

2005 Cold Spring Comprehensive Plan

September 2005



Prepared by the
Northern Kentucky Area Planning Commission

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City of Cold Spring

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CHAPTER I

BACKGROUND INFORMATION

BACKGROUND

In 1972, after five years of detailed research and study, contacting public officials, organizations, agencies, and various special interest groups, and holding public hearings, the Northern Kentucky Area Planning Commission (NKAPC) completed and adopted the first comprehensive plan to guide development within Campbell and Kenton Counties. That plan was entitled *Northern Kentucky's Future, A Comprehensive Plan For Development 1972 - 1990*.

In 1981, the NKAPC prepared and adopted an update of the comprehensive plan entitled *Northern Kentucky's Future, A Comprehensive Plan For Development: An Update 1980-2000*. This plan, with some modifications, was adopted by the NKAPC as it pertains to the City of Cold Spring. In 1982, the Cold Spring Planning and Zoning Commission adopted this plan as it pertains to their area of jurisdiction, with slight modifications. In 1984, Campbell County withdrew from the Northern Kentucky Area Planning Commission. The Cold Spring Planning and Zoning Commission operated under the 1981 plan until the preparation and adoption of an update in 1987.

In 1992, Cold Spring City Council contracted with the Northern Kentucky Area Planning Commission to provide planning services for the city. The initial task undertaken was to work with an Ad Hoc Committee reviewing land use recommendations of the 1987 Comprehensive Plan as they pertained to areas recently annexed into the city. On August 12, 1992 The Cold Spring Planning and Zoning Commission adopted a revised land use plan map for the annexed area.

In late spring 1999, the City of Cold Spring began a citizen driven Community Visioning Process authorized and set up by a Mayor-City Council resolution. City Council hired Menelaos Triantafillou and Associates as a consultant to prepare the Community Vision report. City Council appointed a representative group of (18) eighteen persons to the Cold Spring Advisory Committee and charged them to work with the consultant and the community at large to prepare the "Vision 2000 Initiative". The Advisory Committee and the consultant held several town meetings culminating in the report entitled *Vision 2000 Initiative*. The results of this report were presented to the Cold Spring Planning and Zoning Commission on October 13, 1999. On October 19, 1999, Cold Spring City Council took action to accept the Vision 2000 Initiative as the ideas, preferences, and vision of the citizens of Cold Spring.

The 1995 and 2000 Comprehensive Plans were prepared by the Cold Spring Planning and Zoning Commission and the NKAPC for the entire City of Cold Spring. Work began on the 2005 Comprehensive Plan update in February 2004.

STATUTORY REQUIREMENT

The comprehensive planning process is one of the basic requirements which must be fulfilled by the Cold Spring Planning and Zoning Commission, as defined by Chapter 100 of the Kentucky Revised Statutes (KRS). This update, the original 1972 Comprehensive Plan, and the 1981, 1987, and 1995 and 2000 Comprehensive Plans, have all been structured to meet the statutory requirements for local planning units under Chapter 100 of the Kentucky Revised Statutes. This update fulfills the specific requirements of KRS Chapter 100.197, which calls for the research and all elements of the comprehensive plan to be reviewed, and amended, if necessary, at least once every five years.

GENERALITY OF COMPREHENSIVE PLAN

The contents of the comprehensive plan are intended to serve as a guide for public and private actions and decisions to assure development of public and private property in the most appropriate relationships. The land use plan element is not intended to provide precise boundaries between proposed land uses. Rather, it is designed to provide land use recommendations for general areas. Additionally, various areas may be suitable for more than one type of land use. The question/evaluation of whether a given land use might be appropriate for a given area must be viewed considering the comprehensive plan as a whole, including the goals and objectives, development concepts, other elements (i.e., land use, transportation, community facilities), and other regulations which are determined to serve the purposes of the comprehensive plan.

JURISDICTIONAL BOUNDARIES

The 1972 Comprehensive Plan and the 1981 Update were prepared as a single area effort, not as a series of comprehensive plans for each political jurisdiction. Due to the withdrawal of Campbell County from the NKAPC, it is necessary for the Cold Spring Planning and Zoning Commission to prepare their own comprehensive plan updates. Although detailed analysis and planning will be prepared only for the City of Cold Spring, activities and known planning efforts within the other cities in Campbell County and in Unincorporated Campbell County have been considered in the update process. The specific jurisdictional boundary for this plan is the current jurisdictional boundary of the City of Cold Spring.

METHOD

The method used to update the comprehensive plan consisted primarily of evaluating existing conditions, changes that have occurred between 2000 and 2004, development plans proposed by the public and private sectors, and a general re-evaluation of previous plan recommendations. The 1995 and 2000 Comprehensive Plans were evaluated to determine if projections and anticipated events were occurring as expected (e.g., population growth, school enrollment, extension of water and sewer facilities, etc.).

