Land Use Guide Plan* or the *1975 Guide Plan*). The introduction set the stage by describing the accelerating pace of urban expansion that was taking place in the region:

The ever-expanding Cleveland Metropolitan and Northeastern Ohio Regions have caused increasing need and demand for new developable lands. Western Geauga County and specifically Russell Township, are directly in the path of this expansion.

The Township, with its nineteen and a half square miles of land - characterized by exceptional natural beauty, large undeveloped parcels, good ground water supply, and fresh air - combined with its relative close proximity to the downtown Cleveland Central Business District and the emerging Satellite Business Districts of Euclid, Cleveland Heights, Mentor and Solon - will be a natural choice of developers seeking new lands for residential and/or commercial-industrial development in the near future.¹

In preparing the *1975 Guide Plan*, Township officials held public meetings which revealed that the majority of residents wanted the rural residential character of the Township maintained and the natural environment protected. The plan set out land use recommendations to guide the Township toward that vision while at the same time guarding against rapid and premature land development.

Today, thanks to the foresight of this planning effort, Russell Township is a green oasis, no longer located beyond the fringe of an expanding urban area but now within its boundaries. The Township has grown over the past twenty years, but the growth has taken place according to the goals and objectives set out in the *1975 Guide Plan*. Russell has managed to maintain itself as a rural residential, environmentally-based community.

This current document — *1995 Russell Township Guide Plan*, or simply the *1995 Guide Plan* — is an updated and expanded edition of the *1975 Guide Plan*, and is intended to carry on the policies of responsible land use. The *1975 Guide Plan* was intended to guide the growth of the Township for a period of roughly 20 years. In the fall of 1993, Township officials initiated a planning process to review and update the Plan.

The update process began with the Board of Township Trustees appointing a committee of residents and Township officials to manage and oversee the process for updating the *1975 Guide Plan*. The committee established a process which started with focus group meetings and a Township-wide land use survey. Both were designed to elicit the wants, needs and visions of Russell residents regarding land use and environmental issues. The goal was to revise the parts of the *1975 Guide Plan*

¹ *Russell Toward the Future: Guide Plan 1995*, p.1.

that were no longer current or relevant, to conduct new analysis as necessary, and to provide a vision and direction for the Township over the next 20 years. Substantial similarities remain between the 1975 and the 1995 Plans, but some essential new data has been added and obsolete material has been deleted.

The updated *1995 Russell Township Land Use Guide Plan* was adopted by the Township Trustees on October 2, 1996.

1. The Need for Planning

Ohio laws require that township zoning be based upon a comprehensive plan. This Land Use Guide Plan is primarily intended to provide the planning basis for Township zoning and land use control. However, there are several additional reasons why townships choose to create a land use plan.

First, the planning process allows citizens to play an active role in the long-range growth of their community by helping to articulate a vision of what the community should be in the future. In most ex-urban areas growth is inevitable. It can take place in a piecemeal fashion dictated by private development interests, or it can be guided by the agreed common vision of the community residents. Townships that take the time to create a guide plan have the advantage of controlling the physical development of their community — dictating where development should occur, its general character and density, and at what pace it should proceed.

Second, by careful planning, townships can avoid the problems of rapid population growth and haphazard land development such as demand for expanded public services; traffic congestion; air, water, and soil pollution; health and sanitation problems; and general decline in the health of the ecosystem.

Third, a guide plan aids in the preparation and/or revision of township zoning and other land use resolutions. In Ohio, townships are granted zoning power by the *Ohio Revised Code* (ORC Chapter 519 - Township Zoning). The *ORC* does not set out specific standards for guide plans; however, the courts have increasingly looked for a rationale behind local zoning resolutions that can be used to understand the benefits of zoning and to weigh the public good against the rights of landowners. A guide plan articulates long-range development goals for measuring shorter-term zoning legislative and administrative decisions. The plan identifies the desired land use development patterns. The zoning resolution specifies the range and conditions of use that can occur on parcels of land.

Fourth, once land use policies are adopted, township trustees, zoning and other officials can evaluate all development plans as they compare them with the township's overall development and environmental vision.

The Functions of a Guide Plan.

1. The Guide Plan is an expression of what a **community wants**. It is a statement of **goals**, a listing of **objectives** and a **vision** of what might be.
2. The Guide Plan is fundamentally a guide to the **physical development** of the community, although it also reflects social and economic values. It describes physical features and constraints which must be taken into account in zoning decisions. It identifies the valuable natural resources, scenic areas, and ecosystems which must be protected for the long-term benefit of the community. It translates values into a scheme that describes how, why, when, and where to build, rebuild or preserve the community.
3. The Guide Plan is **long range**, covering anywhere from a 5- to 20-year time period. It is not a snapshot or rigid image of what the community will look like in 20 years — rather it is an expression of current policies that will shape the future. The plan is intended to challenge and inspire with a vision of what might be while providing how to achieve the vision.
4. The Guide Plan, once adopted, serves as a **guide to decision making** by the Township Zoning Commission, Board of Zoning Appeals, and Trustees as well as the County Planning Commission for the many public decisions that affect land use.
5. The Guide Plan is **not** the zoning resolution or the subdivision regulations. It can and should be used as the primary foundation in the preparation of these important land use regulations.

2. Purpose of the Guide Plan Update

The Land Use Guide Plan Update Process, as its name suggests, focused on updating and revising the *1975 Guide Plan*, not replacing it. The intent was to examine those areas of the Plan that were no longer current and to revise them so as to reflect more closely existing conditions and attitudes. The overall organization and the core policies found in the original *1975 Guide Plan* remain the same.

There are three reasons to update a guide plan periodically: (a) the planning period expires, (b) data becomes outdated, and (c) the goals of township residents change. Each of these reasons is examined further below.

(a) Planning Period: Long-range plans are visionary documents that are intended to guide development over a period of time - usually from five to 20 years. The end of the time period is not a target date for the completion of the planning policies. Rather, guide plans set policies for development decisions over the life of the plan. A guide plan is a work in progress and is meant to be adaptable and flexible in order to meet the demands of changing needs and circumstances.

(b) Outdated Data: During the life of a plan, the demographic makeup of a township and its land use patterns change. The existing residents age or leave, while new residents arrive. Land is developed for residential and other uses. The longer the planning period, the more likely it is that the changes in population and land use will be significant and that the planning policies based on original data may no

longer be valid. It is therefore advisable to update the demographic and land use data periodically and to formulate policies that accurately reflect the new demographic and physical character of the township.

(c) **Changing Goals:** Not only does the demographic and land use profile of the township change, but often there is a corresponding change in the goals of the residents. For example, as a township's population increases or decreases, or as the percentage of school age children increases or decreases, there is sometimes a reordering of priorities for land use and development issues.

B. Russell Township

1. History: from founding until 1950

Russell Township's first settler was Gideon Russell who, with his wife and five children, arrived in 1818 from the East Coast. The family cleared an area of land south of Routes 306 and 87 where they built their house.

The Russells were followed by Simon Norton with a wife and daughter and by the John C. Bell family. Clark Robinson came from Newbury and built a log cabin about 1825, then a frame house, which his son replaced about 1867 with a large brick house still existing as a spacious home on Kinsman Road. Early Trustee meetings were held on the top floor. Much later this property was to become the home of the American Society for Metals.²

These settlers were quickly joined by other families who made similar journeys from Connecticut and Massachusetts. At first, Russell was known as the "West Woods" of Newbury; but in 1827 the first township trustees were elected and Russell Township was established. There were 12 electors, males over 21, including four Russells, Clark Robinson, John Lowry, Jonathan Rathbone, John C. Bell, Thomas Manchester, and James M. Smith. They elected three Trustees, a Treasurer, two Overseers of the Poor, two Fence Viewers, a Supervisor of Highways, and a Constable. Clark Robinson was elected Trustee and Constable.

The Township at this time was divided into three tracts: the northern one in the name of the Coit heirs, a strip one mile wide running east and west through the center in the name of the Kinsmans, and the southern tract or Champion tract. Thomas and Frederick Kinsman constructed a road, now Kinsman Road or State Route 87, from the Pennsylvania border to the Cuyahoga River, and sold lots on both sides.

A large branch of the Chagrin River runs from the northeast corner to the southwest corner, and has two major tributaries, Griswold Creek from the north border which joins the river near the southwest

² Sixteen successive owners purchased and sold this parcel of land until William Eisenmann bought the 136 acres of land and saved the house from demolition. In 1956, Mr. Eisenmann donated 100 acres of land to the American Society for Metals. The ASM is headquartered there, and its landmark geodesic dome, designed by Buckminster Fuller, attracts visitors from around the world to the rolling wooded landscape so characteristic of Russell. In 1995, the Geauga Park District purchased over 500 acres of the ASM land, including the original 100 acres donated to ASM by Mr. Eisenmann.

corner, and Silver Creek, which provides extensive and scenic wetlands in the southeast corner, joining the river near the center of the Township.

Russell lost its southwest corner to Chagrin Falls and Cuyahoga County in 1841, when Dr. Justin Vincent secured passage of an act in the Ohio Legislature, transferring 900 acres in Russell to Cuyahoga County. This was rich land and heavily populated next to Chagrin Falls Village. Offered in exchange were 900 acres from Orange Township, which had many gullies, no roads, and few people. The land in Orange was turned down as unsuitable for farming.

As the number of residents in Russell grew, so did the Township's needs; and by 1848 the Township had created the Briar Hill Cemetery, located on the south side of Fairmount Road, west of Chillicothe Road. The cemetery serves as the final resting place for many of Russell's Civil War veterans, and is the site of Russell's annual Memorial Day celebrations. In addition to Briar Hill, a Town Hall was added to Russell's landscape in 1850 and was later used as a Union soldier meeting house during the Civil War.

Russell became mainly an agricultural community, noted for potato farming, grains, milk, and cheese. Blacksmiths, grist mills, saw mills, and distilleries were common.

In 1899, when it came time to establish a Post Office in Russell Township, there was already another Ohio community in existence with the name *Russell*. The name of the Interurban Railroad Stop, *Novelty*, was therefore adopted as the Post Office name. Although there are many stories regarding the origin of the name *Novelty*, legend has it that it seemed a "novelty" in 1898 to have the Interurban railroad from Cleveland pick up milk as well as passengers from the Belle Vernon Dairy Farm. Today, many of the original dairy buildings still stand near Belle Vernon Drive.

By the 1920s the character of the Township was changing. What was an agricultural community started to become a "bedroom community" for increasing numbers of Russell residents who boarded the red trolley cars of the Interurban Line for jobs in Cleveland. Russell had become a desirable residential location for families seeking a rural lifestyle, with access to the City.

There were 10 one-room schools in Russell until 1923, when there was a dispute about centralization of schools in the Township, and especially as to where the new school would be located. As a result, South Russell with its 104 residents, was incorporated as a separate Village, with its students transferring to the Chagrin Falls School District. The other schools consolidated in 1925 to Russell School on Chillicothe Road just north of Kinsman Road.

2. The Changing Township: Russell from 1950 - 1995

In 1950, there were 1,246 persons living in Russell, a population density of approximately one person per 10 acres. By 1960, the population had increased to 3,368 persons - a growth rate of 170 percent - and the population density had increased to one person per 3.7 acres. It was during this period that the 176-lot Hemlock Hills subdivision was approved. At a density of one house per 1½ acres, the development caused concern among some Russell residents who saw the beginning of the suburbanization of the Township.

During the 1960s the population continued to grow but at a reduced rate. By 1970, Russell Township had a population of 4,669 persons, an increase of 38% within a decade, much less than the rapid growth of the Fifties. Population density also increased to one person per 2.7 acres.

Changes were also taking place at the county level. In 1970, Geauga County commissioned a Comprehensive Master Plan which recommended the introduction and implementation of a growth-oriented and urbanized land use development program to be supported by regional sewage treatment plants and public water supply. This program was particularly directed toward the western portion of Geauga County where Russell is located. The sewer and water proposals were rejected by the County Planning Commission's Citizen Advisory Council and, to date, this plan has not been adopted.

During the 1970s, in an effort to protect the environment and to control the location, timing, and character of development in the Township, Russell adopted its *Land Use Guide Plan*. The Plan led to new 3- and 5-acre residential zoning districts over most areas of the Township. The Township continued to grow and by 1980 the population increased to 5,363, an increase of 14.9% in 10 years. The population density by 1980 was one person per 2.3 acres.

By 1990 there were 5,614 people living in Russell at a population density of one person per 2.2 acres. While most of the commercial farms and farm roads have disappeared from the Township, there remains some part-time and hobby farming. The network of roads has remained "rural" in character. This has helped preserve the look of Russell as a rural community and natural environment.

One key to maintaining the quality of the environment has been Russell Township's ability to preserve a great deal of its natural resources -- its rivers, streams, wetlands, and woodlands.

3. Natural Features and the Environment

Just as in 1975, today the majority of residents want to keep Russell green. In the 1995 Township land use survey, they were asked what they liked most about Russell Township. The most mentioned qualities were: rural atmosphere, open spaces, peace and quiet, wildlife and nature, and fresh air. In addition, the "environmental capabilities of the land" was listed as the most important factor to be considered when updating the guide plan.

CHAPTER II:

THE LAND USE GUIDE PLAN UPDATE PROCESS

A. Introduction

The Land Use Guide Plan Update process went through three stages over a period of two and a half years:

- **the Pre-Planning Process**, which began with the decision of the Township Trustees to update the 1975 Guide Plan and progressed through to the creation of the Land Use Guide Plan Update Committee and the search for the planning team;
- **the Public Opinion Process**, which involved a series of focus group meetings and a Township land use survey; and
- **the Plan Update Process**, under the guidance of a planning firm, a three phase process that focused on the actual updating of the Guide Plan document.

The Flow Chart in Figure 2.1 below shows the entire process. The steps in each phase are described on the following pages.

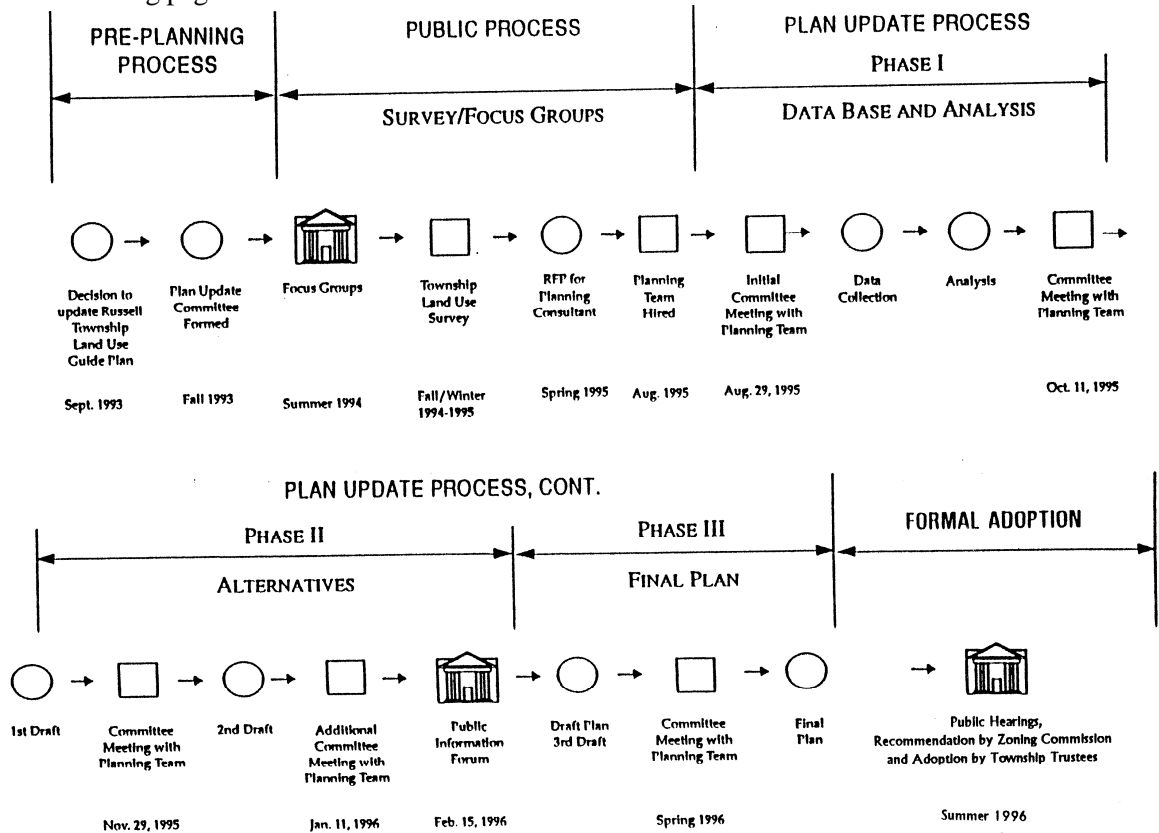


Figure 2.1: Russell Township Land Use Guide Plan Update Process Flowchart

B. Pre-Planning Process

The pre-planning process, initiated by the Township Trustees in the Fall of 1993, involved the following:

- Fall, 1993 Decision to update the *1975 Guide Plan* made by Township Trustees
- Fall, 1993 Land Use Guide Plan Update Committee formed
- Summer, 1994 The Strategy Team is hired to conduct the Public Process
- Spring, 1995 Search for planning consultant team begins
- Summer, 1995 Planning Consultant Team selected: UDA, land use designers and planners; Clarion Associates, Ohio legal counsel Thrasher, Dinsmore & Dolan, Geauga County Prosecutor David P. Joyce, legal consultants; ACRT, Inc., environmental consulting and planning; and Dr. Yoram Eckstein, 1986 water study update.

C. Public Opinion Process

Because a guide plan is meant to reflect the goals of the community, an important step was to determine the opinions of Township citizens with respect to land use and growth management issues. The public opinion process was conducted during the summer of 1994. It began with a series of focus group meetings which became the basis for a land use public opinion survey directed by the Strategy Team led by Dr. Karen C. Snyder, a professional public opinion researcher.

The most direct and comprehensive way to measure public opinion in the Township would be through the use of a public opinion survey. Before conducting the survey, however, a series of focus group meetings were held with selected Russell residents. (A detailed analysis of the data from these groups is reported in Appendix 5)³. This two step method ensured that both qualitative and quantitative methods were used to assess citizens' opinions regarding land use.

The survey was designed to answer the following and other questions:

- What are the residents' perceptions of the quality of life in Russell Township? With regard to the quality of life, what aspects of Township life do they value most? And how do they perceive that their quality of life might be affected in the future by different land use policies?
- What policies do they support or oppose with regard to different land use issues such as: residential density and development; commercial development; set-asides of land for parks, open spaces, trails and such; and city water and sewer systems?
- Why did citizens move to Russell Township in the first place? Why might they move away? How might land use policies affect their decisions?
- How do these land use policy preferences vary across demographic and geographic groups in the Township?

³ See *Summary of Focus Groups for Land Use Guide Plan Update* by Joanne Wanstreet, July 26, 1994.

1. Focus Groups

Six focus groups, representing a broad cross-section of Russell residents, were conducted from late May to early July, 1994. One objective of the focus groups was to uncover the issues that should appear on the public opinion survey of all Russell residents. Table I, below, lists the focus groups.

Table I

Grp.	Date	Theme	Participants
1.	May 24, 1994	Residents on Minor Roads	10
2.	May 25, 1994	Residents/Owners of Large Parcels	13
3.	June 7, 1994	Residents on Main Roads	11
4.	June 8, 1994	Residents of Developments	6
5.	June 15, 1994	Chagrin Heights	5
6.	July 7, 1994	Township Officials	9
		Total	54

(a) Summary of Focus Group Findings:

Focus group participants were most interested in discussing residential development issues, including density, lot size, sewers vs. septic systems and individual wells vs. public water. Commercial development and its restrictions were also discussed. Other survey topics raised by participants were: conservation areas, recreation, water quality, traffic, and tree protection.

In addition to determining issues for the public opinion survey, the focus groups also revealed important values held by current residents. The majority of focus group members supported a Land Use Guide Plan that preserves the current appearance of the Township. A minority - primarily owners of large acreage - supported changes in the Guide Plan to lessen development restrictions.

Another minority was concerned about pressures for commercial development, and suggested planning ahead to control such development.

(b) Focus Group Process Recommendations:

The conclusion of the Focus Group process was a list of consensus recommendations to the Land Use Guide Plan Committee:

- Survey 100% of Russell Township households.
- Employ the services of a professional, objective market research firm to conduct the survey.
- Capture in-depth background information on survey respondents.
- Keep the survey focused on values, on satisfaction with current housing/commercial/recreational offerings and on the top 7 survey topics identified in the focus groups.
- Allow for open-ended comments.

-
- Prepare for the survey by meeting with developers, either individually or as a group.
 - Study the land use guide plans of communities that were suggested as models for Russell.
 - Determine the mechanism by which the Plan will be adopted and communicate this process to the public.
 - Undertake an educational effort to inform the community about development options.
 - Seek professional assistance to plan for commercial regulation.
 - Understand the needs and concerns of owners of large land holdings.
 - Plan to update the Land Use Guide Plan more frequently.

2. Public Opinion Land Use Survey

Once the major issues and concerns of Russell Township residents had been ascertained through the focus group process, a public opinion survey questionnaire was created by The Strategy Team and distributed to over two thousand households in the Township.

(a) Survey Methodology

The methodology for the survey was as follows:

- **Population under study:** All adult residents of households located within the political boundaries of Russell Township.
- **Sampling approach:** Similar to the U. S. Census, the unit to be surveyed was the household.
- **Survey technique:** The questionnaire was mailed to every Russell household during November, 1994.

To help increase the response rate, Township officials placed articles about the survey in local newspapers which explained the purpose of the survey.

- **Administration of survey field work:** The mailing and computing of the questionnaires, designed by Dr. Snyder, was conducted by The Polimetries Laboratory for Political and Social Research in the Department of Political Science at The Ohio State University, under the supervision of Dr. Kathleen Carr, Senior Research Associate.
- **Response rate:** Of the 2071 questionnaires mailed, 139 were undeliverable and 781 were returned, yielding an excellent response rate of 40%.

(b) Survey Results

Demographic profile of respondents: The profile of questionnaire respondents approximates the demographic profile of all adults living in Russell Township. In general they are significantly older, better educated, have higher incomes, are more likely to be married, and more likely to own homes than Ohio residents at large.

The satisfied majority. The results of the analysis showed that there is a strong majority opinion in Russell Township with regard to land use issues. The majority of residents were not born in Russell but migrated to the Township primarily from the suburbs of Cuyahoga County. They came to Russell for its pastoral pleasures and to avoid congestion, pollution, crime, and traffic. Once in Russell Township, they found the lifestyle and environment they sought, and want to keep it.