The planning process to update the 2005 Comprehensive Plan consisted of the following steps:

1. Establishment of a Steering Committee comprised of three members of the Planning and Zoning Commission and three members from City Council. Throughout Summer 2004, the Steering Committee invited a number of public agencies and groups to attend and provide new information which were pertinent to the City and the Comprehensive Plan update process.
2. The Steering Committee evaluated the statement of Goals and Objectives, which served as the framework for the 2000 Cold Spring Comprehensive Plan. In doing so, the Committee discussed the *Vision 2000 Initiative* report and its relationship to the overall Comprehensive Plan. In preparing a revised statement of Goals and Objectives for the 2005 Comprehensive Plan, the Goals and Objectives of the 2000 Comprehensive Plan and the *Vision 2000 Initiatives* were updated and blended into a single Statement of Goals and Objectives.
3. On January 26, 2005, a public meeting was held to gather public input at the beginning of the plan update process. This public meeting utilized a focus group format where each citizen was given an opportunity to provide comments on the future of Cold Spring. The results of the public input and subsequent discussion with the Steering Committee resulted in some minor changes being made to the proposed Goals and Objectives. Most of these changes were made in an effort to provide necessary clarification or elaboration of ideas, and to remove or clarify upon outdated and redundant statements.
4. On February 9, 2005, the Cold Spring Planning and Zoning Commission, after holding a public hearing as required under Kentucky Revised Statute (KRS) Chapter 100, adopted the revised Goals and Objectives. Subsequently, on March 28, 2004 Cold Spring City Council adopted Ordinance Number 05-856 officially adopting the Goals and Objectives element, as required by KRS 100.193.
5. Several meetings were held in which the Planning Commission and NKAPC staff discussed issues and reviewed information on transportation, development concepts, community facilities, water and sewer service and facilities, and land use. These meetings culminated in the preparation of proposed future land use plan, transportation plan, community facilities plan, and the other plan elements.
6. On August 11, 2005, the Planning Commission held a public meeting at the Cold Spring City Building to gather public input regarding recommendations made to date. This public meeting utilized an open house format where citizens could arrive anywhere between 6:00 pm and 8:00 pm. Staff was on hand to provide background information, answer questions, and to take notes.
7. The public hearing, required per KRS 100.197, was held on September 14, 2005 at the Cold Spring City Building. Following that public hearing, the Cold Spring Planning and Zoning Commission adopted the 2005 Cold Spring Comprehensive Plan.

CHAPTER II

GOALS AND OBJECTIVES

GENERAL

The Goals and Objectives Element of the Comprehensive Plan (one of the four statutorily required elements of the Comprehensive Plan) continues to be a fundamental part of the comprehensive planning process, identifying the overall ends toward which the planning effort is to be directed. Chapter 100 of the Kentucky Revised Statutes requires a Statement of Goals and Objectives, which ". . . shall serve as a guide for the physical development and economic and social well - being of the planning unit." These statutes also require that:

"The planning commission of each planning unit shall prepare and adopt the statement of goals and objectives to act as a guide for the preparation of the remaining elements and the aids to implementing the plans. The statement shall be presented for consideration, amendment and adoption by the legislative bodies and fiscal courts in the planning unit. . .". ". . . If the goals and objectives statement is not proposed to be amended, it shall not be necessary to submit it to the legislative bodies and fiscal courts for action. . .".

The Goals and Objectives, utilized in development of the adopted 1981 Comprehensive Plan Update, were adopted by the NKAPC, and all legislative bodies in Kenton and Campbell Counties. In 1987 and 1993, the Cold Spring Planning Commission and the City Council of Cold Spring adopted revised goals and objectives as part of the 1987 and 1995 Comprehensive Plan updates.

In late spring 1999, the City of Cold Spring began a citizen driven Community Visioning Process authorized and set up by a Mayor - City Council resolution. City Council hired Menelaos Triantafillou and Associates as a consultant to prepare the Community Vision report. City Council appointed a representative group of eighteen (18) persons to the Cold Spring Advisory Committee and charged them to work with the consultant and the community at large to prepare the *Vision 2000 Initiative*. The Advisory Committee and the consultant held several town meetings culminating in the report entitled *Vision 2000 Initiative*. The results of this report were presented to the Cold Spring Planning and Zoning Commission on October 13, 1999. On October 19, 1999, Cold Spring City Council took action to accept the *Vision 2000 Initiative* as the ideas, preferences, and visions of the citizens of Cold Spring.

The Planning Commission evaluated the Statement of Goals and Objectives which served as the framework for the 1995 Cold Spring Comprehensive Plan Update and the initiatives contained within the *Vision 2000 Initiative* report. A revised set of goals and objectives was developed by the Planning Commission based on a comparison of these two documents and on new information/ideas.

In Summer 2004, the Planning Commission appointed an ad hoc Steering Committee to begin working on the 2005 update of the Cold Spring Comprehensive Plan. The Committee was made up of representatives from Cold Spring Planning and Zoning Commission and City Council. The Steering Committee invited a number of public agencies and groups to attend and provide new information which were pertinent to the city and the Comprehensive Plan update.

Based on the outcome of these meetings and through discussions with the Committee, the Statement of Goals and Objectives was again evaluated. During this time, the Committee again discussed the *Vision 2000 Initiatives* and its relationship to the overall Comprehensive Plan. This resulted in the 2000 Cold Spring Comprehensive Plan and the *Vision 2000 Initiatives* being updated and blended into a single Statement of Goals and Objectives.

The following Goals and Objectives were used as the bases upon which all other elements of this comprehensive plan were built. They articulate a big-picture view to guide short-term decisions and the implementation of long-term plans and programs. Along with the other elements of the comprehensive plan, the Goals and Objectives will continue to be used as the bases upon which all proposed comprehensive plan and zone change requests, and proposals for new subdivision development, shall be judged.

HOUSING - RESIDENTIAL DEVELOPMENT

GOALS

1. To provide safe and sanitary housing to all residents.

Effort should be made to eliminate dilapidated and unfit housing; rehabilitate declining housing; conserve the existing supply of sound housing; and, add new housing, as necessary.

2. To provide a variety of housing types and residential development to accommodate different needs and desires of the population.

Effort should be made to encourage a variety of residential densities and housing types to meet the needs and desires of a range of family sizes, age groups, and income levels and to ensure that equal opportunity in choice of housing by all elements of the population is provided.

3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Effort should be made to ensure that areas which are proposed to be developed for purely residential purposes are protected from the intrusion of incompatible land uses. Development of new urban residential areas should be promoted only where they can be reasonably and economically served with essential public services.

OBJECTIVES/POLICIES

1. Create opportunities which promote the redevelopment and rehabilitation of housing.
2. Promote and strengthen the stability and well being of the city's neighborhoods.
3. A mandatory housing code enforcement program along with voluntary housing maintenance on the part of the owner will result in the upkeep of existing older residential properties.
4. Through mandatory screening and zoning codes, the adverse impacts of new developments and land use changes upon residential properties will be minimized.
5. Planned development projects which utilize large parcels of land and integrate density and housing types, parks, and open space should be encouraged.
6. Encourage the development of cluster residential units resulting in minimum negative effects of the area's natural features, while establishing high quality residential environments.
7. To provide for the maximum choice of living environments, residential development should be evaluated primarily on the inter-relationship of density, impact on infrastructure, and innovative development design, with secondary consideration given to the type of dwelling unit.
8. Clustering of dwelling units on portions of an overall site is to be encouraged in order to preserve green space, scenic views, other identified significant site features, and land for public facilities or recreational spaces.
9. Residential developments should be designed in a manner which is compatible with the general housing character planned for the area, existing conditions of the site, and with adjoining areas which would be appropriate for interconnected access.
10. Where existing infrastructure, services, and community facilities are not adequate, developers should be encouraged to phase construction to ensure the provision of these items to support their developments.

TRANSPORTATION**GOALS**

1. To develop a sustainable transportation system, which facilitates the movement of traffic through the community, but makes this goal subordinate to other civic, economic, social, and environmental goals and initiatives.

2. To develop a transportation system which strives to reduce energy consumption and which provides convenient access to and from residential areas, employment centers, education and health care facilities, and centers providing goods and services.

Effort should be made to shorten travel trips by planning for the location of various land use types so that they minimize distances between major points of origin and destination both for energy consumption reduction and for convenience purposes. Such factors should be considered particularly when planning the relationship of major centers of activity and employment to residential areas.



There should also be an effort made to provide for the integration of transportation modes to satisfy the unique needs of various segments of the population, not only for the normal home to work, home to shopping, and home to school type trips, but also for the special needs of elderly persons, children, handicapped persons, low income level families, and others who are highly dependent on such varied transportation modes.

3. To develop a transportation system capable of moving people and goods throughout and beyond the area in the safest and most convenient manner.

Effort should be made to develop a transportation system based on anticipated travel movements of people and goods throughout the region. Effort should also be made to develop a balanced total transportation system which incorporates and integrates all transportation modes.

4. To achieve the goals of this element without unduly disrupting the goals of other elements.

Transportation facilities should be developed so as not to unnecessarily intrude into, or traverse through, other major areas of concentration. Such facilities should be developed so that they do not usurp a disproportionate share of critical urban land area; so that they do not encourage the escalation of urban sprawl; and so that any adverse effects on existing and proposed land use development along their corridors are minimized.