- **Tenure.** The majority of residents plan to continue to live in Russell. Those who plan to move away within the next five years will do so because of "life passages," such as retirement. Others might leave because of a change in job or job status, or because of seeking more affordable housing or larger lots.
- **Quality of life.** The majority of residents feel that the quality of life in Russell is very good. The most highly rated attributes are those associated with the rural atmosphere.
- **Land use issues facing Russell.** The major concern was the possible loss of the rural landscape to development. They were also concerned about the capabilities of the land to provide the water and to support septic systems.
- **Status-quo land use policy preferences.** Residents prefer "status quo" policies with regard to the use of the land. They oppose residential development which deviates from three and five acre single family lots. Two considerations should dominate any future land use planning: the capabilities of the land and the desires of the majority of Russell Township residents.
- **Backing up positions with public investment.** Citizens are willing to approve a permanent or a temporary tax to purchase and maintain public open space that contributes to the rural environment. Even if it meant the loss of tax base, few would support increased residential density or additional commercial development.
- **Housing preferences.** Single family homes are the preference. Few want rental housing, such as townhouses or apartments.
- **Set-asides of parks, trails, recreational, open, and green spaces as a condition for development.** A majority prefers that land for parks and trails also be set aside by future private developers.
- **Commercial development.** Most preferred no more commercial development in the Township, but a minority would permit some limited commercial development. All residents

were in agreement that, if new commercial development should occur, both the type and location should be strictly regulated.

- **Water and septic systems.** The quantity of water is adequate and the condition of septic tanks is good in most households in Russell Township. A few areas, however, have problems.

Minority Opinions: There were minority opinions expressed by members of the following subgroups: older persons, those with lower incomes, those who had lived in Russell Township for more than 20 years, females, and those who live on major roads.

The most vocal minority. Some minority opinions were driven by financial issues. They felt that Russell had enough tax-exempt open space and would not support additional taxes to purchase and maintain more. They pointed out that some older residents have a difficult time supporting the typical Russell residence and need more housing options, such as retirement communities and condominiums. This minority group was more supportive of commercial development when it promised tax relief. Another minority, owners of large land parcels, preferred fewer restrictions on their right to develop their properties.

This survey has been adopted by the Township in its entirety as a part of this guide plan, and should be referred to for specific information.

D. The Plan Update Process

The final stage of the process was the actual updating of the Guide Plan. It was a collaborative effort with the Land Use Guide Plan Update Committee and the Consultants. The three phases of this process are described briefly below.

1. Phase I: Data Gathering and Analysis

During Phase I the consultants analyzed the information gathered during the Public Process, and gathered and analyzed new and existing 'hard' and 'soft' data.

Gathered was hard data such as the statistical information generated by the Township Land Use Survey, information from the National Census; reports and maps prepared by the Township and Geauga and Cuyahoga counties, Ohio Department of Transportation (ODOT), the Northeast Ohio Areawide Coordinating Agency (NOACA), U.S. Army Corps of Engineers, and the Greater Cleveland Regional Transit Authority (RTA). Hard data included: land use, topography, environment, transportation, demographics, economics/employment, zoning, historic resources, and proposed private and public development plans.

Soft data was gathered through interviews and focus group sessions with citizens and interest groups, which confirmed the results of the Public Opinion Survey.

At the conclusion of Phase I, "x-ray" drawings and memoranda were produced. The x-ray drawings focused on physical aspects of the Township such as: land use patterns, zoning, roads, streams,

topography, environmental features, etc. This analysis permits comparisons of land use patterns over time and helps to inform future land use decisions. (See Chapter VI)

The final step of Phase I was an updated list of Township 'Goals and Objectives' (see Chapter III) which provided a guide to Phase II.

2. Phase II: Plan Alternatives and Revisions

Phase II focused on updating obsolete data, revising Guide Plan chapters, and exploring alternative land use policies.

At the beginning of Phase II, the Consultant Team met with the Land Use Guide Plan Update Committee (November 29, 1995) to discuss the results of Phase I, and to set the direction for the preparation of alternative land use scenarios, as well as recommendations on legal mechanisms and the environmental component of the plan. A first draft of the updated chapters of the plan was prepared for review by the Land Use Guide Plan Update Committee. The planning team generated development *districts* to achieve the updated Township goals and objectives. A second draft of several key chapters was prepared and reviewed at a second meeting with the Committee on January 11, 1996.

Also during Phase II, ACRT prepared a report on environmental issues facing the Township. The results of this report are contained in Chapter V.

A Public Information Forum was held at the historic Town Hall (February 15, 1996). During the Forum the Land Use Guide Plan Update Committee and the Consultant Team presented the Guide Plan update process to residents. The Forum began with a slide presentation by the Consultant Team that outlined the public survey process, data analysis, x-ray drawings, goals and objectives, development districts, and the proposed land use map. After the presentation residents met in small discussion groups to ask questions and to offer suggestions. At the conclusion of the evening, representatives from each small group reported the results of their discussions to the reassembled large group.

3. Phase III: The Final Plan Update

Based on the feedback from Township residents at the Public Information Forum, and from Land Use Guide Plan Update Committee meetings, the Consultant Team produced the final draft of the updated plan. The draft was reviewed by the Land Use Guide Plan Update Committee. Final revisions were made to the updated plan which then was submitted to the Zoning Commission for review and recommendation and Township Trustees for adoption. The updated plan was officially adopted on October 2, 1996.

CHAPTER III:**GOALS AND OBJECTIVES -- SUMMARY OF PLAN INITIATIVES****A. Introduction**

To determine the goals and objectives for the Guide Plan, the Land Use Guide Plan Update Committee, Township officials, and Consultant Team adopted the following process:

1. Through focus groups, a public opinion survey, and meetings with the Land Use Guide Plan Update Committee, Township officials, and the Consultant Team, an initial set of goals was established.
2. Relevant physical and environmental data was analyzed for its impact on the goals.
3. Final goals were determined by a synthesis of the initial goals and the additional analyses.
4. Specific planning objectives were then developed by applying the goals to the current physical form of Russell and its types of development.

B. Goals

1. Continue the development of Russell Township as an environmentally based community, with on-site water supply and sewage treatment designed and installed to protect groundwater quality and quantity.
2. Protect and enhance the quality of the natural resources, including groundwater, wetlands, aquifer recharge areas, river corridors, surface water quality, woodlands, wildlife habitats, soils, and natural ecosystems. These resources are the basis for the biogeochemical systems and living ecosystems which provide waste assimilation, supply of drinking water, erosion and flood control, and food production. They are also the foundation for the unique and high quality natural beauty of the Township.
3. Maintain the character of Russell as a low-density residential community with ample open space and a distinct rural and natural character.
4. Provide limited personal services and retail sales facilities for the benefit and convenience of Russell residents, without expanding the commercial areas beyond their present physical boundaries.
5. Provide governmental services which are necessary for a rural township.

C. Objectives

1. Physical Form and Structure

- a. Provide the appropriate amounts of residential, commercial, and open space lands in the proper locations to meet the needs of the present and anticipated population of the Township.
- b. Establish development standards, models and guidelines designed to sustain and enhance the Township's environmental quality and to promote development that is rural, orderly, viable, and attractive.
- c. Create a system of interlocking open spaces and greenways which will utilize and protect the natural beauty of the Township and become a positive force in the shaping of Russell's physical form.
- d. Guide and regulate development to preserve and protect natural resources and ecosystems for the long term.

2. Open Space

- a. Provide natural open spaces as a method of protecting ecosystems, enhancing the attractiveness and healthfulness of residential areas, protecting areas of outstanding natural beauty, and directing the future form of development.
- b. Provide natural and open spaces to protect and preserve the natural environment including but not limited to aquifers, soils, wetlands, rivers, streams, flood control areas, wildlife habitats, meadows, forests, etc.
- c. Encourage and promote land stewardship by landowners in the Township through education and incentives for ecosystem and natural resource protection and enhancement.

3. Residential Development

- a. Encourage a distribution of residential development at densities consistent with the support capabilities of the land and protection of natural resources and ecosystems.
- b. Encourage residential development based on design models that promote the preservation of large areas of open space.
- c. Consider, in limited designated areas, "life-cycle" housing designed for a variety of family configurations.

4. Commercial/Public Facilities Development

- a. Promote the centering of public facilities at the intersection of Routes 87 and 306 and encourage open space rural design.
- b. Encourage open space rural design in office and commercially zoned areas.

5. Communication

- a. Strengthen effective communication among the general public and the legislative and planning bodies of the Township pertaining to matters of planning, zoning, and development.
- b. Establish a system for information exchange and activities coordination among the Geauga County Planning Commission, the regional planning agency of NOACA, and the local township zoning commissions of Geauga County.

6. Governmental Procedure

Consider and evaluate the need and desirability of Home Rule or other legislative means to enable Russell to have greater local control of its land development.

D. Land Use Recommendations

The future land use and growth management policy in Russell Township has been developed using a framework of *Districts*. The framework functions by dividing the Township into a number of Districts. Within each District several land uses and development patterns may be appropriate. **Development Districts**, as depicted on the Township District Map (see Chapter VIII), are areas in the Township that share certain physical and natural characteristics such as soil permeability and existing development patterns. The combination of natural and development characteristics are used to create the boundaries for the Districts. The characteristics of the District, in turn, determine the types of land uses that may be permitted within that District. The Guide Plan recommends that the Township be divided into seven Districts as follows:

- | | |
|--------------------------------------|--|
| - Rural Open Residential | (5-acre underlying zoning) |
| - Rural Residential | (3-acre underlying zoning) |
| - Crossroads Commercial and Services | (Commercial uses and services) |
| - Crossroads Office Building | (Office buildings) |
| - Active Park | |
| - Passive Park | |
| - Environmental Overlay | (Provides a range of environmental incentives, educational opportunities, and requirements in addition to the requirements of the underlying District) |

CHAPTER IV:

DEMOGRAPHIC TRENDS AND PROJECTIONS

A. Population

An evaluation of population trends and characteristics enables the Township to identify its existing population, and to predict future trends and needs. A township whose population is growing must be prepared to deal with the effects associated with that growth including:

- deterioration of air, water and soil quality
- strain on aquifers and natural areas
- increased housing demand
- increased open space, greenway, and park requirements
- increased demand for utilities and roads
- increased demand for commercial development
- higher demand for government services

1. General Growth Comparisons: 1970-1990

Russell Township is part of the Seven County (Cleveland Metropolitan) Region and is directly affected by population shifts and trends within the region. Geauga County, in which Russell Township is located, has been experiencing population growth over the past two decades, while both Cuyahoga County and the Region have been losing population. (See Table I)

Table I
REGIONAL POPULATION CHANGE

	1970-1980		1980-1990	
	% Change	Persons	% Change	Persons
Seven County Region	- 6.3	- 146,838	- 3.3	- 71,486
Gauga County	+ 18.3	+ 11,497	+ 8.9	+ 6,655
Cuyahoga County	- 12.9	- 222,435	- 5.8	- 86,260

Regional shifts in population are part of a continuing national trend where residents of large metropolitan regions leave the real and perceived problems of the built-up urban core for suburban and rural surroundings in the outlying areas. Within the Cleveland Region, the general movement has been out of Cuyahoga County into the surrounding counties. Russell Township and its immediate neighbors in Geauga County are located directly in the path of the easterly expansion of the Region and received much of the population movement that was taking place in the last 20 years.

TABLE II

Population Comparison Table:
Selected Northeast Ohio Counties and Communities

Jurisdiction	Census Count 1970	Census Count 1980	Census Count 1990	Population Change 1970-80:		Population Change 1980-90:	
				No.	%	No.	%
RUSSELL							
Russell Township	4,669	5,363	5,614	694	14.9	251	4.7
REGION							
Northeast Ohio 7-County Region	2,320,572	2,173,734	2,102,248	(146,838)	-6.3	(71,486)	-3.3
Geauga County	62,977	74,474	81,129	11,497	18.3	6,655	8.9
Cuyahoga County	1,720,835	1,498,400	1,412,140	(222,435)	-12.9	(86,260)	-5.8
Lake County	197,200	212,801	215,499	15,601	7.9	2,698	1.3
NEIGHBORING COMMUNITIES							
Auburn Township	1,587	2,351	3,298	764	48.1	947	40.3
Bainbridge Township	7,038	8,207	9,694	1,169	16.6	1,487	18.1
Chester Township	10,388	11,212	11,049	824	7.9	(163)	-1.5
Munson Township	3,569	5,222	5,775	1,653	46.3	553	10.6
Newbury Township	4,038	5,337	5,611	1,299	32.2	274	5.1
Hunting Valley Vlg., G.C.	124	153	151	29	23.4	(2)	-1.3
South Russell Village	2,673	2,784	3,402	111	4.2	618	22.2
Chagrin Falls Village	4,848	4,335	4,146	(513)	-10.6	(189)	-4.4
Hunting Valley Vlg., C.C.	673	633	648	(40)	-5.9	15	2.4

Source: U.S. Bureau of the Census, 1990 Population Counts.

Based on a table prepared by NOACA, January 1991. Negative numbers in parenthesis.

Technical Note: The 1990 Census was conducted for community boundaries as defined in December 1989.

Contains corrected population counts received March 1992.

Table II compares Russell Township's growth rate over the past two decades with the growth rates of the Seven County Region, the Counties of Geauga, Lake, and Cuyahoga, and the neighboring Townships and Municipalities of Auburn, Bainbridge, Chester, Munson, Newbury, South Russell, Chagrin Falls and Hunting Valley (both the Cuyahoga and Geauga County portions).

Interestingly, Table II reveals that Russell's growth rate during the last two decades has slowed and is below the growth rates of Geauga County and most of its neighboring townships - reversing a trend found in the 1950s and 60s during which Russell's growth was among the highest.

2. Russell Township's Growth to 1990

Since the 1940s, Russell's population growth has been characterized by both moderate and rapid population increases. The moderate growth periods took place during the 1940s, 1970s and 1980s. Rapid growth took place in the 1950s and 1960s.

With the end of the Depression and World War II, a regional as well as a national trend toward suburbanization began to take hold. The result was a moderate rate of growth for Russell Township and rapid growth for the inner suburbs surrounding Cleveland.

By the 1950s, this suburban trend continued, fueled by the post-World War II "Baby Boom" and a growing middle class. Coupled with the demand for suburban housing was the lack of available developable land within the Cleveland urban core and inner suburbs.

Russell Township experienced an explosive growth rate of 170% during the 1950s and a rapid growth rate of 38% in the 1960s. During the 1970s, however, the growth rate was 14.9% and for the 1980s it was just 4.7%.

This slowdown in growth in the 1970s and 1980s was the result of self-imposed growth management controls by the Township. These controls resulted from a land capability analysis which revealed the Township's ability to support various densities of land development. This program was introduced at the "grass roots" level by the residents and was implemented through the election and appointment of governmental officials who believed in controlled growth based upon comprehensive long-range planning and environmental stewardship.

B. Population Characteristics

The characteristics of the residents of Russell Township are important in understanding the needs, goals, and objectives of the Township. For example, a township with a high proportion of children and below average family income will require different governmental services than a township consisting mostly of affluent retirees with no children. The primary elements used to analyze the Township's population characteristics are age-sex distribution, occupation, and income. Other elements include education, minority population, length of residency, and persons per household.

1. Age-Sex Distribution

The diagram shown in Figure 1 - "Russell Township Population 1970 and 1990, by Age and Sex" shows the Township's age-sex distribution. Important characteristics and trends emerge from an analysis of this diagram:

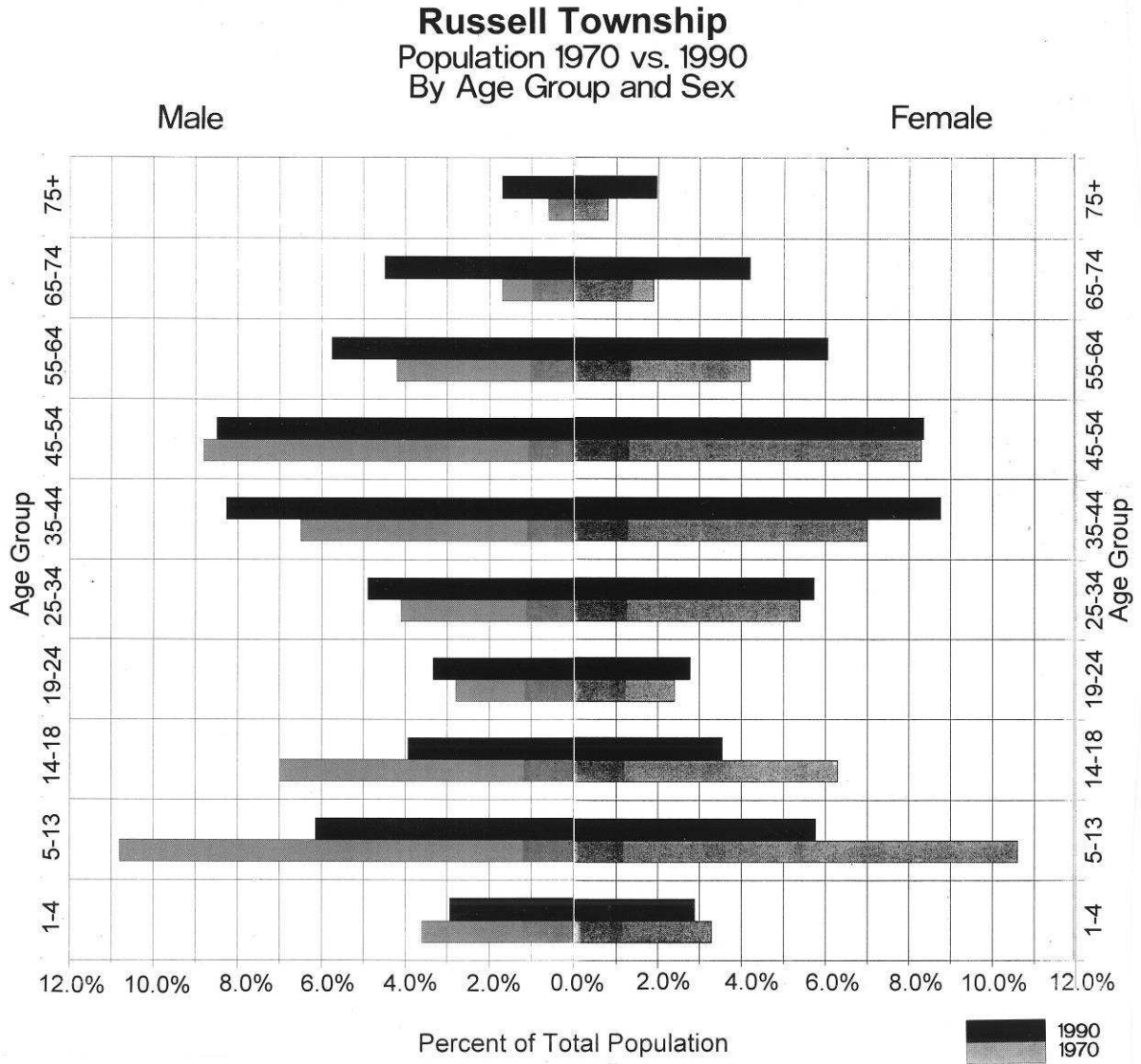
- There was a narrowing in the bottom of the diagram - that is,
 - a small decrease in the under 5, pre-school age group
 - a sizeable decrease in the 5-13, grade school age group from over 20% of the Township's population in 1970 (the largest segment at the time) to just below 12% in 1990
 - a sizeable decrease in the 14-18, high school age group from 13% in 1970 to under 8% in 1990.

- There was a widening of the middle of the diagram - that is,
 - modest increases in the 19-24 and 25-34 age groups
 - a noticeable increase in the 35-44 year age group from just under 14% in 1970 to 17% in 1990.

- There was a substantial widening in the top of the diagram - that is,
 - an increase in the over 55 age groups
 - a sizeable increase in the 65-74 age group which grew from under 4% in 1970 to close to 9% in 1990.

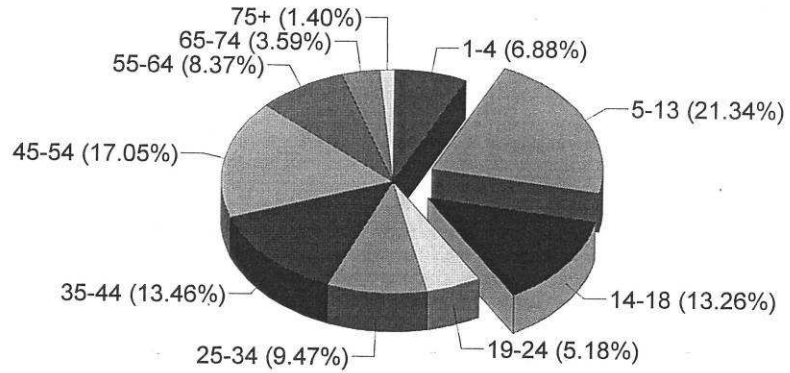
- Males vs. Females.
 - There are an almost equal number of males and females residing in the Township during both 1970 and 1990.

Figure 1 Age Sex Diagram - 1970/1990



Source: U.S. Census, 1990

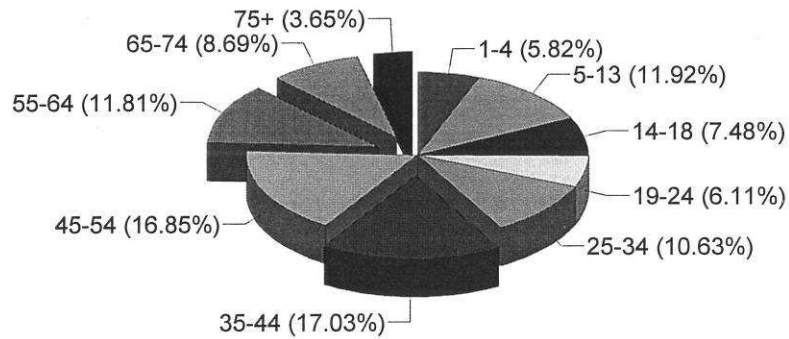
Russell Township
1970 Population by Age Group



Source: U.S. Census, 1990

Figure 2

Russell Township
1990 Population by Age Group



Source: U.S. Census, 1990

Figure 3

Figures 2 and 3 depict the Township's 1970 and 1990 populations by age group. Examination of the pie charts reveals the following:

- Whereas one of the largest segments of the population in 1970 was school age children 5-13 (21.3%) and 14-18 (13.3%), by 1990 these groups had dropped to 11.9% and 7.5% respectively.
- The 45-54 age group had remained relatively stable in the 20 year period, whereas, the groups on either side - the 35-44 year olds, and the 55-64 year olds have grown significantly. Altogether these groups, which span the peak earning years from ages 35 to 64, made up 45.7% of the population in 1990.
- The number of seniors has increased substantially. The over 65 age groups accounted for 5% of the population in 1970 and 12.3% in 1990.

Conclusions:

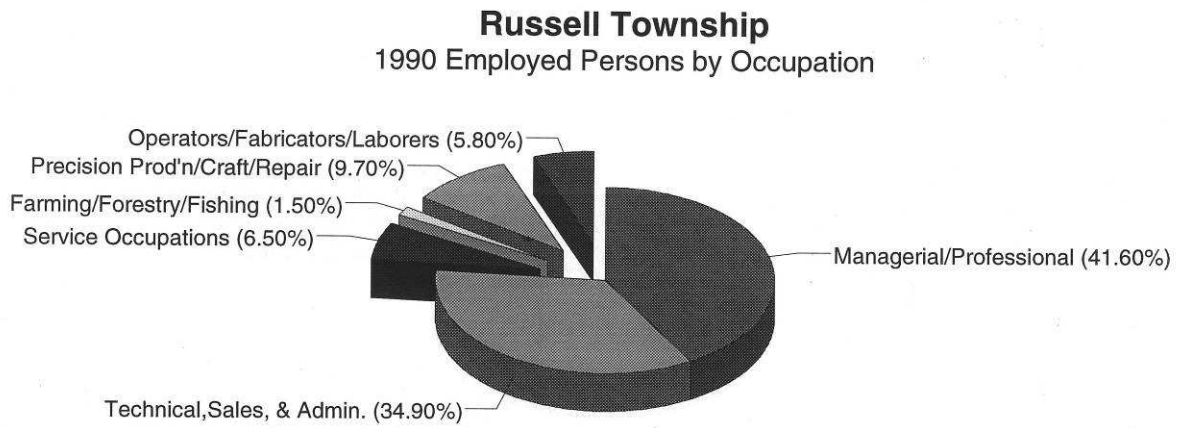
The analysis of the Township's 1970 and 1990 population reveals that the Township's population is maturing. In particular the following trends and issues are important for planning purposes:

- There are fewer school age children than in the 1970s and therefore less demand for school district services.
- There has been some loss of young families with children.
- The Township is made up of a stable aging population. A large segment is in its most productive earning years which translates to a stable tax base.
- Many residents are remaining in Russell as they grow older which could result in an increasing demand for different kinds of housing, for example, life-cycle housing and seniors housing.
- These factors point to population stability and maturity and the ability to meet the financial needs of government.

2. Occupational Distribution

Russell Township attracts a high proportion of residents who hold decision-making positions in their occupations. See Table III and Figure 4.

TABLE III		
Russell Township		
1990 Employed Civilian Labor Force		
16 Years Old and Over - By Occupation		
Occupation Type	No. of Employed People	% of Labor Force
Managerial & professional specialty occupations:		
Executive, administrative, & managerial	625	21.1
Professional specialty	607	20.5
Technical, sales & administrative support:		
Technicians & related support	72	2.4
Sales	494	16.7
Administrative support, including clerical	468	15.8
Service occupations:		
Private household	28	1.0
Protective service	38	1.3
Service, except protective and household	129	4.3
Farming, forestry, & fishing occupations	44	1.5
Precision production, craft, & repair occupations	286	9.6
Operators, fabricators, & laborers:		
Machine operators, assemblers & inspectors	114	3.8
Transportation & material moving occupations	45	1.5
Handlers, equipment cleaners, helpers, & laborers	14	0.5
Total	2964	100.00
Total Labor Force: 3,038		
Unemployed: 74		
% Unemployed: 2.4%		
<i>Source: U.S. Census, 1990.</i>		



Source: U.S. Census, 1990

Figure 4

An examination of Table III and Figure 4 reveals:

- Over 97% of Russell's total labor force was employed in 1990 (2.5% above the Geauga County average).
- The largest segments are in the managerial/professional occupations (41.6%), technical, sales & administrative support (34.9%) and precision production (9.6%).
- Over one-half of the labor force is female, indicating a significant number of households with two incomes. The result is a substantially increased level of purchasing power.

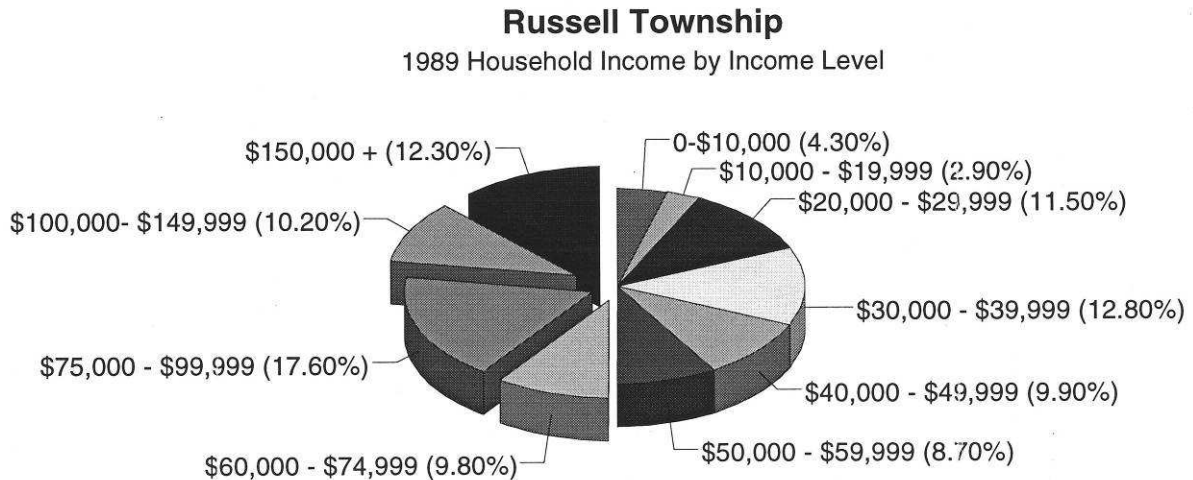
3. Income Distribution

Russell Township residents have a higher than average household income level. See Figure 5, Table IV and Table V.

Table IV
Russell Township
1990 Income Census: Household Income in 1989

Median ⁴ Income:	\$ 59,881
Mean ⁵ Income :	\$ 81,146
Mean Income < \$150,000:	\$ 57,297
Mean Income > \$150,000:	\$251,095

- Median household income in Russell is \$59,881 compared to a median household income in Geauga County of \$41,113.
- Few households (7.2%) make less than \$20,000 per year.
- 144 people, or 2.6% of the Township's population, are below the poverty level compared to 5.6% of the residents of Geauga County, and 7.4% of the residents of Cuyahoga County.
- Almost half of the households have incomes in excess of \$60,000.



Source: U.S. Census, 1990

Figure 5

⁴ The *median* is the middle value in a distribution, above and below which lie an equal number of values.

⁵ The arithmetic *mean* is a number that typifies a set of numbers of which it is a part. The mean is derived by dividing the sum of the values in the set by the number of entries in the set.

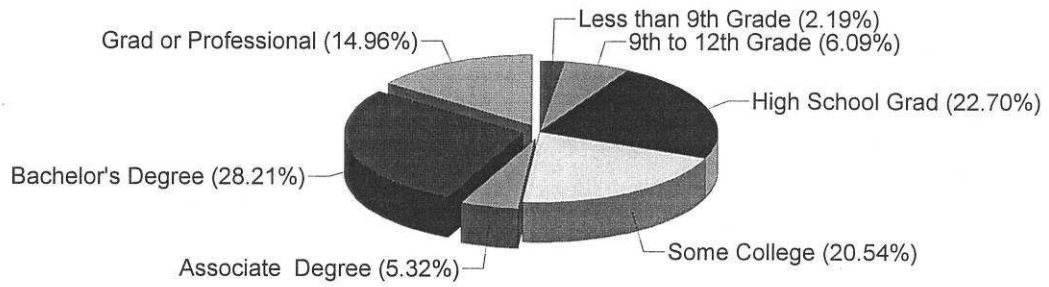
TABLE V
Per Capita Income Comparisons (in Dollars)
Selected Northeast Ohio Counties and Communities

	1969	1979	1989
RUSSELL			
Russell Township	\$ 4,864	\$ 12,880	\$ 28,683
REGION			
Northeast Ohio 7-County Region	3,582	8,010	14,787
Cuyahoga County (C. C.)	3,692	8,098	14,912
Geauga County (G. C.)	3,517	8,770	17,387
Lake County	3,463	8,239	15,465
NEIGHBORING COMMUNITIES			
Auburn Township	3,906	8,390	18,583
Bainbridge Township	4,076	10,790	21,999
Chester Township	3,801	9,964	20,366
Munson Township	3,459	8,068	18,515
Newbury Township	3,237	8,079	17,582
Hunting Valley Village, G.C.	5,088	36,802	58,651
South Russell Village	5,153	15,377	28,569
Chagrin Falls Village	5,135	11,626	26,235
Hunting Valley Village, C.C.	10,956	33,508	61,270

Source: U.S. Census, 1990

4. Educational Attainment

Russell Township 1990
Educational Attainment - 18 yrs & over

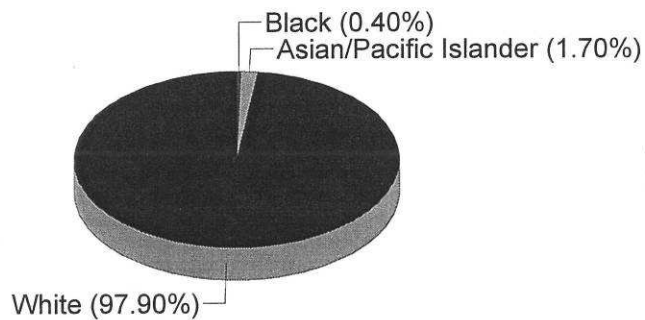


Source: U.S. Census, 1990

Figure 6

5. Minority Population

Russell Township
1990 Minority Population



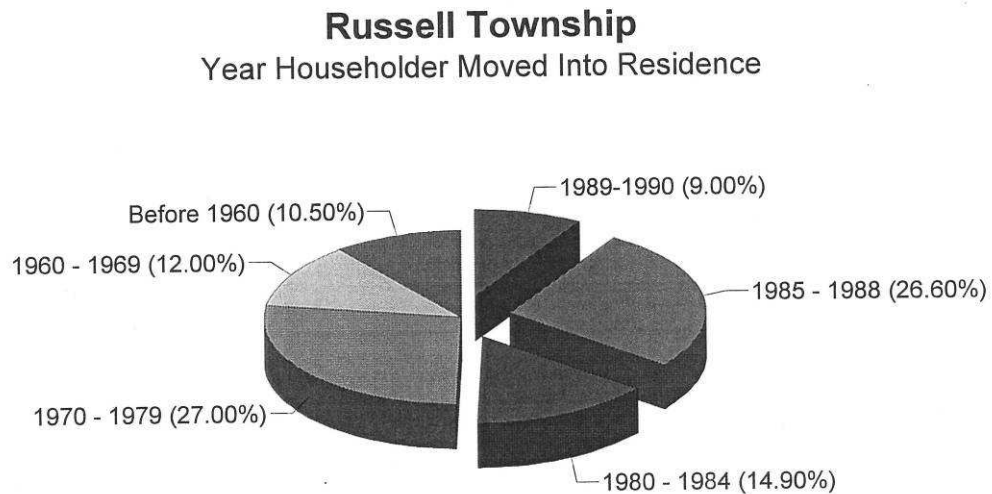
Source: U.S. Census, 1990

Figure 7

6. Length of Residency, 1990

Figure 8 shows length of residency in 1990 measured by the year householders moved into their residences. Length of residency figures provide some insight into the character of the Township. Longer term residents often have different views regarding land use issues than new residents. Examination of this diagram reveals:

- There is a large segment of the population who have lived in the same home for more than 20 years. 27% moved into their residences between 1970-79. (The 1994 Public Land Use Survey revealed that the average number of years that respondents have lived in Russell is 18).⁶
- There is also a large segment of newer residents (and a few long time residents who have moved to a new home in Russell) with 27% moving in to their residences between 1985 and 1988.



Source: U.S. Census, 1990

Figure 8

⁶ Russell Township 1994 Land Use Survey, The Strategy Team, Columbus, Ohio 1995.

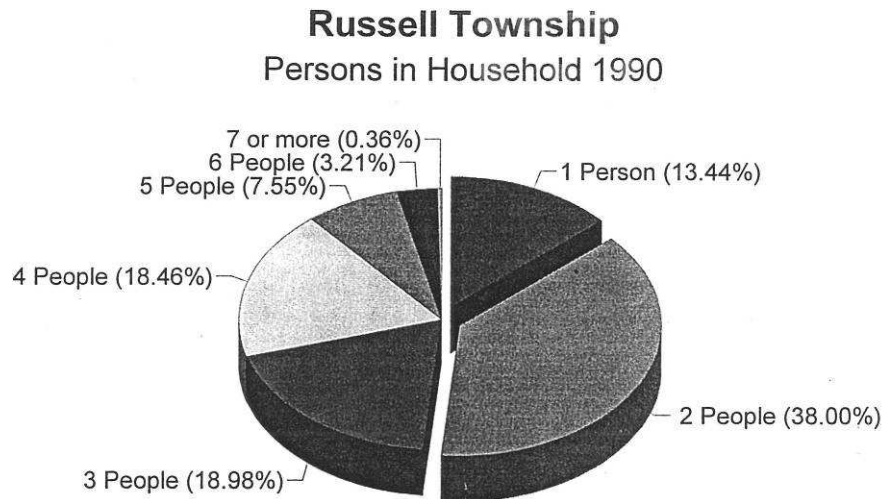
7. Persons per Household

National Trends:

- Over the past two decades, the national trend has been a decrease in the size of the average household - from 3.3 persons in 1960 to 2.6 in 1990 and the trend is expected to decline further to 2.3 by the year 2000.⁷

Russell Trends:

- The size of Russell Township households also has been declining. In 1970 the majority (52%) of the 1,281 occupied housing units in the Township had four or more persons per household. In 1990 this had declined to under 30%. See Figure 9.
- In 1990 over 51.4% of the Township's 1,977 housing units (1,860 owner occupied and 117 rental) had two people or one person per household.
- The size of Russell households has been declining due to an increase in the number of "empty nesters" (older couples whose children have moved away) as well as an increase in single person households. This trend suggests that there will be an increased demand for forms of housing other than homes designed for families with children.



Source: U.S. Census, 1990

Figure 9

⁷ *Guiding Growth*, Pennsylvania Environmental Council, Third Edition, September 1993.

C. Population Projection to 2015

For planning purposes it is important to predict future population growth since the size of the population directly impacts the level of services that the Township government must provide.

The primary sources of population increase are births and migration, both of which have slowed in Russell since 1970.

An examination of the census data, along with information supplied by the Geauga County Planning Commission, reveals that Russell Township experienced a slowing of its growth rate during the 1970s and 80s:

- During the 1970s the population increased by 694 - a growth rate of 14.9%.
- During the 1980s the population increased by 251 - a growth rate of 4.7%.

One of the most common methods of determining how the Township's population will change in the future is to estimate the number of houses likely to be constructed and to multiply this by the number of persons per household. The Township has used two methods in its population predictions analysis. The first method involves multiplying projected building starts (based on past trends) by the number of persons per household (based on current standards). The second method uses the Township District Map to predict the maximum number of houses per District multiplied by number of persons per household (based on current standards).⁸

1. Population Projection Method #1

The 1975 Guide Plan predicted that both household size and population would increase in the future. In fact, the number of persons-per-household in Russell declined between 1970 and 1990, resulting in a much smaller population increase than predicted. In 1970 there was an average of 3.64 persons per Russell household and the 1975 Guide Plan predicted that this would "level off at 3.81 persons-per-household" by 1985. In fact, national figures show that the average household size was 2.6 persons in 1990 and will continue to decline to 2.3 persons by the year 2000. The estimate for 1995 Russell Township household size, based on the Township Land Use Survey, is 2.7.

Table VI clearly shows that population projections are only as accurate as the assumptions on which they are based. In 1974 it was assumed that the average household size would increase to 3.81 persons per household and that housing starts would continue at previous levels. Although the number of households increased as expected, the error in estimated household size led to population projections for 1990 that were double the actual 1990 population. The 1970 Census population figures for Russell Township erroneously included the population of South Russell Village. This error was corrected at the

⁸ The methodology presented in these population predictions has used "scientific" means that we consider to have resulted in reasonable assumptions and projections. There are certain risks involved with projections for small geographic areas due to the possibility of the variables analyzed being more susceptible to greater fluctuation due to local circumstances. In addition, as the time span for the projections increases the accuracy generally decreases. These assumptions and their projections have been tested against the State and Federal standards whenever possible. The readers and users of this Comprehensive Guide Plan should use these projections as they are presented i.e., reasonable estimates not statements of fact.

time of the 1990 Census. Table VI is taken verbatim from the *1975 Land Use Guide Plan*. Table VII uses the corrected population figures for Russell Township.

<u>Year</u>	<u>No. of Dwelling Units</u>	<u>Persons/Household</u>	<u>Population</u>
1970	1,283	3.64	4,669*
1975	1,426	3.71	5,291
1980	1,631	3.78	6,165
1985	1,881	3.81	7,167
1990	2,171	3.81	8,272
1995	2,371	3.81	9,034

* *SOURCE: 1970 United States Census - First Count*

Table VII uses the same technique as that used in Table VI. It begins with accurate figures for 1990 for both number of dwelling units and persons per household, and makes predictions about how these will change over time in order to estimate future population figures.

The analysis assumes that the number of residential building starts will continue at the same rate as they did in the late 1980s and 90s -- approximately 17 building units per year -- while household size will continue to decline in accordance with national trends and predictions for rural suburban areas to 2.5 by the year 2000, and levelling off at 2.4 after that.

Based on this analysis, despite the number of dwelling units increasing steadily over time, the overall population of the Township will actually decrease in the short term before levelling off by the year 2015.

**Table VII
Russell Township
Population Projections - 1995**

<u>Year</u>	<u>No. of Dwelling Units</u>	<u>Persons/Household</u>	<u>Population</u>
1990	1,977*	2.8	5,614*
1995	2,075	2.7	5,602
2000	2,160	2.5	5,400
2005	2,245	2.4	5,388
2010	2,330	2.4	5,592
2015	2,415	2.4	5,796

* SOURCE: 1990 United States Census

2. Population Projection Method #2

The second method of projecting future population involves analyzing the Township's land use and zoning in order to calculate the maximum number of residential parcels that can be developed. The number of potential developable residential lots multiplied by average household size will then yield an estimated population figure. This analysis examined all properties, 10 acres or larger, in the existing 5-acre and 3-acre residential zones. It then uses three different average household size figures, 2.7, 2.5, and 2.4 persons per household, to provide a range of possible future population growth.

(a) 5-Acre Zone:

No. of Parcels:	21 parcels, 10 acres or more (excluding West Woods Park - approximately 650 acres)
Total Acres:	1800
Lots:	339 (1800 ac / 5 ac = 360 lots. Assume the 21 original parcels will keep 5 acres with an existing house - leaving 339 (360 - 21) potential building lots or residential units.)

339 units x 2.7 pers/unit = 915 persons
339 units x 2.5 pers/unit = 847 persons
339 units x 2.4 pers/unit = 814 persons

(b) 3-Acre Zone:

No. of Parcels: 27 Parcels, 10 acres or more

Total Acres: 2,600

Lots: 852 (2,600 ac / 3 ac = 879 lots. Assume the 27 parcels will keep 3 acres with an existing house - leaving 852 (879 - 27) potential building lots or residential units.)

852 units x 2.7 pers/unit = 2,300 persons
852 units x 2.5 pers/unit = 2,130 persons
852 units x 2.4 pers/unit = 2,045 persons

(c) Combined 5-acre and 3-acre zone Population Projections

@ 2.7 persons/unit: 915 + 2,300 = 3,215 persons
@ 2.5 persons/unit: 847 + 2,130 = 2,977 persons
@ 2.4 persons/unit: 814 + 2,045 = 2,859 persons

Using this second method of population prediction results in the potential addition of from 2,859 people at the low end to 3,215 people at the high end. When added to the 1990 population base of 5,614 this results in a future population of between 8,473 and 8,829.

There is no time factor attached to this projection method - it is based on the assumption that all of the lots 10 acres or greater in residential districts will eventually be subdivided into their permitted minimum lot sizes. While it is highly unlikely that all of these lots will ever be subdivided in this way, this is nonetheless a useful exercise in that it provides a picture of what is possible under current zoning.

CHAPTER V:**ENVIRONMENTAL INFRASTRUCTURE****A. Introduction**

The vast majority of Township residents surveyed in 1994 rated environmental infrastructure as the most important factor to consider when updating the *1975 Russell Land Use Guide Plan*. Their environmental concerns were focused on two areas: first, the preservation of the valuable woodlands, rivers, streams, wetlands, and natural habitats of the Township; and second, the carrying capacity of the ground and water resources to support and sustain additional residential development.

These concerns date back to the 1970s when the citizens and Trustees of Russell Township drew up the first *Land Use Guide Plan*, a pioneering document. It was a generation ahead of its time in linking development feasibility to the full range of environmental issues. “Sustainable development,” a current popular term for the environmental thrust in township and municipal planning practice, is the kind of planning the *1975 Land Use Guide Plan* articulated.

Residents saw what was occurring in other rural townships where unplanned growth was permitted without regard to the carrying capacity of the environment. Wells went dry, septic fields failed, storm water runoff caused flooding and erosion, and increased traffic caused congestion and air pollution. Furthermore, the cutting of the woodlands and the draining of wetlands destroyed the rural character and reduced the natural habitats for indigenous wildlife. These issues continue to be a major concern of the present day citizens and Trustees of Russell Township.

This chapter will summarize the environmental findings of the *1975 Land Use Guide Plan*, the 1986 ground water study by Dr. Yoram Eckstein of Kent State University, and the 1996 environmental study conducted by ACRT, Inc., an environmental consultant to the Township. The detailed environmental reports from 1986 and 1996 have been adopted by the Township in their entirety, incorporated into this guide plan, and should be referred to for specific information.

B. The 1975 Land Use Guide Plan Environmental Infrastructure

Environmental studies were conducted in 1975 to determine the natural carrying capacity of the land in Russell Township. Studies included water table depth and capacity, aquifer locations, bedrock geology, soil types, soil drainage properties, surface runoff patterns, and wetland locations. These studies gave a scientific basis for determining residential lot sizes throughout the Township.

The studies revealed that Russell Township is underlaid by a massive bedrock formation. The subsoil above the bedrock consists of four soil types of varying carrying capacities. Water table depth and flow varied in different parts of the Township.

The 1975 environmental studies were summarized in Chapter IV of the *1975 Russell Township Land Use Guide Plan*:

The environmental infrastructure of the Township reveals that Russell is uniquely formed to provide for the creation and establishment of an open space, low density, residential community. Its basic geologic formation of coarse and fine sandstones and shales provides distinct landforms capable of supporting only specific low density forms of development.

The sandstone and sand/gravel formations provide the best ground water supplies; however, if the land is overdeveloped these water supplies will be greatly depleted. The shale formations have little or no potential for water supply; therefore, land development densities here must be very low.

The soil formations forming the over-burden of these bedrock formations vary from lean clays to sand-silt mixtures to gravel and sand. The first two of these formations have limited capabilities for the development of on-site waste water treatment on small lots; however, when lot size is increased to a minimum of 3 acres, the problem is eliminated through proper design of an on-site treatment system.

In the latter case of coarse-grain soils, gravel and sand, the treatment of on-site waste water results in little or no problem. However, these areas are generally within ground water recharge areas which are essential to a continued water supply. Because of the rapid movement of water through soils of this type, it is essential that the low density be maintained so that pollution of the underground aquifers does not occur.