OBJECTIVES/POLICIES

1. Reduce the impact of U.S. 27/Alexandria Pike on the community by increasing options for safe pedestrian crossing, by installing islands to facilitate crossing, and by undertaking needed sidewalk and streetscape improvements.
2. Strive to reduce the influence of U.S. 27/Alexandria Pike on separating the community into two east and west areas and increase east - west mobility.

3. Based on established priorities and availability of funding, the city will incorporate street improvements, both curative and preventative, to maximize the utilization of the roadway system.
4. All street improvements will be evaluated to determine their impact on surrounding developments.
5. The city should promote alternative means of transportation to create increased mobility to residents.
6. Design and construction standards created to ensure the longevity of the street system will be developed and enforced by the city.
7. The city should cooperate with and promote public transportation activities within the community.
8. The city should explore innovative construction techniques able to lower the cost of street improvements and implement accordingly.
9. Pedestrian and bike paths will access parks and recreation facilities, schools, and businesses.
10. Excessive curb cuts and driveway access points will be minimized by the establishment of a curb-cut/access management plan.
11. A comprehensive landscape program for U.S. 27/Alexandria Pike which includes uniform street planting, building and parking setbacks, buffer areas, and screening through the use of topography, trees, shrubbery and ground cover will be established by the city.
12. Establish a coordinated parking plan for the Community Services Area.
13. The Parking Plan will include the establishment of community parking facilities throughout the business areas.
14. Interior street systems of new or redeveloped areas should ensure continuity with adjacent built or planned areas. Developments should be encouraged to provide interconnections with adjacent developments to establish a street network.
15. Provide improved access to the Town Center and adjacent areas for existing and future potential development, including automobile, pedestrian and bicycle access.
16. Coordinate the maintenance and repair of utilities with local public works to facilitate joint activities and reduced costs.
17. Provide access to Murnan from the AA Highway.

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18. Improve Pooles Creek Road to provide increased capacity and safety.
 19. Improve Dry Creek Road and East Alexandria Pike to improve access throughout the community.
 20. Provide a connection between the AA Highway near Rockyview to East Alexandria Pike near the Cabin Creek development.
 21. Provide for the realignment of East Alexandria Pike to Murnan and Dry Creek Road.
 22. Connect the Granite Springs development to U.S. 27/Alexandria Pike in the vicinity of East Alexandria Pike.
 23. Connect the Granite Springs development to Pooles Creek Road.

RECREATION AND OPEN SPACE

GOALS

1. To provide an adequate amount and variety of recreational opportunities to satisfy the full range of needs of the population.

Concerted effort should be made to provide a wide variety of types of recreational facilities and programs to meet the year round desires and needs of various age and interest groups.

2. To provide basic recreation and open space facilities and programs which are conveniently located and accessible to the population.

Effort should be made to provide for recreation and open space facilities which are region oriented, containing a variety of active and passive recreation pursuits, and neighborhood oriented, which are primarily aimed at satisfying the day-to-day desires and needs of immediately surrounding residents.



3. To achieve the goals of this element without unduly disrupting the goals of other elements.

Effort should be made to ensure the incorporation of design for recreation and open spaces as an integral part of emerging urban development or redevelopment. Such effort should result in recreation and open space areas which complement and enhance

surrounding development rather than take on the appearance of appendages added out of necessity. Constant effort should be made to protect recreational areas from intrusion of other types of uses so that they may continue to serve their intended function adequately.

OBJECTIVES/POLICIES

1. Establish an approach for park land acquisition and facility expansion which is cost effective and comprehensive.
2. Establish park land in close proximity to neighborhoods.
3. The city will should encourage that portions of new developments be allocated to recreation and/or open space.
4. Participate in the development of parks and recreational facilities in conjunction with other governmental units.
5. Incorporate, where possible, school property and public recreational facilities and park land/open space.
6. Protect residential areas from nuisances caused by surrounding land uses through the use of buffers and greenbelts between residential and non-residential developments.
7. To control the alterations to the land which feature: steep slopes, creeks and stream beds.
8. To develop a community Town Center comprising educational, recreational and cultural activities.

LAND USE AND DEVELOPMENT

GOALS

1. To make future land use development predictable and specific with respect to location, land use type, and character.
The future development of the city needs to be predictable by its residents and officials in order to make proactive decisions for anticipated and desired results. This, in turn, will establish a more trusting and collaborative relationship between City officials, developers, and residents.
2. To promote a well organized land use development pattern and to discourage piecemeal land use development.
3. To attract new growth and development and retain the small town character.
4. Promote the character and economic stability of the community by preserving existing defined residential areas and planning for new residential uses, by planning for the

maintenance, revitalization and appropriate expansion of new commercial and office uses, and by planning for the addition of specified light industrial uses.