Furthermore, Russell has numerous small streams and two major streams: Griswold and Silver Creek. There are also extensive wetlands in the Township, specifically the swamp across from Red Raider Camp, south of Route 87, Kinsman Road.

To ensure that these areas remain for the control of storm water run-off and the control of flooding, it is essential that land development does not interrupt these natural areas. It is also essential that these areas be protected from development so that they will not be polluted. Low density land development is the best means of achieving this. As a result of these considerations, land use districts based upon 3- and 5-acre zones were recommended.

C. 1986 Ground Water Study by Dr. Yoram Eckstein: Kent State University

In July 1985, the Russell Township Zoning Commission retained Dr. Yoram Eckstein, Kent State University Professor of Hydrogeology, to study the water resources of the Township in two areas of enquiry:

1. What is the minimum residential lot size in various sections of the Township which will allow adequate well water supply without adversely affecting ground water for adjacent lots?

-
2. What is the minimum residential lot size in various sections of the Township which will accommodate individual septic systems and still protect the quality of the ground water resources?

Dr. Eckstein concluded that the Township should implement groundwater management practices by limiting residential lot sizes to a minimum of two to five acres, depending on location in the Township. Groundwater in Russell Township is particularly susceptible to contamination because of the proximity of the groundwater table to the surface and the relative absence of intermediate low permeability layers, such as clay and shale, which normally provide protection to the aquifer from surface contamination. The Township currently has in place provision for two residential zoning districts, one with a three-acre minimum lot size and one with a five-acre minimum lot size. Studies in 1975 and 1986 support the need for minimum lot sizes to protect groundwater availability and quality. The 1986 study and report has been adopted by the Township in its entirety, incorporated as a part of this guide plan, and should be referred to for specific information.

As a part of the land use guide plan update process Dr. Eckstein was asked to review his findings for the *1995 Land Use Guide Plan*. He stated in December 1995 that the conclusions of the 1986 study remain valid. He further stated that "clustering" residential development and thereby providing larger amounts of connected open space would not have an adverse effect on the groundwater so long as the overall density of three to five acres per dwelling unit is not exceeded.

D. 1996 ACRT, Inc. Review and Evaluation of Environmental Data

The environmental consulting firm of ACRT, Inc., Cuyahoga Falls, Ohio, was commissioned to review and evaluate the existing environmental data. The report is a secondary source analysis of the environmental overlay data. The report also provides recommendations for zoning regulations and protection regulations that preserve or manage the environmental resources. Below are excerpts and condensations of the 51 page report, dated January 1996. This report has been adopted by the Township in its entirety, incorporated as a part of this guide plan, and should be referred to for specific information. The following discussion is a summary of the complete ACRT Report.

1. Executive Summary and Conclusions

Many of the provisions for protecting the ecosystem components of the Township—groundwater, surface water, floodplains, wetlands, vegetated buffer zones, tree canopy/vegetation, and wildlife habitat—have considerable overlap. The benefits derived from any single protective measure are likely to be a positive influence on the other ecosystem components. Accordingly, some of the recommended protective measures will have a broader influence than others. While each recommendation presented is essential to achieve specific natural resource protection goals, it may be more realistic for the Township to focus on the adoption of the more comprehensive and influential protective measures as it begins to address environmental issues.

The ACRT report reviews data and makes recommendations for the following ecosystem components:

- Groundwater
- Surface water
- Vegetated buffer zones
- Floodplains
- Wetlands
- Tree canopy/vegetation
- Wildlife habitat

The more comprehensive protective measures include: a **community education program**; the enactment of **vegetated buffer zone protection regulation**; provisions to protect open space (**cluster development**; **tree preservation regulation**); and the initiation of a more **stringent site design review process** that strongly considers the ecology of a site.

A highly effective way to protect the quality of the Township's natural resources is to create a **natural resource overlay district** that protects the community's most important environmental values. An overlay district applies a common set of regulations and standards to a designated area that may overlap with one or more conventional zoning districts. The overlay regulations must apply above and beyond those set for that zoning district. For example, the Township could create a natural resource overlay district that encompasses significant riparian corridors, wetlands, and wildlife corridors. To construct an effective overlay district, an evaluation of the extent and variety of the natural resources is necessary.

Russell Township will benefit immensely by the incorporation of environmental data into its land use planning objectives (see Chapter III). The consideration of environmental data will promote optimal land use, thereby protecting public health, safety, and morals. Consideration of environmental data will also add aesthetic value to the community. Although more difficult to quantify, aesthetic rewards are of great value to the community, and no doubt contribute to Russell Township's sense of place. This sense of place makes Russell Township a pleasant community that attracts and retains citizens who share a common appreciation for its rural and scenic character, and who are willing to contribute to its preservation.

Russell Township and other progressive communities are beginning to forge the outlines of a new era, marked by greater emphasis on local environmental action. This trend will clearly affect land use decisions and environmental quality. For example, advanced planning for ecologically cohesive areas (such as watersheds) promises to become a standard practice. This long-term scientifically based planning will facilitate the integration of environmental protection programs into the land use plans of these communities.

2. Groundwater

The protection of drinking water quality and quantity is a significant environmental value. The shallow groundwater table and the bedrock geology make the groundwater resources of Russell

Township, which originate 90% from one aquifer, vulnerable to surface contamination. Groundwater is also limited in supply, which requires certain minimum lot sizes to ensure availability. Recommended protective measures include:

- a. Community education
- b. Pollution source inventory
- c. Underground storage tank management program
- d. Public education to reduce water use during drought
- e. Groundwater recharge by limiting impervious surfaces and encouraging the occurrence of
runon

3. Surface Water

The health of an aquatic ecosystem is a strong indicator of a watershed's ecological quality. The Chagrin River and its three Russell Township tributaries (Griswold Creek, Silver Creek, and McFarland Creek) have excellent water quality, but are vulnerable to upstream pollution beyond the Township boundaries and to contamination within the Township. (See Figure 1.)

Sanitary wastes are a prime source of pollution in streams. Point sources of pollution, such as centralized sewage treatment facilities and industrial discharges are regulated by state and federal Clean Water Acts.

However, non-point sources of pollution, such as septic systems, landfill leachates, road salt, and eroded silt are more difficult to identify or regulate. The best way to reduce non-point pollution is to educate citizens about proper management practices. Surface water protection recommendations include:

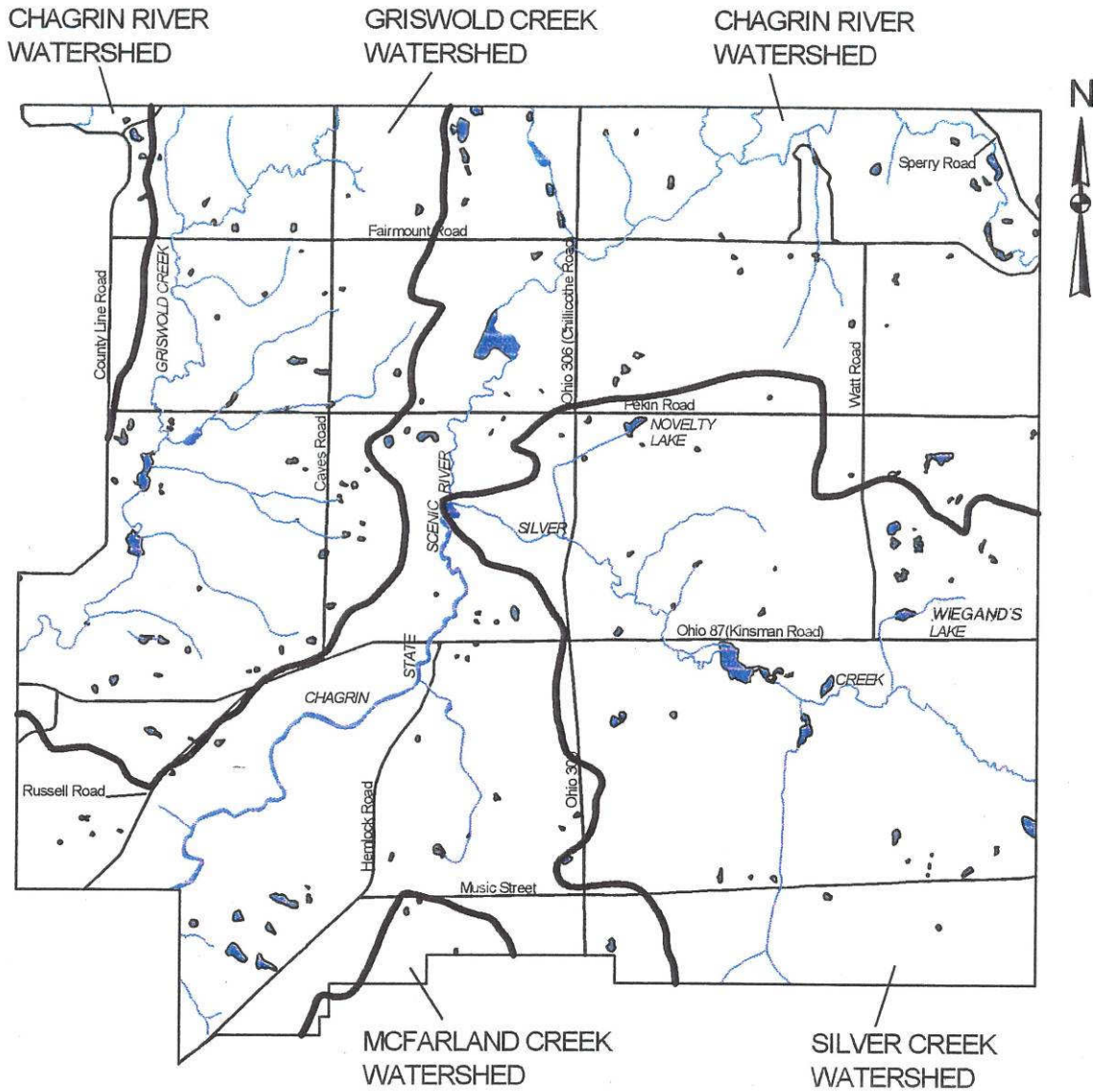
- a. Community education
- b. Septic tank system maintenance education program
- c. Stormwater pollution protection
- d. Winter snow management
- e. Limitations on new development
- f. Limitations on construction of impervious surfaces
- g. Protection of riparian (river) corridors
- h. Township water quality protection regulations

4. Vegetated Buffer Zones

Vegetated buffer zones adjacent to rivers, lakes, and wetlands offer significant protection of water quality by serving as biological filters for water-borne pollutants from surface water runoff. ACRT analyzed the river corridor buffer zones in the Township. Of the 36 miles of rivers and streams in Russell Township, 83% are forested riparian corridors. Additional study is needed for the 17% which is non-forested to determine if some level of scrub-shrub vegetation exists or if it is primarily landscaped lawn (which offers the least protection of water quality). Non-point source pollution and erosion can be reduced by maintaining adequate vegetative cover of the appropriate species. Figure 2 shows the forest canopy cover and major rivers and streams.

Figure 1. Surface Watersheds of Russell Township

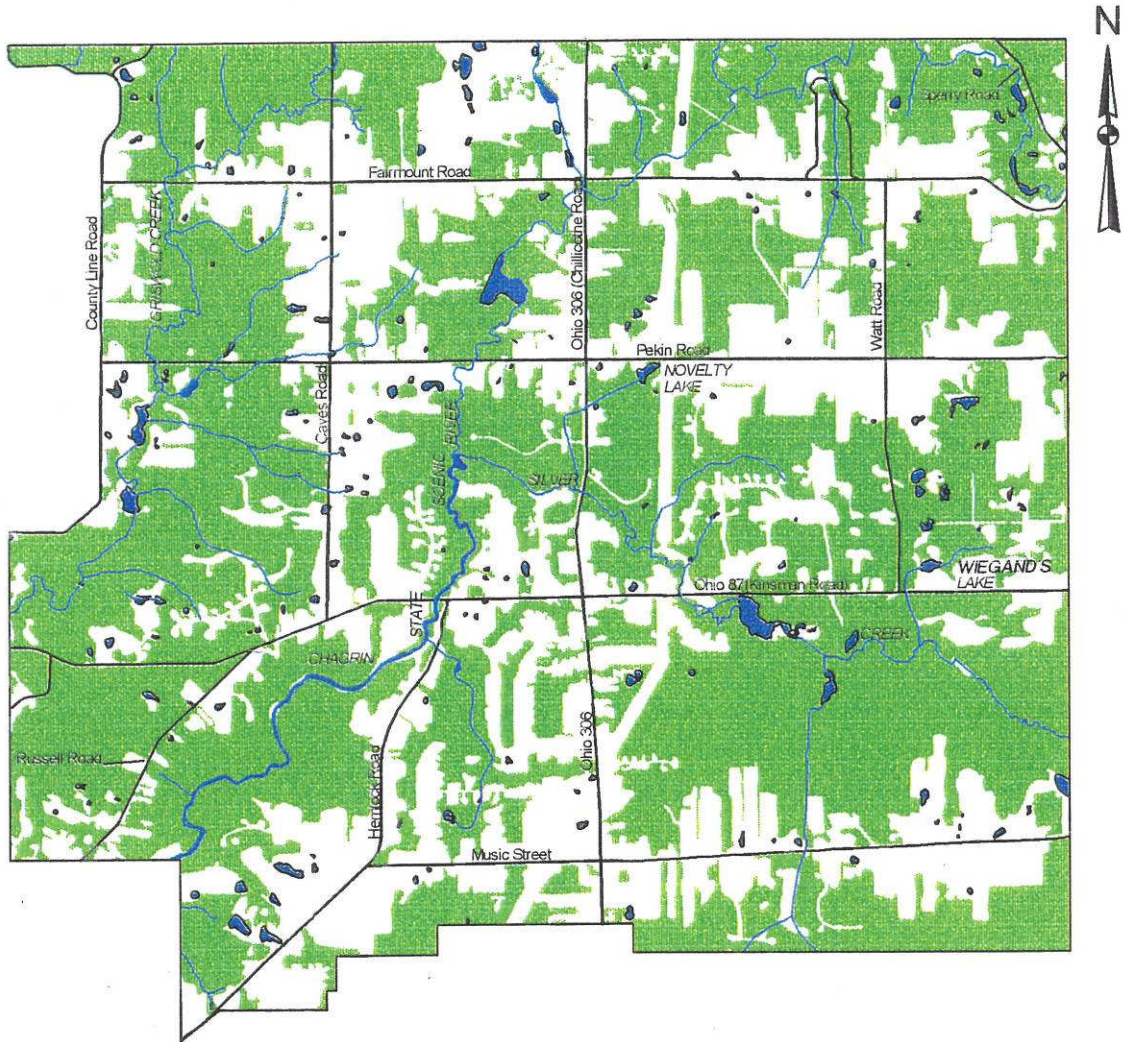
Source: ACRT, 1995



ACRT, Inc Environmental Specialists	
Legend	
Streams and Rivers 	Open Water
Roads 	Watershed Boundary

Figure 2. Forested Areas

Source: ACRT, 1995



In addition to the filtering function of vegetated buffer zones, they also reduce streambank erosion, provide food and habitat for wildlife, enhance property values, and provide a framework for future conservation corridors and trail greenways.

The Township should consider adopting Vegetated Buffer Zone Protection regulations, which would be based on an analysis of actual conditions and the goals of the Township. Standards and regulations also must be scientifically based. The regulations should have flexible-width buffer zones to take into account the variety of site conditions which are present in the Township. An official Vegetated Buffer Zone Protection Map should be prepared which is available for public view and use.

5. Floodplains

The 50 and 100 year floodplains in Russell Township have been delineated by the Federal Emergency Management Agency (FEMA). To build within flood zones in Geauga County, a floodplain permit must be secured from the County Planning Commission. Septic systems are not permitted within the 100 year floodplain. Floodplains are important breeding grounds for amphibians, fish, and reptiles. Floodplain wetlands also absorb water during high flows, reduce local flooding, and delay the release of water downstream.

The Township should review its floodplains and consider adopting additional regulations to improve aquifer recharge, reduce flooding and erosion, and protect natural habitat.

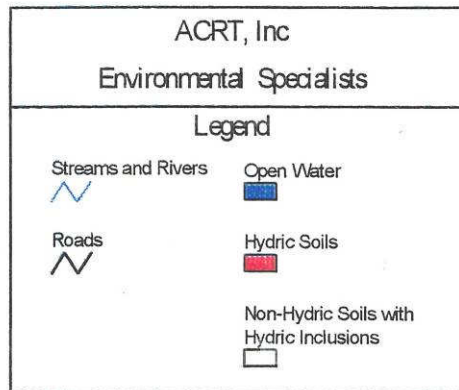
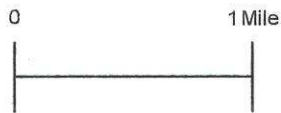
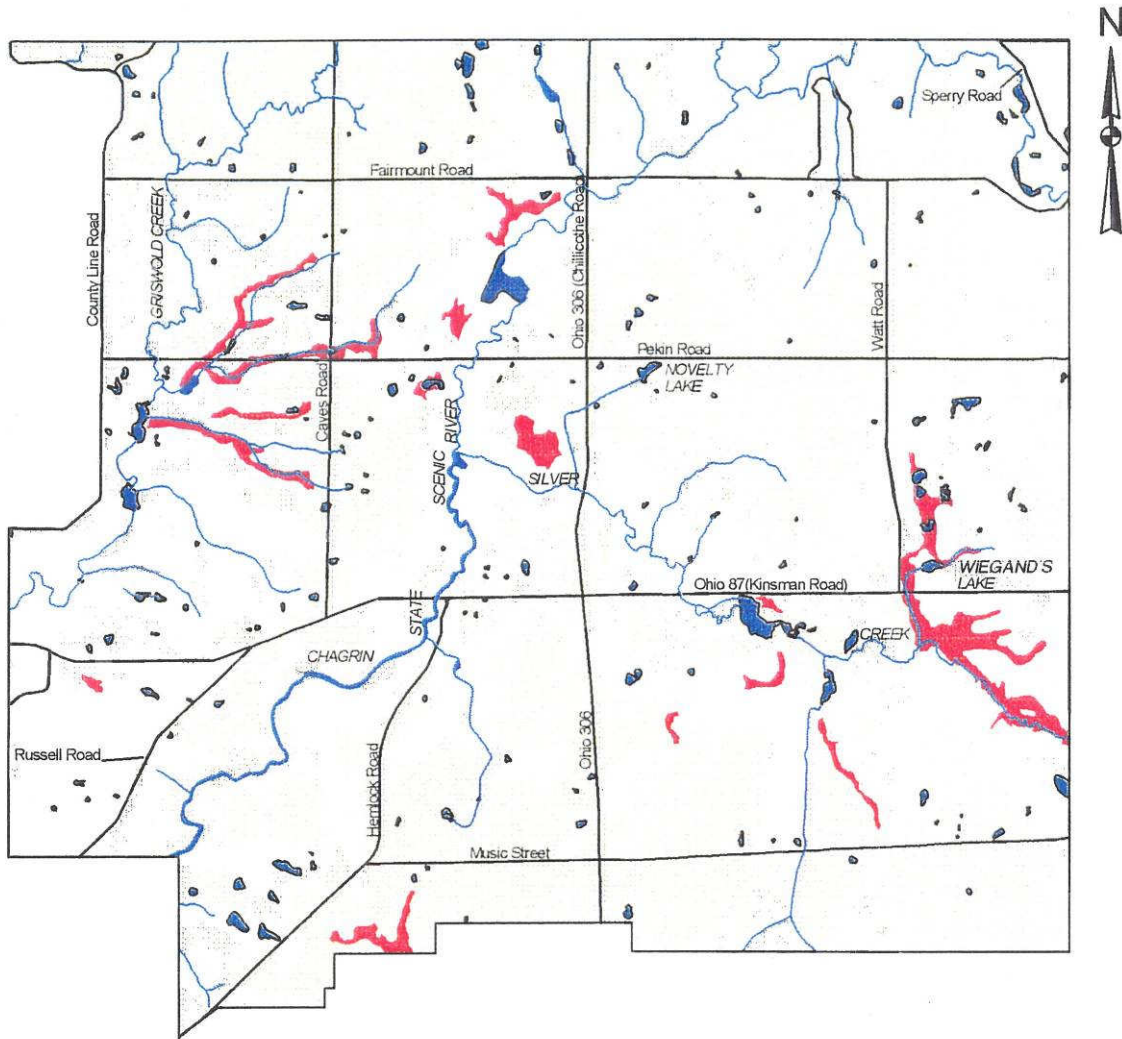
6. Wetlands

The wetlands of Russell Township are plentiful and noteworthy. Wetlands are delineated based on the presence of hydric soils, wetlands hydrology, and hydrophytic vegetation. About 300 acres of hydric soils exist within Russell Township. Figure 3 shows the location of hydric soils and non-hydric soils with hydric inclusions. A larger portion of land (7000 acres) is covered by non-hydric clay-based soils which have small hydric inclusions (slight depressional areas) which become "seasonal wetlands". Mapped wetlands comprise 612 acres, or 5% of the Township.

Wetlands hold significant environmental, aesthetic, and recreational value and deserve maximum protection. Both permanent and seasonal wetlands provide important habitats for a wide variety of plants, insects, and amphibians, some of which are found nowhere else in the Township. Wetlands are important in flood mitigation and stormwater abatement, serving as both sponges and filters. Wetlands are also important for aquifer recharge and for streambank stabilization during high flows. Figure 4 shows the wetlands in Russell Township as shown on the National Wetlands Inventory (NWI) maps prepared by the U.S. Fish and Wildlife Service.

Figure 3. Hydric Soils & Non-Hydric Soils with Hydric Inclusions

Source: ACRT, 1995



The newly acquired West Woods Park, a Geauga Park District project, contains 49 acres of wetlands in the 192 acre of landowners and requiring buffer zones to avoid development encroachments on the West Woods habitat.

Two additional wetlands recommendations should be considered:

- a. Prepare a wetlands inventory and assessment.
- b. Exclude wetlands from lot area in each zone.