5. To manage and coordinate the development and redevelopment of existing and future commercial uses along U.S. 27/Alexandria Pike so that it does not perpetuate and prevent the establishment of a commercial strip character, and helps establish and maintain viable businesses.

OBJECTIVES/POLICIES

1. Consider the approval of proposed future developments when it is found and substantiated that: (a) Adjacent residential neighborhoods will not be negatively affected; (b) It is the result of effective planning and design; (c) It is in accordance with the Comprehensive Plan, and other specific plans; (d) It is reflecting current trends and changes at the community and regional levels; and (e) It does not adversely change the city's character and sense of place.
2. Through land use controls, provide for and maintain a vital and compatible land use mix which allows for: (a) an attractive and safe residential environment; (b) a strong local economic base through the extended and defined use of light industrial, commercial and office developments; and (c) allows a balance between public revenues and expenditures.
3. Promote a varied but controlled land use mix by rezoning to less restrictive classifications areas which may be approved when found to be: (a) consistent with the city's adopted land use and development policies; (b) consistent with the purposes of the zoning code; and (c) compatible with the short and long term land use patterns established by the Comprehensive Plan.
4. Through the use of design standards, ensure that development proposals are compatible with adjacent residential land uses and the natural environment.
5. Create a business focus in the community by: (a) supporting controlled mixed-use development; (b) increasing parking opportunities; and (c) promoting the attraction of new businesses, the retention of successful existing businesses and the expansion of further development through the formulation of a private business and public representative decision-making group.
6. Establish design controls which set forth standards pertaining to signage, landscaping, facade treatment, height, and density specifications.
7. Compact, efficient development patterns should be encouraged for business and other district with appropriately sized and well maintained buffer spaces.
8. Commercial uses should be limited to strategic locations serving trade areas and neighborhood needs and should have safe and effective access to the arterial and regional transportation system.

9. The large scale mixing of commercial and non-commercial uses should occur in planned developments or in areas where consideration has been given to assure compatibility with surrounding land uses. The location of large scale mixed use developments should take into consideration existing or planned infrastructure conditions.
10. Small scale mixing of commercial uses adjacent to residential areas should be carefully assessed and properly placed so as to enhance the neighborhood.
11. Establish a Town Center for the community where civic, cultural, recreational and public uses are integrated with quality public amenities to create a viable and pedestrian friendly environment unique to the City of Cold Spring.
12. To identify and establish the most appropriate use for undeveloped properties currently zoned in the Rural Residential (R-RE) district.
13. Identify and set aside the necessary land for implementing the Town Center.
14. Identify areas to support NKU's Technology Commercialization Triangle, with an emphasis on technology-oriented business development.
15. Within areas identified for technology-oriented business, take advantage of telecommunications infrastructure and make it available as a means of attracting technology-oriented uses and educational facilities.
16. Re-evaluate the SDA district to offer more flexibility in building form and architectural details, while requiring improved planning and design to ensure effective accessibility, signage, and landscaping.

ECONOMIC DEVELOPMENT

GOALS

1. To provide for a stable and diversified employment capability.

Effort should be made to provide a variety of employment opportunities oriented to various segments of the labor force and the skills they exhibit, so as to minimize unemployment levels. Effort should be made to determine and attract those types of industrial and commercial activities which, according to the most recent economic studies, appear to have the greatest potential for success in this region and are least susceptible to fluctuations in the economy.

2. To provide for an adequate amount of well located industrial development to increase the tax base and to meet anticipated industrial employment needs.

Effort should be made to locate areas planned for industrial development so as to shorten the work trip from the living areas of the resident labor force and reduce energy

consumption. Anticipated industrial employment should be used as a guide in measuring the amount of land which should be allocated for future industrial development. Areas which exhibit particularly desirable characteristics for industrial development should be identified, planned, and regulated for such use.

3. To ensure that the amount and location of facilities providing goods and services is based on need and market competitiveness.

Effort should be made to determine the amount and location of facilities providing goods and services, primarily on the basis of what can be supported. Inherent in this objective is the constant need to discourage over-development or premature development of facilities providing goods and services, which are not based on sound findings of need.

4. To locate and design centers providing goods and services so as to maximize consumer safety and convenience while minimizing any adverse environmental effects.

Centers providing goods and services should be conveniently accessible to the population. Different types of centers should be provided which serve the unique needs and desires of different types of consumers -- examples are as follows: centers oriented to serving immediately surrounding residents with daily convenience needs, centers intended to serve the transient public, major commercial centers offering both convenience and comparison goods and services to customers from a large service area. In all cases, design of new or redeveloped facilities, providing goods and services, should contain adequate off-street parking facilities, reasonable control of ingress and egress, landscaping, reasonable separation of vehicular and pedestrian traffic, etc. Such centers should be located and designed so as to minimize any adverse environmental effects.