7. Tree Canopy and Vegetation

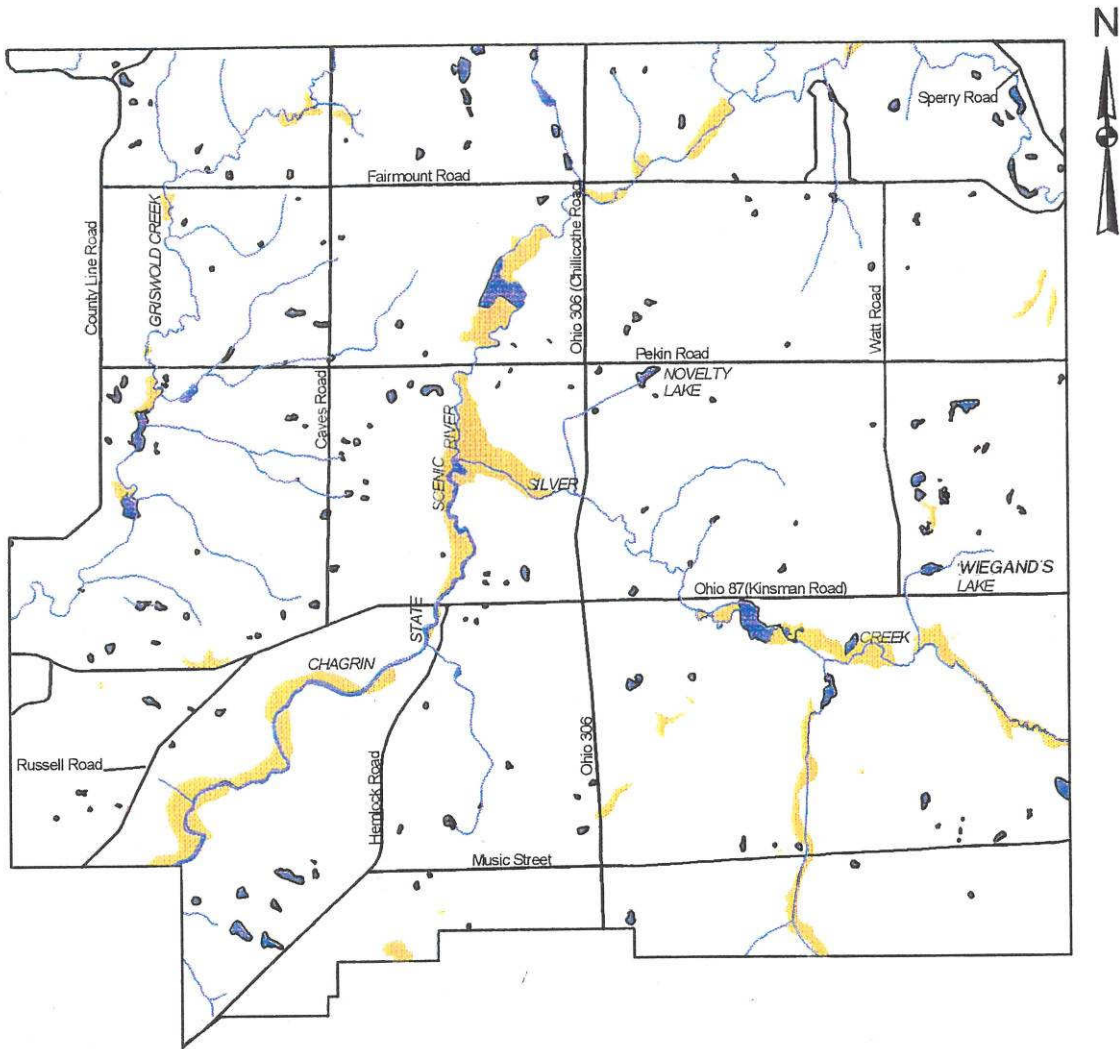
Over 61% of the land (7872 acres) in Russell Township is overlain with mature forests or successional woods. The original vegetation, before extensive farming occurred in the 19th century, was primarily beech and sugar maple, with areas of oak, elm, ash, and willows (in wet areas). Many farm fields have reverted to successional woods, mostly elm, ash, and red maple. The integrity of the mature forests and successional woods is relatively intact. Mature forests are becoming increasingly rare in Northeast Ohio. Woodlands are valuable resources which contribute to the ecosystem by providing wildlife habitats, surface runoff and flood protection, and air quality enhancement, in addition to being aesthetically pleasing and increasing property values. (See Figure 2.)

The Township should consider several actions which would protect the woodland resources:

- a. Institute historic or heritage tree program.
- b. Preserve open space.
- c. Encourage developments to use rural open residential zoning as defined on Page 71.
- d. Adopt tree preservation policies or guidelines.

Figure 4. Wetland Areas

Source: ACRT, 1995



8. Wildlife Habitat

Wildlife diversity is directly related to habitat diversity. The rivers, streams, wetlands, and woodlands in Russell Township are impressive in both quality and quantity. Thus wildlife is also abundant and diverse.

Russell Township can enhance and protect its diverse wildlife by maintaining diverse and abundant terrestrial and aquatic habitats through preservation of open space and avoiding habitat fragmentation. Providing terrestrial and riparian habitat corridors between developed parcels is important. Large areas of unconnected open space can be deceptively ineffective in providing wildlife habitat because they inhibit necessary migration for food, shelter, and mates.

The Township should consider rural open residential zoning (as defined on Page 71) to protect permanent open space. Such open space areas should be connected to other open space and habitat corridors whenever possible. The Township should consider how existing and future dedicated open space is arranged in relation to potential habitat corridors, continuous greenways, and hiking paths.

CHAPTER VI:

LAND USE PATTERNS

A. Introduction

In order to establish future land use policies, it is important to understand existing land use patterns and the policies and forces that created them. Often, in rural communities, development patterns are established by developers or land speculators rather than by a logical governmental process involving citizen participation. Even in communities which have been able to guide their growth with zoning and development regulations, strong pressures for development have resulted in land use patterns that are less than desirable.

Uncoordinated development decisions on a property by property basis often cause environmental and aesthetic problems. Strips of retail uses spring up along the busiest roads which become congested. Housing developments are created that lack open space and ruin the rural character. Developing the land at densities that exceed its natural carrying capacity can also lead to environmental problems including: depletion and pollution of groundwater supplies, soil erosion, flooding, and destruction of wetlands and other wildlife habitats and natural ecosystems.

For the past several decades, development pressures have been increasing in Geauga County with a movement towards urban and suburban densities, particularly in housing. During this period Russell Township has managed to maintain its local environment through the adoption and enforcement of clear land use policies. Development has taken place in Russell since the *1975 Guide Plan*; but for the most part, this development has been in locations and at densities that are in keeping with the environmental capabilities of the land.

This chapter compares the 1974 Land Use Map and Zoning Map with an updated 1995 Land Use Map. The comparison also helps to identify areas of the Township suitable for future development and/or preservation.

B. Land Use Comparisons: 1974 vs. 1995

For the purpose of this comparison it was decided that the land use categories established during the creation of the 1974 Land Use Map would be used. The 1995 Land Use Map was updated using the Township's Zoning and Lot Map, created by C.T. Consultants, Inc. as well as field surveys.

1. Land Use Category Definitions

The 1974 Township Land Use Map — created using an aerial photographic survey⁹ — divided the Township into five major land use categories:

⁹ For details regarding the creation of the 1974 Land Use Map see *1975 Guide Plan*.

-
1. Residential
 2. Commercial/Industrial
 3. Municipal/Religious
 4. Open Space
 5. Orchard/Farm

Residential Land Uses: Those land uses which have been developed for the primary purpose of year-round and/or seasonal occupancy by a family unit. The structural form in which the family is housed can be either a single, double or multiple dwelling. Residential land uses on the Land Use Maps have been further divided into four categories by lot size.

Commercial/Industrial Land Uses: Those land areas which have been developed for the primary purpose of retail business; the provision of personal services, professional and/or business offices; wholesale business, light manufacturing, processing or assembling of goods; commercial agriculture; and similar uses.¹⁰

Municipal/Religious Community Facilities: Those land areas which have been developed for the primary purpose of providing services for the general public at large. These uses may have been developed by public or semi-public agencies such as municipal governments, religious institutions, fraternal organizations, public utilities and school boards. Public recreational facilities were not included in this category in 1974, and have been defined as open space.

Open Space: Those parcels which have been developed to provide a means of meeting the leisure-time needs of the public in terms of active and/or passive recreation. Also included in the open space category are those parcels of land which in the foreseeable future will remain, for all intents and purposes, open and undeveloped. This category applies to cemeteries, land and buildings in historical preservations, and water bodies other than reservoirs.

Farm/Orchard: Those land areas which are actively producing agricultural products, i.e., fruit, poultry, beef, truck gardening, as well as ornamental horticultural plants for commercial and home use. This category also includes former farmland not under cultivation and large estates over 10 acres.

Russell Township is approximately 12,500 acres in area, or slightly more than nineteen (19) square miles. The tabular summary of the 1974 Land Use Map and analysis is found in Table VIII. This can be compared with the tabular summary of the 1995 Land Use Map and analysis found in Table IX.

¹⁰ Commercial recreation facilities have not been included in this category except those portions of the parcel which have been developed in commercially oriented uses. For the purpose of this report, these facilities have been defined as open spaces.

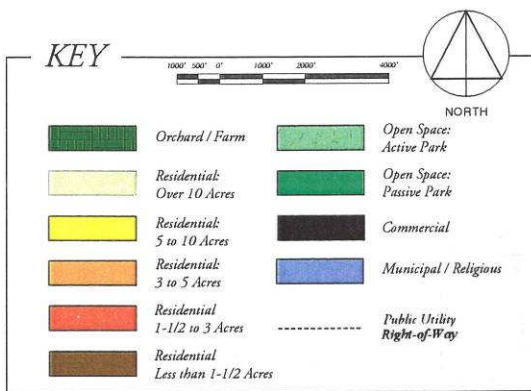
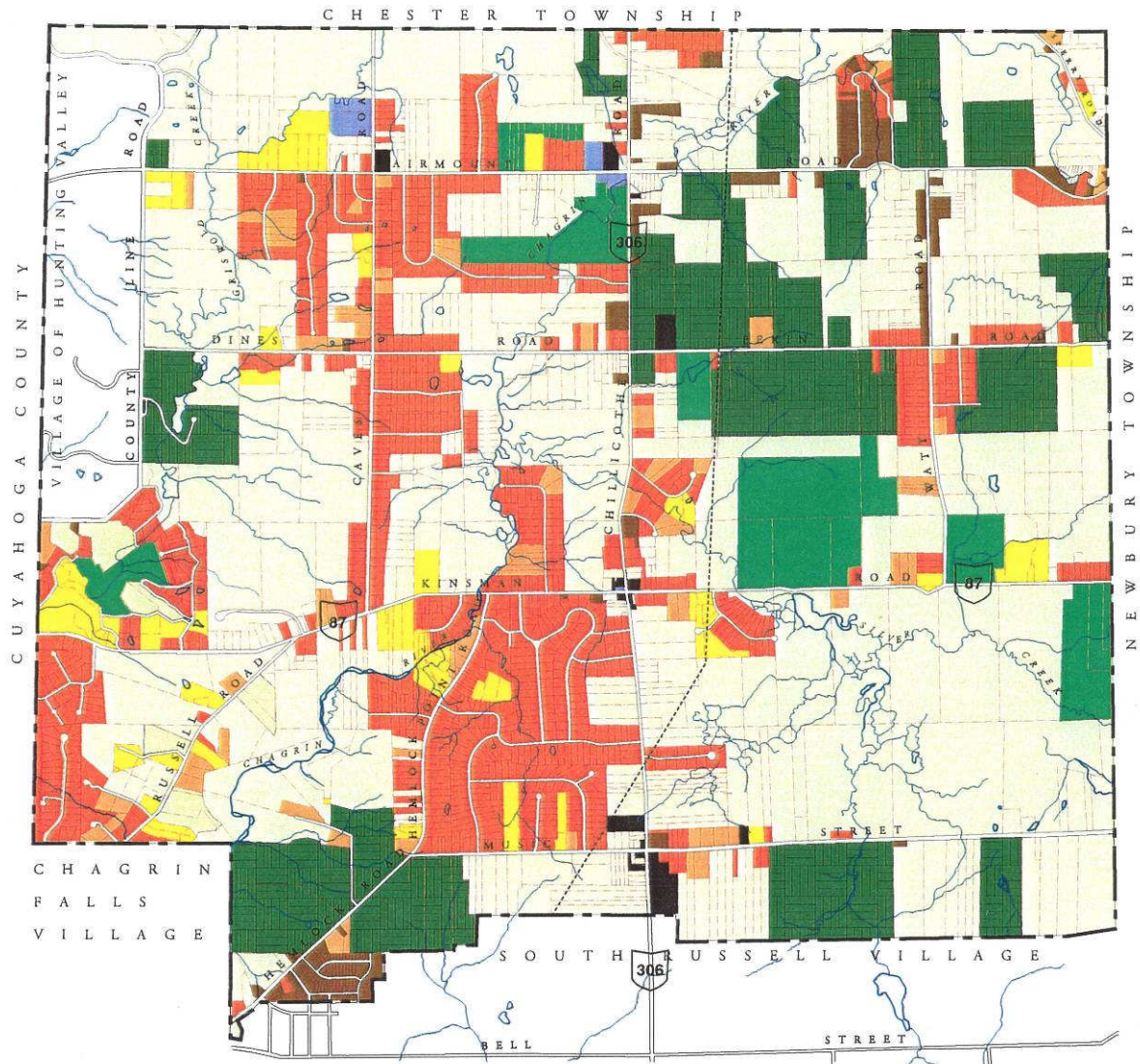
In the Commercial land use category, the entire parcel of land upon which the use is located has been assumed to be totally developed regardless of the percentage of lot coverage by any single building or group of buildings and combinations of accessory uses such as parking, storage, etc.

TABLE VIII
1974 LAND USE

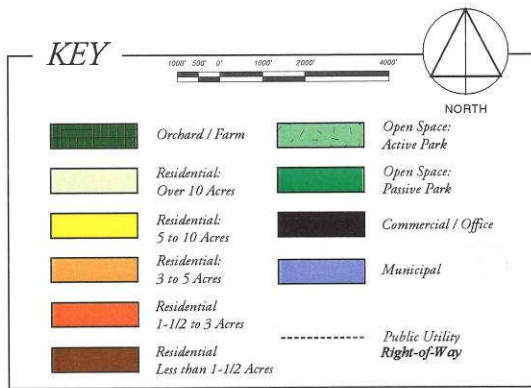
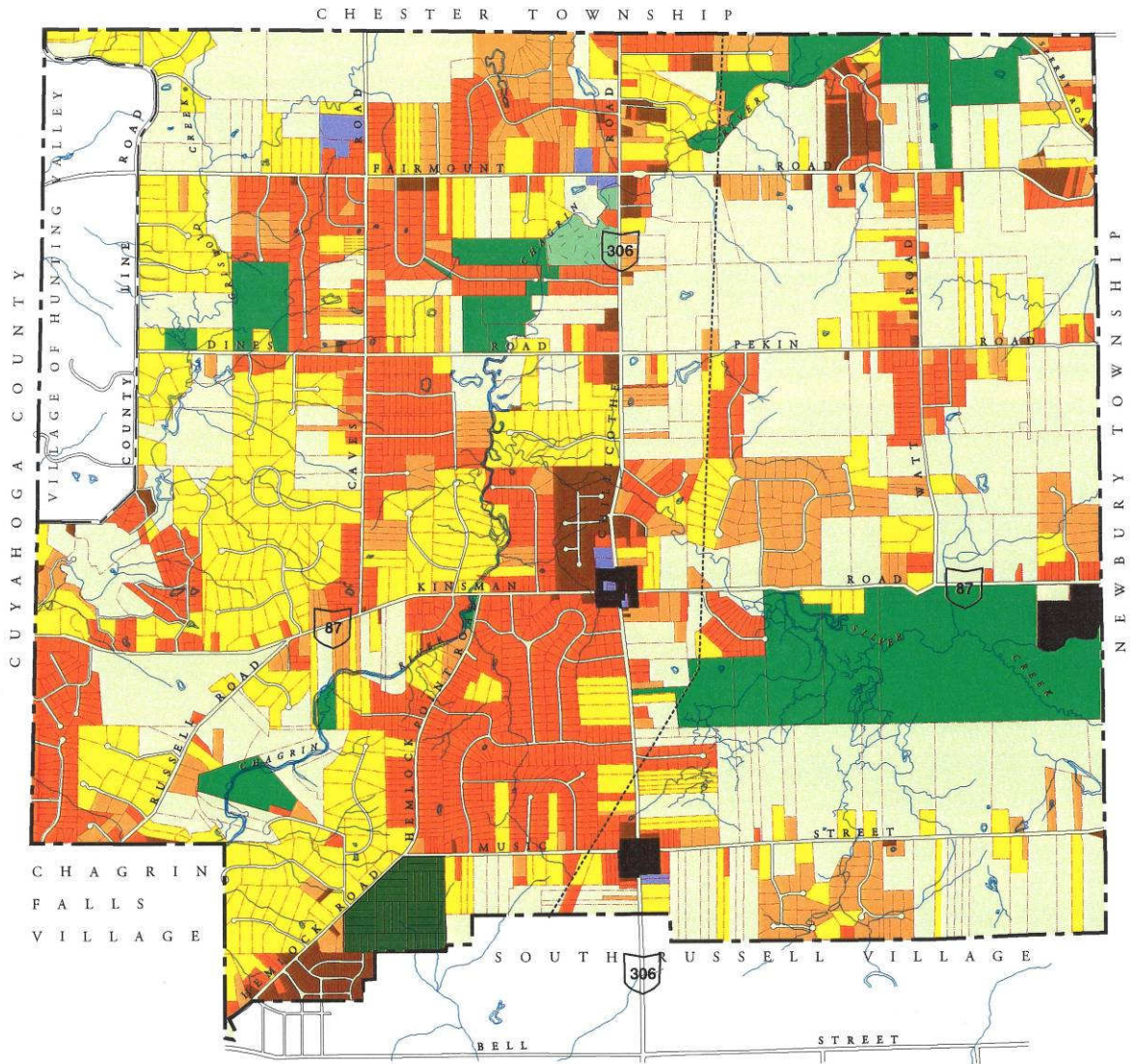
LAND USE	ACRES	SQ. MI.	% DEV.
Residential	3,260	5.09	26.0
Commercial/Industrial	78	0.10	.6
Municipal Facilities/Religious	139	0.22	1.1
Open Space, Institutional	521	0.80	4.2
Orchard, Farmland	1,588	2.51	12.8
	-----	-----	-----
Total Developed Land	5,586	8.71	44.7
Estate/Undeveloped Land	6,914	10.80	55.3
	=====	=====	=====
TOTAL LAND	12,500	19.53	100.0

TABLE IX
1995 LAND USE

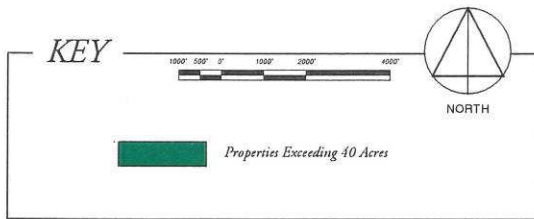
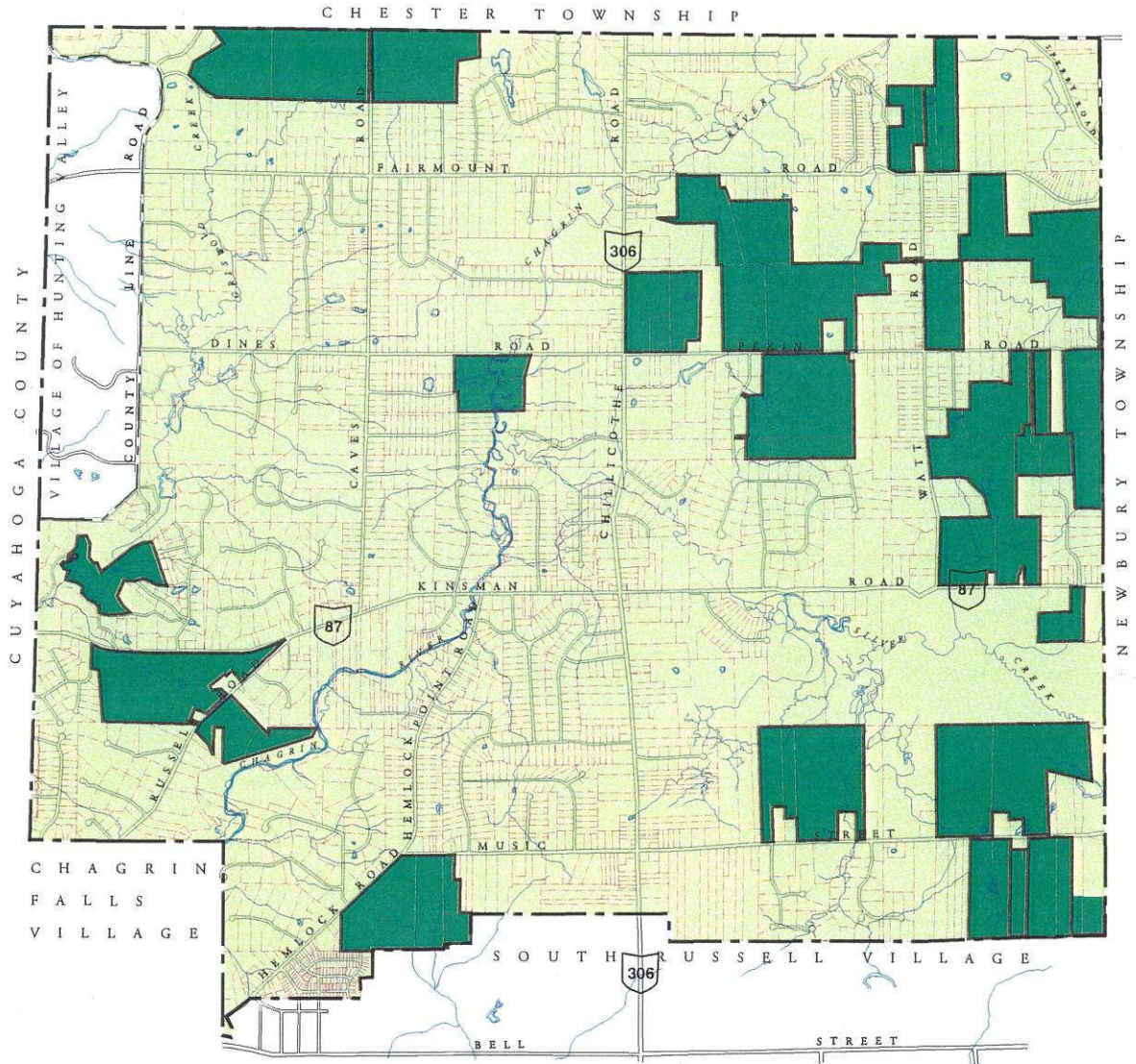
LAND USE	ACRES	SQ. MI.	% DEV.
Residential	7,055	11.02	56.5
Commercial	65	0.10	.5
Municipal Facilities/Religious	139	0.22	1.1
Open Space, Institutional	869	1.36	6.9
Orchard, Farmland	110	0.17	0.9
	-----	-----	-----
Total Developed Land	8,238	12.87	65.9
Estates/Undeveloped Land	4,262	6.66	34.1
	=====	=====	=====
TOTAL LAND	12,500	19.53	100.0



RUSSELL TOWNSHIP
1974 Land Use



RUSSELL TOWNSHIP
1995 Existing Land Use



RUSSELL TOWNSHIP
1995 Large Parcels (Larger than 40 Acres)

2. Analysis:

A comparison of the 1974 and 1995 Land Use Maps, and the 1995 Large Parcels Map and Table VIII and Table IX reveals the following:

- The amount of residential land has more than doubled since 1974 from 3,260 acres to 7,055 acres in 1995 — an increase of 3,795 acres.
- Much of this new residential development has occurred on former orchard/farm or large estates.
 - Total orchard/farm land decreased from 1,588 acres in 1974 to 110 acres in 1995.
 - Estate/undeveloped land decreased from 6,914 acres in 1974 to 4,262 acres in 1995.
- New residential development has, for the most part, consisted of large lot subdivisions -- either 3- or 5-acre lots — in accordance with the zoning policies implemented shortly after the *1975 Guide Plan*.
- The largest new 5-acre lot residential developments were:
 - West of Caves Road between Kinsman Road and Dines Road
 - Northwest of Hemlock Road, South of Kinsman Road
 - North of Kinsman Road between Caves Road and Chillicothe Road
- The largest new 3-acre lot residential developments were:
 - South of Music Street east of Chillicothe Road
 - North of Kinsman Road between Chillicothe Road and Watt Road
- A limited amount of small-lot residential development (less than 3-acre lots) took place between the preparation of the 1974 Land Use Map and the passing of the revised Township Zoning Resolution in 1975. The most notable example occurred northwest of the intersection of Routes 87 and 306.
- Some residential estate development (lots larger than 10 acres) has occurred on parcels scattered throughout the Township since 1975.
- The amount of Open Space (Active and Passive Park Land) has increased substantially with the recent acquisition of West Woods Park, located on land formerly owned by the American Society for Metals. In addition, 200 acres of the former Miller property and 85 acres of the former Affelder property were acquired, adjoining the West Woods. Other properties, acquired by the Russell Park Commission, include over 100 acres strategically situated to protect and preserve the Chagrin River.
- Commercial land use in the Township has been consolidated in two locations: the intersection of Route 306 and Route 87, and the intersection of Route 306 and Music Street. Commercial land area has not increased significantly since 1975.
- Land for Government and Religious uses has remained the same since 1975.

-
- There are still a number of large (greater than 40 acres) undeveloped parcels of land remaining in the Township. The greatest number are east of Chillicothe Road, although some are located in the western half of the Township. See Large Parcel Map for locations.

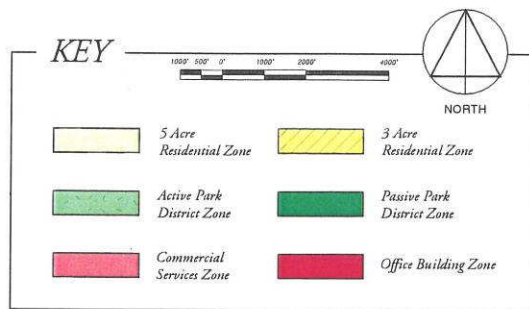
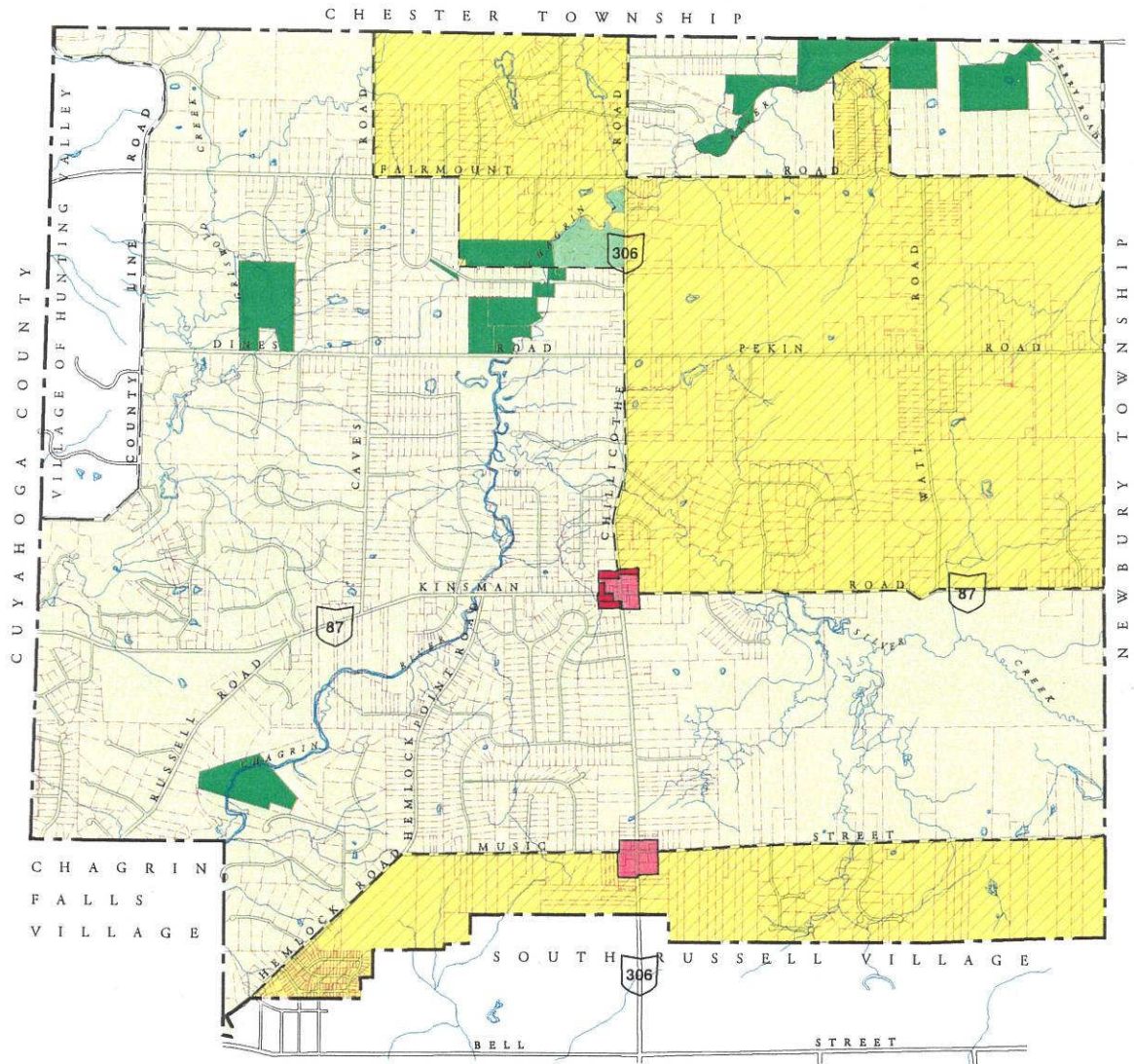
C. Existing Zoning

Shortly after the Russell Land Use Guide Plan was adopted in 1975, the Township updated its Zoning Resolution to bring it into accord with the recommendations of the new Guide Plan. The Zoning Resolution (most recently revised in December 1992) divides the Township into six zoning districts:

- 5-Acre Residential
- 3-Acre Residential
- Commercial Services
- Office Building
- Active Park
- Passive Park

The Zoning Map is shown on the following page.

A comparison of the existing Zoning Map with the 1995 Land Use Map reveals that there are a number of nonconforming residential lots in the Township. This is because prior to 1974 the Township's Zoning Resolution permitted residential lots of less than three acres. These denser pre-1974 developments remain as legal nonconforming uses under the existing zoning. It is recommended that nonconforming lots and uses should be corrected to meet current standards whenever the opportunity arises.



RUSSELL TOWNSHIP 1995 Zoning

D. Existing Road Categories

At the current time Russell Township divides its roads into three major categories:

1. Thoroughfares
2. Feeders/Collectors
3. Local Roads

1. Thoroughfares, also referred to as arterial roads, are designed for through traffic. They typically carry heavy traffic volumes. A secondary function is to provide access to abutting properties.

There are two thoroughfares in Russell Township:

- Route 87 (Kinsman Road)
- Route 306 (Chillicothe Road)

2. Feeders, also known as collector roads, are designed for limited through traffic movement, but are primarily intended to take traffic from local roads and direct it to arterial roads. They typically carry medium traffic volumes. A secondary function is to provide access to abutting properties.

The Russell Township feeder roads are as follows:

North-South:

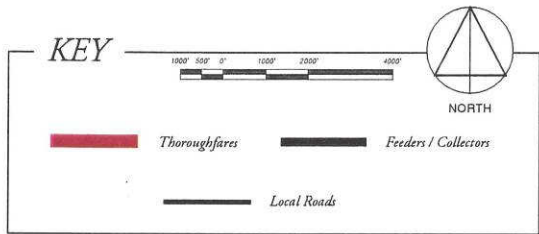
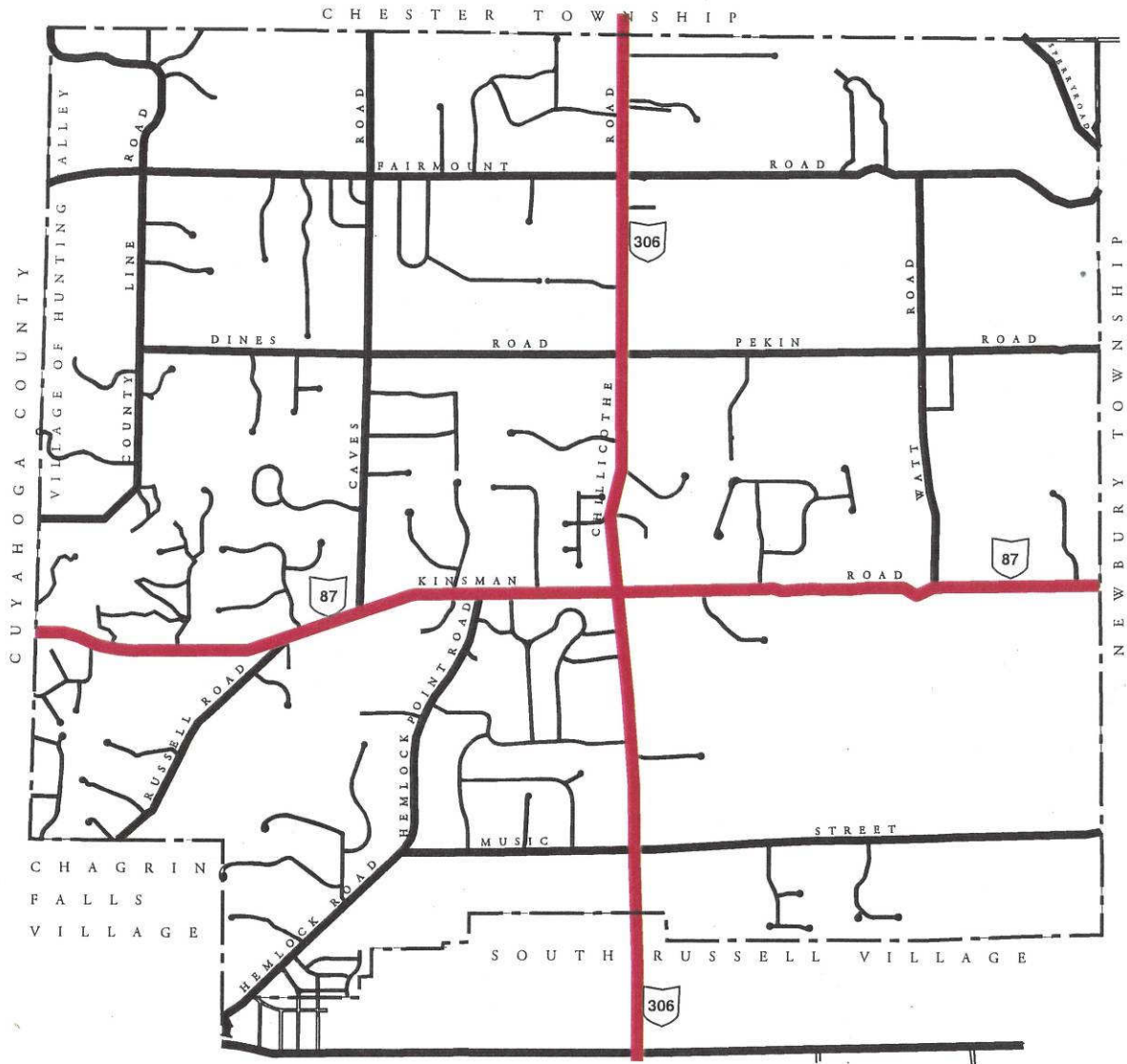
- County Line
- Caves Road
- Watt Road
- Russell Road
- Hemlock Road
- Hemlock Point Road

East-West:

- Fairmount Road
- Dines Road
- Pekin Road
- Music Street

3. Local Roads are designed to provide direct access to abutting properties and to serve local Township needs. They typically carry light traffic volumes.

Russell Township roads not listed as thoroughfares or feeders are classified as local roads. See Russell Township Road Map on the next page for locations.



RUSSELL TOWNSHIP Road Hierarchy

E. Public Utilities

Public utilities in Russell Township include water, sewer, gas, phone, electricity, and cable television.

1. Water and Sewer Service

Nearly all households in Russell Township have on-site wells and septic systems. Two small developments in the southwest corner of the Township — Chagrin Heights and Scarsdale Estates — adjacent to Chagrin Falls Village are connected to the Chagrin Falls Village public water system. Plans are currently underway to connect these developments to the Chagrin Falls Village sewage treatment system. Several subdivisions were constructed in the 1950s and 1960s with package treatment plants that are operating currently.

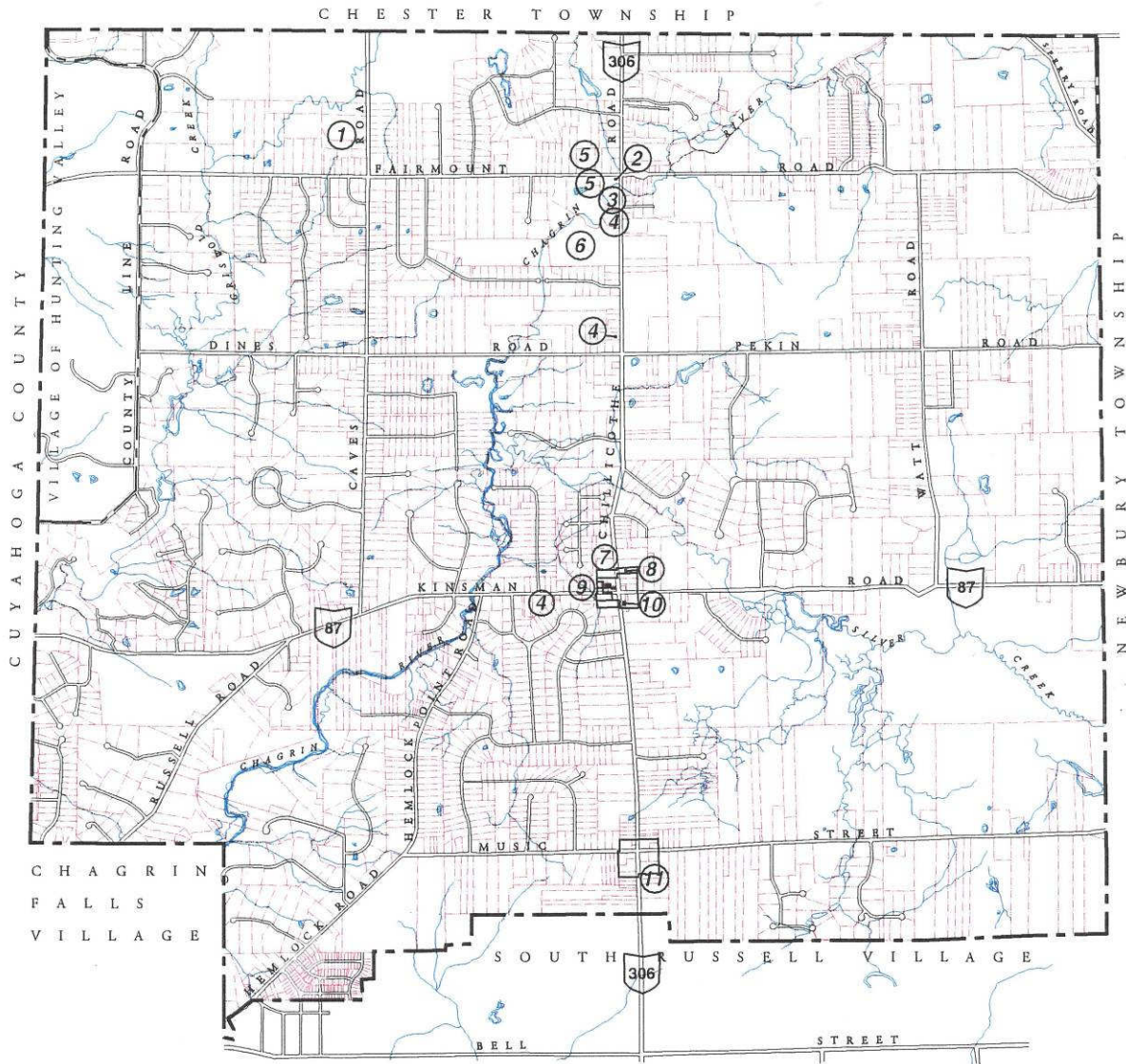
2. Phone, Cable, Gas, and Electricity

All homes and businesses in the Township are provided with electricity and telephone service. Cable television service is available to all homes. Gas service is presently available in most parts of the Township. Areas presently without gas service can have a feeder line extended to their street if sufficient landowners agree to apply.

F. Government Facilities, Schools, and Public Institutions

Government facilities, schools, and public institutions in Russell Township include:

1. Westwood Elementary School
2. Briar Hill Meeting House
3. Bob Hall Memorial Field
4. Churches
5. Cemeteries
6. West Geauga Commons
7. The Former Russell School Building and Site
8. U.S. Post Office
9. Police Station, Historic Russell Town Hall, Administrative Offices
10. Russell Fire Department
11. Russell Road Garage and Office



KEY

1000' 1000' 1000' 2000' 4000'

NORTH

① Westwood Elementary School	⑦ Former Russell School
② Briar Hill Meeting House	⑧ U.S. Post Office (Novelty, Ohio)
③ Bob Hall Memorial Field	⑨ Police Station, Historic Russell Town Hall, Administration Offices
④ Churches	⑩ Russell Fire Department
⑤ Cemeteries	⑪ Russell Road Garage and Office
⑥ West Gauga Commons	

RUSSELL TOWNSHIP
*1995 Government Facilities, Schools,
 and Public Institutions*

CHAPTER VII:

REGIONAL RELATIONSHIPS

A. Introduction

Russell Township is in the Northeastern Ohio Seven County Region and on the edge of the Cleveland Metropolitan Area.

The Seven County Region, administered by the Northeast Ohio Areawide Coordinating Agency (NOACA), includes Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties (see Figure 1). The Cleveland Metropolitan Area can be roughly defined to include all areas within a 30-40 minute commuting distance from Cleveland (see Figure 2).

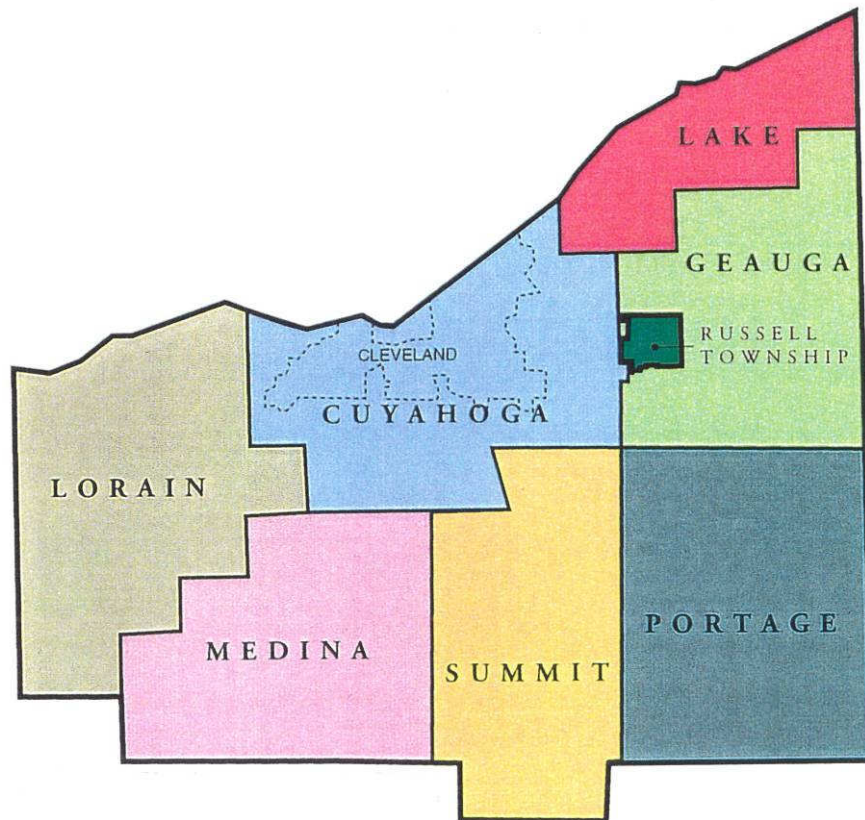


Figure 1. NOACA Seven County Region Map

Two major forces are currently altering the way in which the Region will function in the future. On one hand, the City of Cleveland is experiencing a renaissance. Recent downtown projects such as the new baseball stadium, sports arena, and the Rock and Roll Hall of Fame are attracting business investment and people to the City. On the other hand, rapid improvements in electronic communications technology are helping to decentralize businesses. Offices are able to move out to suburban locations, and many people are working at home -- doing their commuting via modem and computer. Both of these trends, the economic growth of Cleveland and the decentralization of commercial offices, will increase demand for residential development within the Region. Automobile commuters will seek housing that is within a reasonable distance of their work place, while telecommuters may prefer ex-urban areas that are still close enough to the city to allow them to enjoy its amenities, while far enough removed to avoid its problems. Russell Township, because of its location, as well as its rural character and environmental quality, is likely to continue to attract residential development.

This Chapter will explore these regional trends and their potential effects on the Township.