5. To ensure the proper development of strategies for the economic and physical growth of the Cold Spring business and residential community, to be partially implemented by the fostering of a public and private development partnership responsive to the economic needs of the city.
6. While maintaining the residential character of Cold Spring, develop and encourage opportunities for business retention, expansion, land development, and light industrial and research development.

7. To promote and protect the area including the City Hall and parks as the city's Civic Center and ensure that the necessary public funds will be available for its maintenance and expansion to meet current and future community needs.

8. To achieve the goals of this element without unduly disrupting the goals of other elements.



Effort should be made to ensure that industrial areas are afforded the same measure of protection against the intrusion of incompatible land uses provided to other land use types. Conversely, significant effort should be made to ensure protection to areas surrounding employment centers. Elimination of undesirable emission or intrusions, which may result from the existence of industry, will be necessary in order to minimize any adverse environmental effects caused by such uses.

Effort should be made to ensure that centers providing goods and services are planned for and developed as an integral part of the total area's development. Such foresight should ensure that: their existence is enhanced, rather than disrupted, by major transportation facilities; they are reasonably located in relationship to other areas providing similar goods and services; adequate markets have been reasonably assured; and that the location and design of such centers will not result in a disrupting influence on surrounding development. Effort should also be made to ensure that areas providing goods and services are protected from the intrusion of incompatible land uses.

9. To protect and retain the local small businesses.

OBJECTIVES/POLICIES

1. Adopt a joint public/private economic development program and a capital improvements program aimed toward retention and extension of businesses.
2. Support existing and potential commercial development which offers improvements to the economic structure of Cold Spring while maintaining its character in a compatible relationship with the scale and character of the community.
3. Maintain a cooperative attitude toward the promotion of increased business activity, and potential light industrial and research development. The city will adhere to maintaining a positive dialogue with existing and future business and industrial development and encourage, through incentives, such business to locate in Cold Spring.
4. Provide light industrial and research sites through selective development of existing land and through annexation.
5. When it results in benefits to the entire community, the city will offer economic development incentives to developers, such as tax relief and revenue bonds.
6. Promote and ensure the economic viability by: (a) developing a clear set of economic development objectives; (b) assist in retaining existing businesses and in attracting new businesses; and (c) implement improvements and developments through a public and/or private funding program; d) implementing the recommendations of the Comprehensive Plan; and (e) support a countywide economic development program.

7. Develop industrial uses which are compatible with surrounding land uses in the following ways: (a) they relate to the capacity of the applicable transportation facilities and utilities; and (b) they minimize nuisances to the surrounding developments (land uses).
8. Use land use controls to ensure that the most appropriate land available is utilized for industrial uses.
9. Investigate the benefits and requirements for establishing a Tax Increment Finance program in the city and, if appropriate, establish a TIF District to fund the construction on improvements necessary for new land development.

UTILITIES

GOALS

1. To provide a dependable and adequate supply of all essential utility services to the population.

Effort should be made to ensure that areas of existing development, new development, and redevelopment are provided with all essential utility systems, and particular to ensure the simultaneous provision of a safe water supply and adequate centralized sewerage facility. Also, these systems should have the ability to serve existing and anticipated service needs. In this connection, adequate safety factors should be incorporated into the design of all essential utility services to ensure dependability of the systems under normal conditions and the existence of reasonable auxiliary or support systems during emergency situations.

2. To provide all essential utility services as economically as possible.

Effort should be made to ensure that essential utility services are provided in coordination with other plan goals so that uncoordinated and uneconomical development is not encouraged. In this regard, extension of utility systems can become one method of controlling the direction and timing of new development.

OBJECTIVES/POLICIES

1. Establish a program and strategy to address infrastructure needs, especially sanitary sewer service and land use development on the basis of phasing plan and implementation priorities.
2. Regional plans to improve utility systems will be supported through the efforts of the city.
3. Continue to enforce improved performance in water retention in an effort to manage storm water runoff.

4. Existing infrastructure and services should be utilized efficiently. The phasing of proposed development should be examined as a means of addressing significant impacts on existing infrastructure and services.
5. The elimination of overhead utility services should be encouraged.
6. Within areas recommended for technology-oriented business, ensure the provision and availability of utilities including water, sanitary sewer, and telecommunications infrastructure.
7. Establish priorities for development and make sure that the needed infrastructure will service proposed future land uses in a timely fashion.
8. Coordinate the maintenance and repair of utilities with local public works to facilitate joint activities and reduced costs.

COMMUNITY APPEARANCE AND VISUAL CHARACTER

GOALS

1. To protect and enhance the city's natural environment and improve and develop its man-made environment so that it is compatible with the existing conditions and future development.