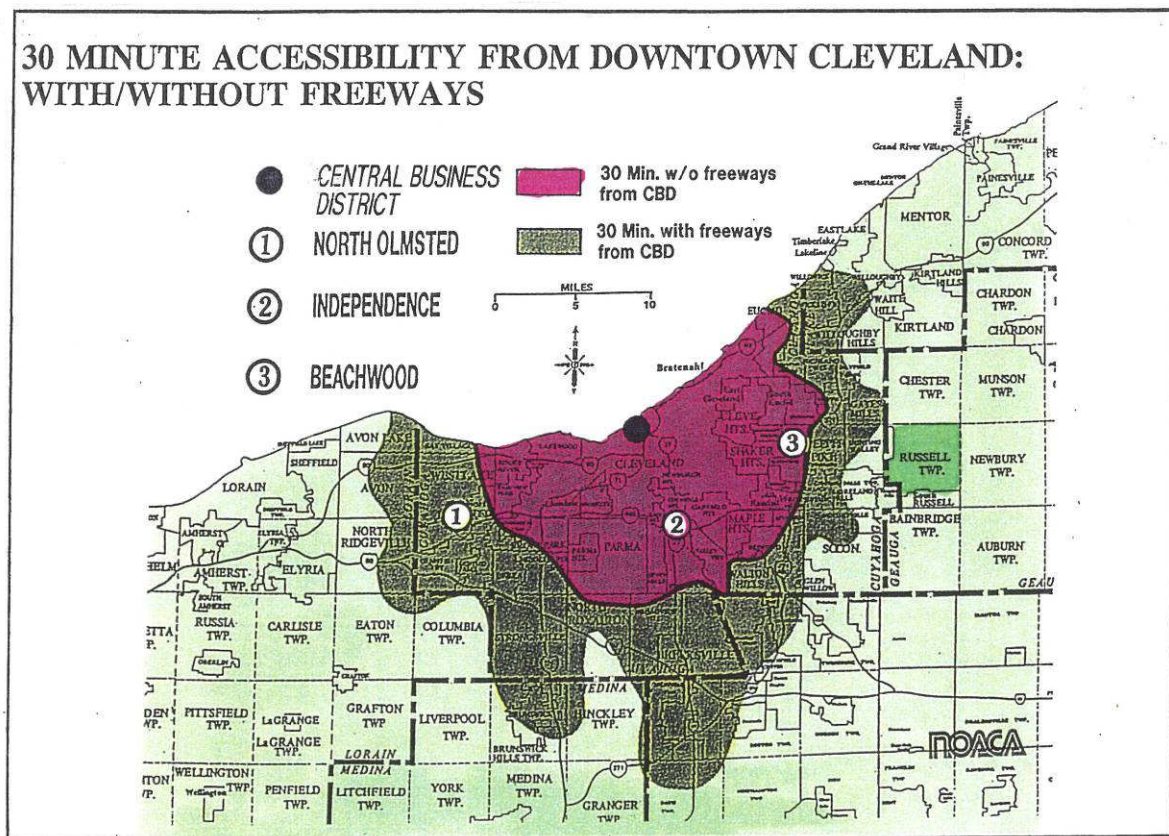


Figure 2. 30 Minute Commuting Distance -- Cleveland Metropolitan Region

B. Regional Context

1. Proximity to Downtown Cleveland

Located only 26 miles from downtown Cleveland, Russell Township seems more like the rural residential and farming communities to the east than it does to Cleveland and its surrounding suburbs.

However, Russell Township is closely connected to the greater Cleveland Metropolitan Area because the majority of Township residents work in either downtown Cleveland or at one of its suburban commercial centers or "edge-cities".

Figure 2, a map prepared by NOACA and entitled *30 Minute Accessibility From Downtown Cleveland*, shows graphically that Russell Township is located just on the edge of what is considered to be a reasonable commuting distance from the Cleveland central business district (CBD) — thirty minutes by freeway. It is also within easy commuting distance of the business and office centers located to the east of Cleveland.

2. Russell Township in the Context of Cuyahoga and Geauga Counties

Russell Township is influenced by the growth and development taking place in the contiguous townships and villages of Cuyahoga and Geauga counties (Figure 3). As development has expanded outward from Cleveland over the past several decades, western Geauga County has become a target for residential and non-residential development.

Because most of these neighboring communities did not institute environmentally based planning policies, much of the development has been at suburban densities. As a result, the natural character and environmental quality of this sub-regional area has been threatened or destroyed. Like much of Eastern Ohio, the natural landscape here is characterized by gently rolling hills, thick woods, grassy meadows, stream corridors and low-lying wetlands.

A more positive impact for Russell residents of the development in the sub-regional area has been the increase in local amenities — including shopping, employment opportunities, and varied housing options. Chardon Village, the Geauga County seat, is a 20-minute drive from Russell.

The townships and villages adjacent to Russell Township are described below.

Hunting Valley Village, located partly in Cuyahoga County and partly in Geauga County, is a largely rural, lightly populated village with little prospect for growth. Most of the land is divided into large residential properties; and its Guide Plan and Zoning Resolution support the continuation of the Village as a rural residential community.

Chagrin Falls Village, located along the southwestern edge of Russell in Cuyahoga County, is an older community with historic charm. Chagrin Falls Village's historic business center offers a small village atmosphere with a wide variety of specialty stores. The Village is connected to the Cleveland regional water system.

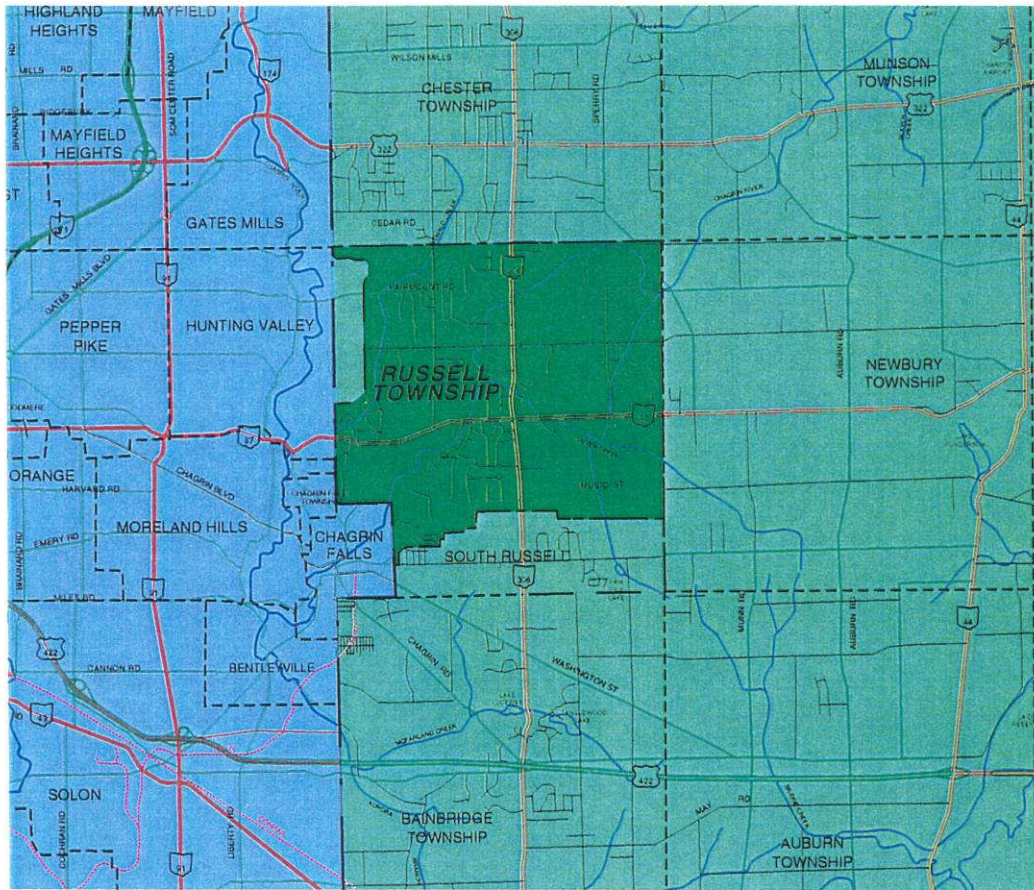


Figure 3. Russell Township in the Context of Cuyahoga and Geauga Counties

Chester Township: Located to the north of Russell, Chester is a more highly populated township which has grown steadily over the last several decades. Chester is also a shopping destination for Russell residents. The Chesterland shopping district, located at the intersection of Route 306 and Route 322, has a variety of medium-sized sub-regional stores including grocery, hardware and convenience stores, banks, fast food restaurants and gas stations.

Newbury Township, located to the east of Russell, has developed several small industrial parks and some strip industrial and commercial uses on State Route 87, which links Newbury to Russell. It is unlikely that the industrial-commercial development on Route 87 will have much influence on Russell. However, for regional planning purposes, State Route 44 in eastern Newbury Township has been designated the "urban boundary" of the Cleveland metropolitan area. This means that the federal and regional planning agencies have envisioned Russell as part of the area which potentially could be served by city utilities.

South Russell Village was originally part of Russell Township but broke away in 1923 to form its own Village. It is predominantly residential with a small shopping complex located at the intersection of Route 306 and Bell Street.

Bainbridge Township: To the south of South Russell Village lies Bainbridge Township, which has been growing rapidly due to the opening of relocated Route 422, linking southern Geauga County with Cleveland and Warren, in 1993. There are two commercial centers in Bainbridge offering food stores, a wide variety of hard goods, movie theater, and banks. Commercial development is proceeding at the junction of East Washington Street ("old 422") and State Route 306, and there is pressure to continue commercial growth north along Route 306 towards South Russell Village.

C. Commuting Patterns

1. Russell Township to Downtown Cleveland

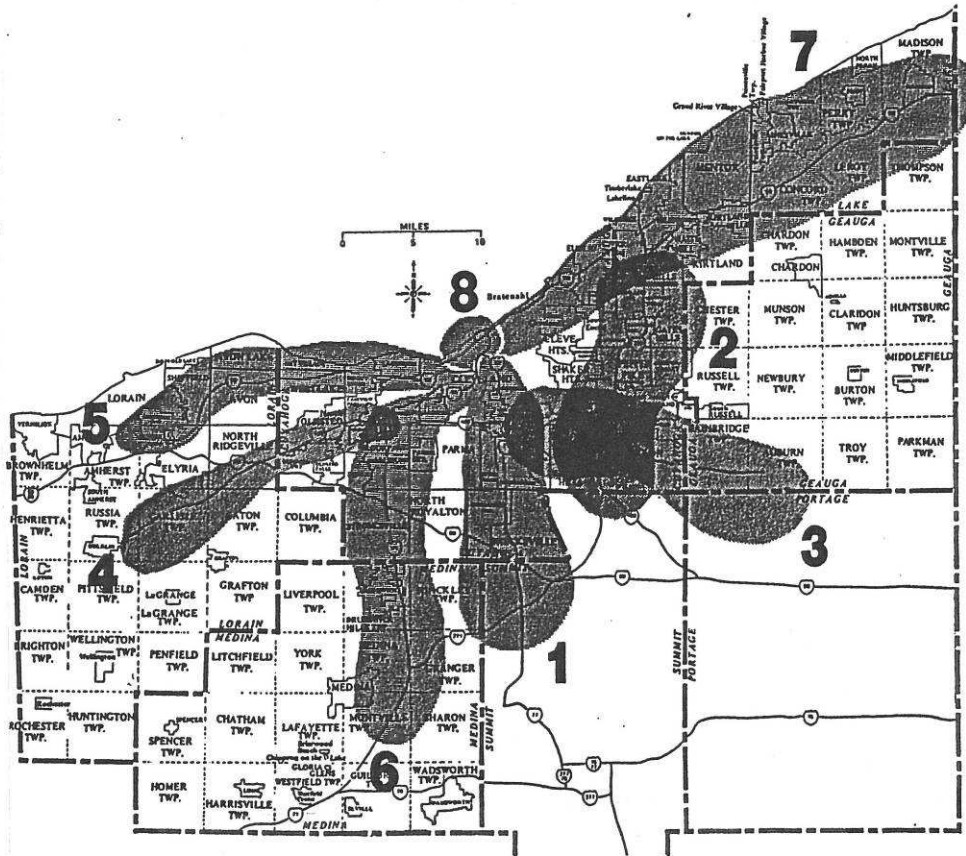
Russell Township is not located directly adjacent to any of the major transportation corridors leading to downtown Cleveland (see Figure 4: Regional Freeway Corridors). The commute to downtown Cleveland is made by connecting to one of these major corridors. The commute to downtown Cleveland takes 45 minutes.

A few residents drive and park at the Greater Cleveland RTA station in Shaker Heights and ride the train to downtown. The Long Range Plan of RTA calls for an extension of the commuter line into Pepper Pike at the intersection of I-271.

2. Regional Commuting Patterns

Studies have been conducted by NOACA to determine commuting patterns on a regional scale. Figure 5 entitled Work Trips: Internal and to Contiguous Counties, reveals the changing nature of work trips over time. While there has been a steady increase, from 1970 to 1990, in the number of work trips from other counties into Cuyahoga County, during this same period of time the number of work trips among counties, and internal to each county also has been steadily increasing.

The most noticeable effect is an increase in traffic using the major thoroughfares such as State Routes 306 and 87. Although the overall population of the region has declined slightly, the total number of vehicle registrations has increased by more than 150% since 1960 and is projected to double by the year 2010. (See Figure 6: Transportation Modeling Input Variables.) This will result in increased regional traffic on Russell Township thoroughfares and collector roads in the future.



1. I-77: I-90 Innerbelt into Northern Summit County
2. I-271: I-90 in Lake County to I-480 in Northern Summit County
3. I-480/US-422: I-77 East into Southern Geauga County
4. I-480/ST-10 and US-20: I-77 Southwest into Central Lorain County
5. I-90: I-71 West through Western Cuyahoga and Northern Lorain County
6. I-71: I-90 in Cuyahoga County to South of SR-18 in Medina County
7. I-90/SR-2: I-90 Innerbelt Northeast through Lake County
8. Cleveland CBD: I-90 Innerbelt and SR-2 Shoreway

Source: NOACA - Long Range Plan Update: The Year 2010 Transportation System, DRAFT - 1994

Figure 4. Regional Freeway Corridors

WORK TRIPS: INTERNAL AND TO CONTIGUOUS COUNTIES: 1970, 1980, 1990

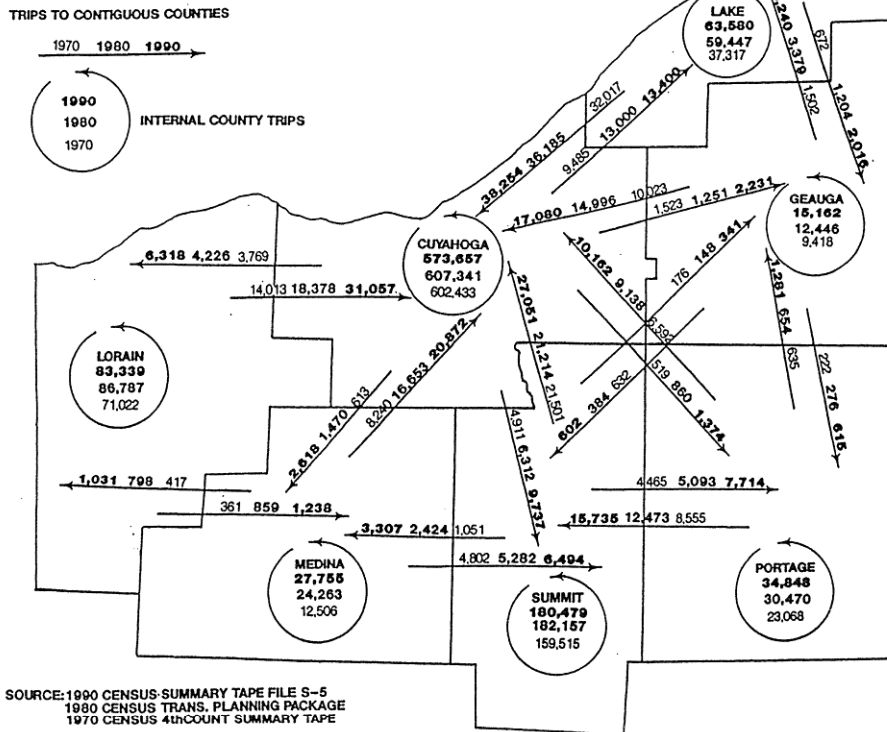


Figure 5. NOACA - Work Trips - Internal and to Contiguous Counties: 1970, 1980, 1990

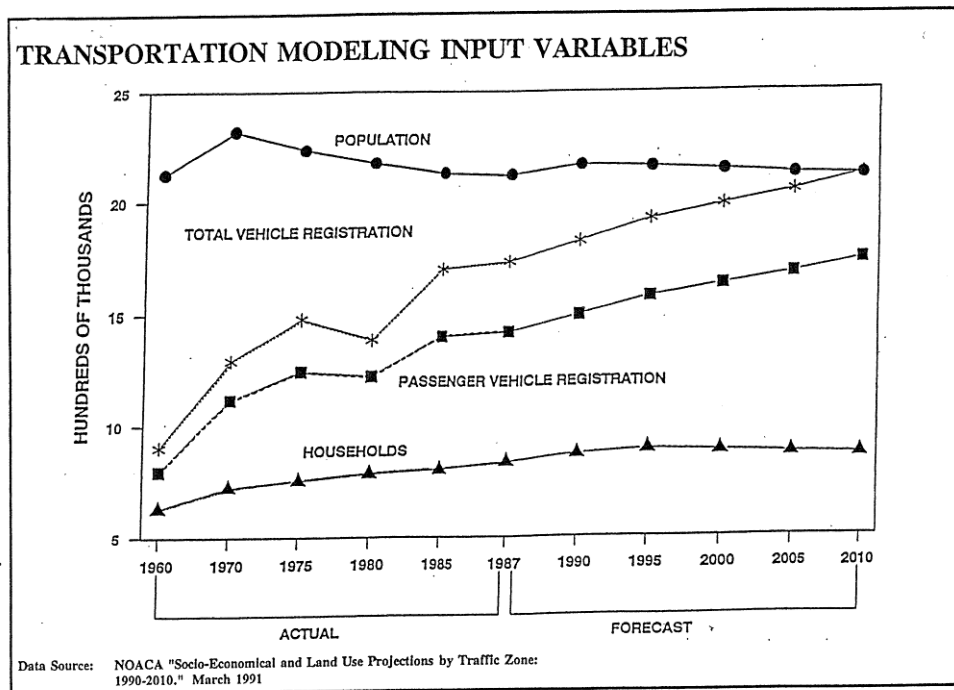


Figure 6. NOACA Transportation Modelling Input Variables

D. Regional Retail Shopping

For major shopping excursions, most Russell Township residents go to Eastgate, located west on Mayfield Road (S.R.322) in Mayfield Heights. Other shopping areas frequented by Russell residents include: Beachwood Mall in Beachwood, Village Square in Woodmere, Lander Circle in Pepper Pike, the Village of Chagrin Falls, and the City of Solon. Also there are the full-service regional shopping areas of the Great Lakes and Mentor Malls in the City of Mentor in Lake County.

E. Regional Office/Industrial Development

Existing office space in western Geauga County is available to the north of Russell in Chester Township. To the south, Bainbridge Township has some office space on East Washington Street as does South Russell Village at the Bell Street and State Route 306 intersection. In Cuyahoga County, Chagrin Falls Village has both retail and office space. Solon has both retail and office facilities. To the west along the Chagrin Blvd. corridor in Beachwood, Pepper Pike, and Woodmere there is an abundance of retail, office, and commercial space. The Mayfield Road corridor into Mayfield Heights offers retail, office, and commercial facilities.

Industrial development opportunities are offered in many nearby locations. To the east in Geauga County, Newbury Township has Newbury Industrial Parkway, Cross Creek Parkway and much commercial and industrial zoned land along State Route 87. To the southeast Auburn has industrial zoning along Munn Road, State Route 422, and other areas are under consideration. Bainbridge Township provides limited industrial and commercial zoning off East Washington Street. Solon, to the west in Cuyahoga County, has industrial lands in many locations including Aurora Road, Cochran Road, parts of Harper Road, and Neiman Parkway on the Bedford Heights boundary.

F. Regional Housing Opportunities

Within 10 minutes drive north, south, east, and west there are single-family residences from just under \$100,000 up to several million dollars. Lot sizes generally are from ½-acre to 5-acre minimums. Many residential lake communities exist in South Russell Village and Bainbridge Township, most in some version of cluster planning. The lake communities of Tanglewood and Auburn Lakes also have golf courses. Geauga County offers many and varied sizes and prices in single-family homes. Smaller country houses are available in Newbury under \$100,000. This price range can be found in a few locations in Bainbridge and Chester townships. Chardon, Burton, and Middlefield areas have a larger number of affordable housing opportunities. There is public housing in Bainbridge, Newbury, Chardon Village, and Middlefield Village.

Rental apartments and condominiums are available in quantity in Solon, Mayfield Heights, and many communities a short distance west. Condominium living is offered in Newbury, South Russell, Auburn, Chagrin Falls and to the west in Moreland Hills Village in price ranges from \$50,000 to \$400,000.

Various senior housing and medical facilities are provided within Geauga County, including Heather Hill in Munson Township, Holly Hill in Newbury Township, Briar Hill in Middlefield Village, Blossom Hill in Huntsburg Township, and Chardon Quality Care in Chardon Village. Group homes for the elderly are scattered throughout Geauga County. Also, similar facilities are available in adjoining counties.

CHAPTER VIII:

PLAN RECOMMENDATIONS

A. Introduction

Striking a balance between growth and development on the one hand, and maintaining the character, quality, and health of the natural and built environment on the other hand, requires a careful and creative approach to land use and growth management. It is recommended, therefore, that the land use and growth management policy in Russell Township be developed using a framework of *Development Districts*. This framework is relatively simple in structure, and yet provides for more appropriate and site-specific land development options than a conventional zoning district framework.

The Development District framework, like a conventional zoning framework, divides the Township into a number of land use Districts. However, unlike conventional zoning districts, this framework provides encouragement to property owners to use environmentally sustainable forms of development.

1. Open Space

An important goal of this plan is the protection of public open space and sensitive environmental areas within the Township. The Public Opinion Survey revealed strong support for maintaining and enhancing the character of the Township through the preservation of open spaces, scenic and roadside views, fields, and wooded areas.

One of the most effective ways for the Township to preserve open space is to acquire land for active or passive parks. Another method is through supplementary land use policies, such as requiring open space as an integral part of new development. Rural open residential zoning (as defined on Page 71) is designed to group the open space contained in large lots into a large continuous area. The open space in such a development is typically not open to the general public, but rather is for the use and enjoyment of development residents.

Preserving open space as an integral part of a private development raises a number of issues regarding maintenance and ownership of the common open space. Stronger policies should be developed to clarify these issues.

2. Parks/Recreation/Trails/Greenways

Russell Township has created and maintained an active and passive park system. Russell Township has a Park Commission and levy to support park acquisition and protection. The parks not only contribute to the preservation of the Township's environment and rural character, but are considered a valuable amenity by Township residents. The recent addition of the West Woods Park in the southeast quadrant of the Township is a significant addition to the parks system.