OBJECTIVES/POLICIES

1. Adopt and enforce an appropriate maintenance code which provides programs for the maintenance of building exteriors, landscaping, grounds, and weed control.
2. Establish a tree planting, maintenance, and management program for public trees.
3. Encourage the preservation of existing trees by residents throughout the city.
4. Establish physical appearance guidelines and programs for the treatment of the entrances to the city.



REGIONAL COLLABORATION

GOALS

1. To promote regional collaboration with institutions, organizations, and agencies responsible for the provision of educational, health, and other services and facilities, to

ensure that the implementation of plans and programs is carried through with the city's involvement and without any adverse affects on the community.

PUBLIC SAFETY

GOALS

1. To provide an effective program of public safety to prevent, where possible, and minimize, when necessary, injury or damage to persons or property.

Effort should be made to provide appropriate levels of public safety services to the entire area. This is meant to be inclusive of, and primarily aimed at, the prevention aspects of public safety. Specific areas of concern, in this regard, are programs for fire and police protection, homeland security measures, flood protection programs, traffic safety programs, etc. This will require provision of adequate facilities, equipment, and personnel located on the basis of need, and not constricted by arbitrary jurisdictional boundaries or special interest considerations.

CULTURAL FACILITIES

GOALS

1. To provide for an adequate amount of well located cultural facilities to serve the basic needs of the population.

Effort should be made to provide for the establishment of programs and institutions which promote the cultural pursuits of all segments of society. In this connection, it would be necessary to provide for adequate, well located cultural facilities oriented primarily to serving local resident (e.g., churches, theaters, libraries).



2. To coordinate the provision and location of specialized types of cultural facilities in this area with facilities throughout the metropolitan region.

Constant effort should be made to coordinate the provision and location of specialized cultural facilities in order to avoid unnecessary duplication. An on-going effort should be made to promote coordinated and cooperative use of specialized region-serving cultural facilities wherever they may be located.

RESOURCES AND ENVIRONMENT

GOALS

1. To ensure the most efficient and reasonable utilization of the area's physical resources while ensuring that any short-term uses of man's environment will be to the long-range benefit of all.

Constant effort should be made to ensure wise utilization or conservation of the area's resources to maximize advantages, simultaneously minimizing any detrimental effects such utilization may cause. Such efforts would encompass a broad range of concerns such as identifying all environmentally sensitive areas and areas of critical concern; planning and scheduling of the use or non-use of such areas; and also determining the use of, and planning for the restoration of, any land areas which might be damaged due to some resource extraction or temporary use. It should also encompass an effort to preserve, conserve, and enhance unusual man-made projects or natural features, which have some unique historical, architectural, or natural value. Effort should also be made to identify and plan for the stabilization of those areas which might be best retained in their rural-like character promoting their value as agricultural resources and/or adequate land reserves for the future.

2. To provide a pleasant environment for the population.

Constant effort should be made to ensure that all areas are provided with adequate light and air and pleasing surroundings. This will require adequate control and monitoring of all potential contributors to all forms of pollution (air, water, visual, noise, etc.). Provision of sufficient open space in conjunction with all types of new development and redevelopment will also be necessary if this objective is to be achieved.

3. To ensure that planning adequately considers methods of reducing energy consumption and that adequate protection is afforded all energy resources.

Constant effort should be made to urge planning decisions which recognize the need to reduce energy consumption through realistic land use strategies and to recover energy resources, while protecting the environment and making such land reusable.

OBJECTIVES/POLICIES

1. New development or redevelopment should attempt to utilize existing topography and encourage preservation of the existing character of the land. Developments should be designed in harmony with the physical environment in such a way that each site's existing physical assets are used beneficially.
2. Physically restrictive development areas should be identified and mapped and minimum standards should be established for the preservation of these areas. Developments that

are proposed within these areas should be carefully reviewed according to these standards to assure that any negative environmental impacts are minimized.

HISTORIC PRESERVATION

GOALS

1. To identify, promote, preserve, and protect the historic resources in order to enhance the quality of life and the economic well being of the community.

Effort should be made to encourage the designation of historic structures, sites, and districts. An ongoing effort should be made to encourage the rehabilitation, maintenance, and preservation of historical assets. Historic preservation can provide revitalization, economic development, creation of jobs, and affordable housing. Effort should be made to achieve the goals of this element without unduly disrupting the goals of other elements.

OBJECTIVES/POLICIES

1. An inventory of historic, archeological, funerary, and natural resources should be maintained.
2. Significant sites which meet established criteria should be encouraged for nomination to the National Register of Historic Places.