The Public Opinion Survey asked residents a number of questions about parks, recreational facilities, trails, and open spaces. Over 50% of the respondents said they used these amenities

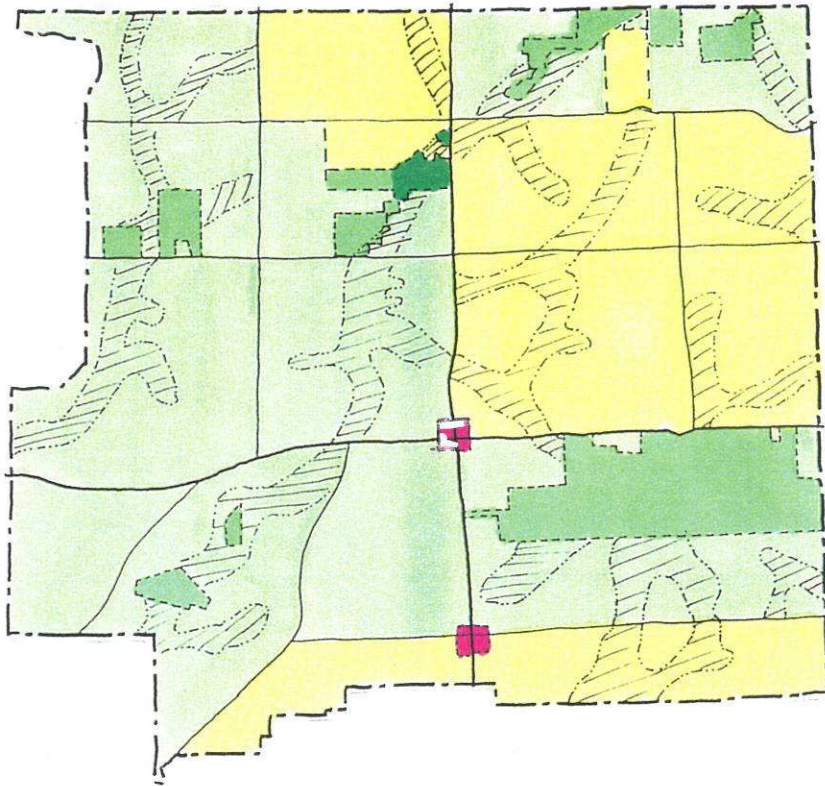


Figure 1. Russell Township District Map

		USES							
		INDIVIDUAL RESIDENTIAL LOTS	OPEN SPACE SUBDIVISION	COMMERCIAL	OFFICE BUILDING	PASSIVE RECREATION	ACTIVE RECREATION	COMMERCIAL RECREATION	SCHOOLS, CHURCHES, GOVERNMENT FACILITIES
DISTRICTS	RURAL OPEN RESIDENTIAL	✓	✓					✓	✓
	RURAL RESIDENTIAL	✓						✓	✓
	CROSSROADS COMM. & SERV			✓					✓
	CROSSROADS OFFICE BLDG.				✓				✓
	ACTIVE PARK						✓		
	PASSIVE PARK					✓			
	ENVIRONMENTAL OVERLAY								

Figure 2. Districts/Uses Matrix

frequently. The most popular activities are walking and hiking (75%), followed by ballfield activities - baseball, soccer, football (26%), and picnicking (25%); skiing, cycling, and jogging along park trails were also popular activities.

B. Development Districts

Development Districts are areas in the Township that share physical characteristics such as aquifers, soil permeability, and existing development patterns. The environmental characteristics of the District, in turn, determine the types of land use and development that can be permitted within that District.

The Guide Plan recommends that the Township be divided into seven Districts as follows:

- Rural Open Residential (5-acre-per-dwelling-unit-minimum overall development density)
- Rural Residential (3-acre-minimum lot size)
- Crossroads Commercial and Services (Commercial uses and services)
- Crossroads Office Building (Office buildings)
- Active Park
- Passive Park
- Environmental Overlay

1. Rural Open Residential:

- This District was included in the Rural Open land use category in the *1975 Guide Plan*.
- The maximum development density is one dwelling unit per five (5) acres.
- The development density is based upon the limiting factors of soil type and formation, groundwater supply, slope, wetlands, flooding potential, woodlands, and existing land use patterns.
- Environmental, landscaping, setback, and buffering standards may be required to ensure that development is environmentally sound, rural in character, and separated from adjacent land developments.
- Development may be in the form of 5-acre-minimum-size individual lots, or by open space subdivision, as defined in this section.
- Open space subdivisions are defined according to the following purposes and standards:

The purpose of the open space subdivision is to provide for residential developments that accommodate the goals of protecting groundwater supply, protecting habitat, and preserving open space, as well as preserving the natural features of the site and reinforcing the rural and scenic character of the surrounding area.

The open space subdivision is patterned after the traditional rural landscape in which residential or farm buildings are surrounded by farm fields and woodlots. The open space subdivision provides for single-family residential development on a portion of the site, with the remainder preserved as common open space for use by the residents, or as large private "conservancy" lots of 10 acres or more. Because of the large amount of open space, individual lots can be reduced in size while the overall density does not exceed the 5-acre minimum in the District.

The common open space is protected in perpetuity from future development and should remain in undivided ownership by a property owners' association with appropriate easements given to a land conservation trust. The Township should also be given a right to enforce

easements through deed restrictions or appropriate easements. Allowable uses for the open space include farming, pasture, meadows, woodlots, parks, trails, and playing fields. It is recommended that the following three rules be followed for homeowners' associations: (a) membership must be mandatory and automatic; (b) association bylaws must give the association authority to place a property lien against a homeowner who does not pay the annual assessment; and (c) open space should be kept simple so the maintenance costs are minimized. It is also possible to preserve open space through the creation of large private conservancy lots, which are typically residential lots of 10 or more acres with one dwelling.

Open Space Subdivision developments are based on the following design standards:

- **Form:** Open Space Subdivision developments combine large lots with common open space to create an environmentally sound residential development that maintains the character of the rural Ohio landscape.
- **Development Area:** The development area should be located to take maximum advantage of the surrounding open space. Factors for siting the development area include, but are not limited to: (a) optimizing views into the open space - both from the residences and the public roadways; (b) providing suitable open space areas for agricultural or environmental purposes; and (c) minimizing the amount of site grading and tree removal.
- **Relationship of Houses to Open Space:** Open space should, wherever possible, front the local collector or arterial road. Houses should be located internally within the development site.
- **Streets/Access:** Internal streets should be of a rural scale when possible.
- **Incorporating Special Features:** Open Space Subdivisions should, wherever possible, include existing features such as farmhouses, barns, silos, fences, stone walls, ponds, tree lines, and hedgerows. A special effort should be made to preserve historic buildings and natural features of historic value.
- **Open Space:** Consistent with the goals of this section, a portion of the property is to be preserved as permanent common open space or conservancy lots of 10 acres or greater.

2. Rural Residential:

- This District was included in the Rural land-use category in the *1975 Guide Plan*.
- The maximum development density is one single-family dwelling unit per three (3) acres.
- The development density is based upon the following limiting factors: soil type and formation, slope, groundwater supply, wetlands, flooding potential, woodlands, and existing land-use patterns.
- Development may be in the form of 3-acre-minimum-size individual lots.
- Environmental, landscaping, setback and buffering standards may be required to ensure that development is ecologically sound, rural in character, and buffered from adjacent developments.
- Consideration should be given to requiring continuous open space areas in subdivision plans.

3. Crossroads Commercial and Services:

- The Crossroads Commercial and Services District is located at the two main crossroads in the Township: at the intersection of Route 306 and Route 87, and at the intersection of Route 306 and Music Street.
- The Crossroads Commercial and Services District encompasses all of the existing commercial and services zones.

-
- The purpose is to provide convenient locations in the Township for small-scale retail or service uses designed to meet the needs of residents without expanding the commercial and services zone. Office building zones should be preserved to buffer residential uses from commercial and services uses.
 - Environmental and site design standards may be required to ensure that development in the Crossroads Commercial and Services District is ecologically sound, protects groundwater, minimizes the risk of flooding and erosion, fits in with the rural surroundings, minimizes traffic congestion, and is buffered from adjacent land uses.
 - It is recommended that the Crossroads Commercial and Services District be developed to encourage a rural traditional small town commercial atmosphere rather than a *strip mall* look.

4. Crossroads Office Building:

- The Crossroads Office Building District is located at one of the main crossroads in the Township: at the intersection of Route 306 and Route 87.
- The Crossroads Office Building District encompasses all of the existing office building zones.
- The purpose is to provide convenient locations in the Township for office building uses designed to meet the needs of residents without expanding the office building zone. The Crossroads Office Building District should be located to buffer residential uses from commercial and services uses.
- Environmental and site design standards may be required to ensure that development in the Crossroads Office Building District is ecologically sound, protects groundwater, minimizes the risk of flooding and erosion, fits in with the rural surroundings, minimizes traffic congestion, and is buffered from adjacent land uses.
- It is recommended that the Crossroads Office Building District be developed to encourage a rural traditional small town commercial atmosphere rather than a *strip mall* look.

5. Active Park:

- Active Park Districts are areas of the Township designated for active organized recreation.
- Activities typically include baseball, soccer, football, swimming, playgrounds, and similar uses.
- The District permits ancillary facilities such as recreation service buildings and visitor parking.

6. Passive Park:

- Passive Park Districts are areas of the Township designated to meet the passive recreation and leisure-time needs of the public.
- Passive recreation may include hiking, horseback riding, fishing, bird-watching, and similar activities.
- The District may permit ancillary facilities for passive recreation activities such as nature trails and park shelters.
- A major enhancement of the park system would be the creation of trail networks that would link the parks together. The Township should consider the following:
 - Develop a "Greenways" program to define areas for open space preservation and for the development of a trail system which links the Township's natural and recreational resources.
 - Explore open space easements with property owners along trail corridors identified in the Greenways study.

-
- Cooperate with the Geauga Park District, private landowners, land trusts, government agencies, and others to create environmentally healthy connected open space in the Township.

7. Environmental Overlay:

- The Environmental Overlay District differs from the other Districts in that it is "overlaid" on top of other Districts.
- The District may require additional environmental standards to those contained in the underlying Districts, as supported by scientific studies.
- The District may be created in areas of the Township documented in scientific studies as environmentally sensitive, such as stream corridors, wetlands, steep slopes, areas of mature forest, or other valuable habitats.
- The District may impose setback, landscaping, and use restrictions, as supported by scientific studies. It also may provide encouragement and environmental information to property owners within the District.
- The objective is to encourage stewardship of the land and to help property owners preserve the environment.
- The Overlay District is intended to create a network of greenways for water quality preservation and conservation, pollution abatement, flood control, and wildlife habitat protection.

C. Government Facilities

Russell Township government facilities are spread out along the Route 306 corridor. The Township should develop a plan for government facilities to meet future needs. Ideally these facilities should be located in close proximity to the intersection of State Route 306 and State Route 87, the center of the community, and developed in keeping with the rural character of the Township.

D. Other Uses

1. Commercial recreation may be permitted in residential districts subject to appropriate regulations to protect the goals of this guide plan and to minimize adverse impacts on surrounding areas.
2. Schools and churches may be permitted in residential districts or the crossroads districts, subject to appropriate regulations to protect the goals of this guide plan and to minimize adverse impacts on surroundings uses.
3. Agricultural uses are permitted in all districts.

CHAPTER IX:

IMPLEMENTATION

A. Introduction

The Russell Township Land Use Guide Plan is intended to be a long range physical plan that reflects the environmental, social, and economic goals of the community. The Guide Plan gives residents and Township officials a vision of the future while providing recommendations and guidelines based on sound environmental principles.

Adoption of the Guide Plan by the Board of Trustees is just the first step in implementing a growth management strategy. It is the Zoning Resolution which establishes land use districts and sets development controls and standards. The zoning recommendations below are a guide for Township officials in preparing zoning amendments.

Basis for Comprehensive Planning and Zoning:

The Ohio Revised Code Section 519.02 provides:

"For the purpose of promoting the public health, safety, and morals, the board of township trustees may **in accordance with a comprehensive plan** regulate by resolution the location, height, bulk, number of stories, and size of buildings and other structures, including tents, cabins, and trailer coaches, percentages of lot areas which may be occupied, set back building lines, sizes of yards, courts, and other open spaces, the density of population, the uses of buildings and other structures including tents, cabins and trailer coaches, and the uses of land for trade, industry, residence, recreation or other purposes in the unincorporated territory of such township, **and for such purposes may divide all or any part of the township into districts or zones of such number, shape, and area as the board determines.** All such regulations shall be uniform for each class or kind of building or other structure or use throughout any district or zone, but the regulations in one district or zone may differ from those in other districts or zones." [Note: emphasis added]

B. Zoning Recommendations

Chapter VIII recommends that the Township be divided into six Development Districts. For the most part, these Development Districts correlate directly with an existing zoning district or districts.

Preliminary recommendations - final determination of zoning district amendments, as well as zoning district boundaries, would result from a formal and comprehensive zoning resolution update process.

Recommended Development District	Existing Zoning District
Rural Open Residential	R-5 - Residential
Rural Residential	R-3 - Residential
Crossroads Commercial and Services	CS - Commercial and Services
Crossroads Office Building	OB - Office Building
Active Park	APD - Active Park District
Passive Park	PPD - Passive Park District
Environmental Overlay	No Equivalent in Existing Zone

C. Action Steps Recommended:

1. Amend the Zoning Resolution and Map to reflect the recommended development districts and zones.
2. Continue environmental studies with the focus on river and stream corridors, wetlands, vegetative cover, and wildlife habitat, and create the environmental overlay district as supported and recommended by scientific studies.
3. Design and adopt a community environmental education and stewardship program.
4. Develop a government facilities plan.
5. Develop a cooperative plan to create and maintain connected open space.

Seven Characteristics of Highly Effective Development Codes¹¹

When revising the Township's Zoning Resolution it is a good idea to follow the example of other effective zoning and land use codes in effect across the country. The following is a list of seven characteristics common to the most effective codes.

1. An effective code is based on a comprehensive plan; with objectives and goals well defined.

2. It is well organized and customer friendly.

- Definitions are simple and consistent and do not contain substantive requirements.
- Clear submittal requirements are set forth graphically in an appendix.
- A table of contents, section locators, and index are provided.
- A consistent format is used throughout.

3. Its procedures are efficient and easily understood.

- The number of distinct review processes are kept to a minimum.
- Standard review processes are depicted graphically.
- The responsibility of each entity is made clear.
- Adequate notice and hearing requirements are established.
- Reasons are given for decisions based on substantive standards.

4. Its substantive standards are clear, consistent, and illustrated where appropriate.

- Standards are consolidated, where possible, in one location in the document (e.g., landscaping, environmental performance standards, buffering requirements).
- Conditional uses (and accompanying discretion) are kept to a minimum.
- Quantitative standards are summarized in tables.
- While precise, standards still allow room for creativity and flexibility.

5. Citizen input is secured in a timely, effective fashion.

6. Enforcement and administration provisions are realistic.

- Variances and piecemeal amendments are avoided to maximum extent possible.
- An inspection and monitoring program is established.
- Zoning Board of Appeals and Commission are trained and educated regarding all new policies and procedures.

7. It is coordinated with other land-use ordinances and processes to avoid overlapping and inconsistent requirements.

¹¹ Clarion Associates, Inc., Denver, Colorado

GLOSSARY

This glossary is intended to clarify certain terms as they are used in this plan for the convenience of the reader. For the correct legal definition of terms used in zoning refer to the Russell Township Zoning Resolution.

Aquifer: a layer of porous earth or rock that serves as an underground reservoir for water. Like surface streams, water in the aquifer flows underground from the source, which may be a wetland, river or lake, to discharge points - either wells, swamps, rivers, springs, or lakes.

Aquifer Discharge: the flow of water out of an aquifer to a spring, river, lake, or well.

Aquifer Recharge: the flow of water into an aquifer by way of wetlands, rivers, or lakes.

Building Lot: a contiguous area of land in one ownership upon which a building or structure may be erected in accordance with the Township Zoning Resolution.

Common Open Space: land within or related to a development, not individually owned or dedicated for public use but generally owned and maintained by a homeowners association, that is designed and intended for the common use or enjoyment of the residents of the development and their guests, and may include such complementary structures and improvements as are necessary and appropriate.

Consultants/Consultant Team: see "Professional Planning Team".

Data: consists of facts and figures gathered from direct research and observation such as the statistical information generated by the Township Land Use Survey, as well as information gathered from secondary sources such as the National Census, and reports and maps prepared by various organizations such as the Township, Geauga and Cuyahoga counties, Ohio Department of Transportation (ODOT), the Northeast Ohio Areawide Coordinating Agency (NOACA), and the Greater Cleveland Regional Transit Authority (RTA). Data also consists of information gathered through interviews and focus group sessions with citizens and interest groups.

Density: the measure of the number of dwelling units permitted per net acre of land area.

Developer: the legal or beneficial owner or owners of a lot or of any land included in a proposed development.

Development: the division of a parcel of land into two (2) or more parcels or lots; the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any building; any change in use of any buildings or land; or any clearing, grading, or other movement of land for which Township permission may be required.

Development Districts: areas in the Township that share certain physical and natural characteristics such as soil permeability and existing development patterns. The combination of natural and development characteristics are used to create the boundaries for the Districts. The characteristics of the District, in turn, determine the types of land uses that may be permitted within that District.

Homeowners Association: an organization formed to manage the common open space and common facilities within a development that are not to be publicly maintained; membership in and financial support of such organization is mandatory for all owners of property in the development.

Hydric Inclusions: reservoirs in normally dry underground rock layers which contain water.

Hydric Soils: soils containing water for a significant portion of the year.

Hydrophytic Vegetation: any plant that can grow only in water or very wet soil.

Impervious Coverage: that portion of a lot that is covered by buildings or structures, or by surfaces such as paving and driveways that prevent the absorption of stormwater into the ground.

Institutional/Civic Use: a nonprofit, religious, or public use such as a church, library, museum, public or private school, hospital, or government owned or operated building, structure, or land used for public purpose.

Land Use: the activity or activities for which a lot or property and the buildings or structures on it are devoted.

Land Use Categories:

- Residential
- Commercial
- Municipal/Religious
- Open Space
- Orchard/Farm

Land Use Districts:

Rural Open Residential	(5-acre underlying zoning)
Rural Residential	(3-acre underlying zoning)
Crossroads Commercial and Services	(Commercial uses and services)
Crossroads Office Building	(Office buildings)
Active Park	
Passive Park	
Environmental Overlay	(Provides a range of environmental incentives, educational opportunities and requirements. To be applied over and above the underlying district)

Landscaping: the man-made combination of lawns, trees, plants, and other natural materials, such as rock and wood chips, and decorative features, including sculpture, patterned walks, fountains, and pools.

Lot: an area of contiguous land surface that abuts the street, whose ownership and legal description are on record in the office of the County Recorder of Deeds, and that is to be separately owned, used, developed, or built upon.

Lot Area: the area of the total surface of a lot expressed in acres or square feet, based on deed description or registered surveyor's survey, excluding any street rights-of-way. One acre equals 43,560 square feet.

Lot Line: any of the lines describing the perimeter of a lot.

Natural Carrying Capacity: the ability of a property to support a certain level of development - measured primarily by its well water recharge capacity and the availability of two approved alternative septic field locations.

NOACA: Northeast Ohio Areawide Coordinating Agency

Nonhydric Soils: soils which tend to dry out during moderately dry weather.

ODOT: Ohio Department of Transportation

Open Space: any parcel or area of land or an area of water designed and intended for recreation, resource protection, amenity, and/or buffers. Open space shall not include areas set aside for public facilities, driveways, parking lots, or other surfaces intended or designed for vehicular travel.

Overlay Zone: a zoning district that encompasses one or more underlying zones and that imposes additional or alternative requirements to that required by the underlying zone.

Parking, shared: joint use of a parking lot or area for more than one use or by more than one property owner.

Professional Planning Team (Consultants): included the following consultants: UDA Architects - lead planning consultant, Clarion Associates and Thrasher, Dinsmore & Dolan - planning law consultants, Dr. Yoram Eckstein and ACRT Inc. - environmental consultants.

Recreation, active: leisure-time activities, usually of a formal nature, often performed with others, and taking place at prescribed places, sites, or fields.

Recreation, passive: leisure-time activities, such as hiking and observation of nature, and not typically requiring prescribed places, sites, courts, or fields.

Riparian Corridor: wildlife habitat formed by forests or other natural vegetation along the banks of a river, a lake, etc.

Road Classifications:

Thoroughfares, also referred to as arterial roads, are roads which are designed for through traffic movement. They typically carry heavy traffic volumes. A secondary function is to provide access to abutting properties.

Feeders, also known as collector roads, are roads which are designed for through traffic movement as well as for intercepting traffic from intersecting local roads and directing traffic movement to the

nearest arterial road. They typically carry medium traffic volumes. A secondary function is to provide access to abutting properties.

Local Roads are roads which are designed to provide direct access to abutting properties and to serve local Township needs. They typically carry light traffic volumes.

RTA: Greater Cleveland Regional Transit Authority

Runoff: the direction of stormwater flow from impervious cover to a stream or river.

Runon: the flow of stormwater from impervious cover to pervious cover so that it tends to soak into the ground rather than running off into streams or rivers.

Setback: the minimum or maximum distance a building or structure must be situated from an adjacent lot line.

Setback line: an imaginary line within a lot describing the limits within which building construction can occur, or any part of such line, as established by the front, side, and rear yards depths for each zone district.

Watershed: the region drained by one river system.

Wetlands: an area that is inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

X-ray Drawing: an analysis drawing that focused on a particular physical aspect of the Township such as: land use patterns, zoning, roads, streams, topography, environmental features, etc.

Zoning District: a contiguous area of land on all parts of which the same uniform opportunities for development apply.

Zoning Map: the official plan of zoning districts. A component of the Township Zoning Resolution.

APPENDICES

This plan consists of the information and recommendations that are contained in this document, together with the following appendices which have been adopted by Russell Township and are kept on file in the Township offices. These appendices include the following documents:

- 1."Russell Toward the Future: Guide Plan 1995", Stephen A. Estrin, Inc., 1975.
- 2."Hydrogeologic Parameters for Zoning in Russell Township, Geauga County, Ohio", Dr. Yoram Eckstein, 1986.
- 3."Geohydrology, Ground-Water Quality, and Simulated Ground-Water Flow, Geauga County, Ohio", U.S. Geological Survey, 1990.
- 4."Ground-Water Levels and Directions of Flow in Geauga County, Ohio, September 1994, and Changes in Ground-Water Levels, 1986-94", U.S. Geological Survey, 1995.
- 5."Summary of Focus Groups for Land Use Guide Plan Update", Joanne Wanstreet, 1994.
- 6."Report to Russell Township: The 1994 Land Use Survey", The Strategy Team, 1995.
- 7."Review and Evaluation of Environmental Data, Russell Township, Geauga County, Ohio", ACRT, Inc., 1996.

ADDENDUM

The following report was added as an addendum to the updated Land Use Guide Plan, entitled "*Russell Township Comprehensive Land Use Guide Plan: 2015*" by motion of the Russell Township Board of Trustees on February 16, 2000:

"The Changing Agricultural Community in Geauga County, Ohio 1990-1997,"
Ohio State University Extension Geauga County Office, dated December 22,
1997

Certified by Diana Steffen, Secretary to Russell Zoning Commission
3/13/00

ADDENDUM

The following two reports were added as an addendum to the updated Land Use Guide Plan, entitled "*Russell Township Comprehensive Land Use Guide Plan: 2015*" by motion of the Russell Township Board of Trustees on July 19, 2006:

"Commercial Districts & Public Facilities Planning Study," Northstar Planning & Design, Inc., dated 5 June 2001

"Music Street Commercial Area," Northstar Planning & Design, LLC, dated 12 January 2006

Certified by Diana Steffen, Secretary to Russell Zoning Commission
12/15/06

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