GOVERNMENT

GOALS

1. To ensure that all necessary functions of government are performed in the most responsible manner possible.

Effort should be made to structure government and government activities to meet the immediate needs and long-term objectives of the population. Such structuring should involve and promote responsible community leadership, both in and out of government, which should be accessible and responsive to the public. Such structuring should also ensure the following: (1) enactment, and the equitable and expeditious administration of uniform laws; (2) removal of arbitrary jurisdictional barriers to permit essential public services to be efficiently and economically provided and to ensure that benefits gained and problems encountered anywhere in the area are shared equitably and solved cooperatively by the entire area; (3) achievement of fiscal responsibility, including adequate and equitable financing of services and facilities; (4) appointment of an adequate number of qualified administrative and service personnel to effectively conduct government business; (5) coordination of activities and operations of all government functions to achieve efficiency and avoid duplication; (6) capability to deal effectively with area-wide problems and coordinate activities with other major levels of government;

and, (7) realization of a greater capacity to achieve the basic goals and objectives as envisioned herein.

2. To ensure the continuous input and feedback from residents, business owners, and property owners.
3. To strengthen the city's administrative capability to implement the Comprehensive Plan by establishing an administrative officer position and fill it with a qualified individual.
4. Establish an on-going dialogue with local business owners regarding needs and concerns.

ANNEXATION

GOALS

1. To consider potential annexations on their individual merits with careful consideration towards the establishment of a balanced community pattern, and a balance between revenues and expenditures.
2. To pursue annexation as a logical extension of the city's boundaries and services system, when benefits are clearly defined and the community's character and economic base are not jeopardized.
3. To consider annexation of lands for future residential development, commercial uses, light industrial uses, utilities, and park land and open space.

OBJECTIVES/POLICIES

1. Establish and promote a selective annexation strategy and program which: (a) identifies priority annexation areas; (b) physically unifies the city's structure and patterns; (c) evaluates the cost of annexation on the existing community; and (d) establishes specific recommendations for the future land use of the annexed areas based on the Comprehensive Plan, the *Vision 2000 Initiative*, and other specific plans.
2. Establish a set of criteria to be used when considering potential annexations, capable of addressing land use, costs and benefits, potential adverse impacts, and other considerations.

CHAPTER III

ENVIRONMENTAL CHARACTERISTICS

GENERAL

This chapter summarizes those features used as predominant physical determinants in developing the recommended land use plan: (1) geologic features; (2) water quality; and (3) other selected natural resource features. Some headings included in the 2000 Cold Spring Comprehensive Plan are not revisited in this Plan, including: (1) depth to bedrock, (2) surface and subsurface geology, and (3) pipeline construction, however, when needed, these issues should be referred to in previous plan updates. New in this plan update are concepts, including watershed planning, water quality and urban forestry.

Recommendations for future land use are described in some detail in Chapter V. It will become evident at that time why the information included in this chapter is so important to the study.

PREDOMINANT PHYSICAL DETERMINANTS FOR LAND USE PLANNING

The 1972 area wide comprehensive plan, which included the City of Cold Spring, contains a series of plates and related text which describe selected features of engineering geology, in some detail. This study provides an overview of the features most commonly examined for land use planning purposes. The earlier work must be used in combination with this summary in order to gain a full understanding of the impact of physical features on future land use recommendations.

SELECTED FEATURES OF ENGINEERING GEOLOGY

Topography

Land areas between the 600 and 800 foot MSL (mean sea level) are generally found along steep slopes of the major river valleys and comprise the narrow, winding, V-shaped valleys extending in from the Ohio and Licking rivers. There are extensive areas in this elevation range in Campbell County which are the result of heavy erosion of the high plateau, some of which can be found in the Cold Spring area. A large amount of the developed and undeveloped land within the city are classified as Physically Restricted Development Areas (PRDA) which provide for very limited potential for intensive types of urban development. These limitations of the PRDA will be discussed in further detail in Chapter V - Land Use.

Topography has played a major role in the review of existing and future development patterns in Cold Spring. To date, most of the urban development has occurred on land with minimal slope. Areas of steeper slopes have been included within subdivisions, but are most often left undeveloped such as in the rear portions of deep lots or as "common open space".

More effective methods of earth moving, along with the pressure and necessity for more land to develop, has caused topographic limitations to be less of a deterrent in recent years. Use of severe slopes for urban development is already beginning to occur and will, undoubtedly, become a matter of even more concern in future years. To some degree, severe topographical conditions may be considered an asset, in that, they have resulted in a significant amount of "undevelopable" land area which can easily be retained in its natural state, providing "breaks" in the urban landscape.

Hillside Protection

Hillsides in Cold Spring provide part of the open space needs in the city while providing a valuable scenic resource for citizens and habitat for wildlife. However, when hillsides are disturbed as part of development, a number of negative outcomes can occur. The loss of vegetative cover on steep slopes during development can increase soil instability, the risk of erosion, and property damage. Soil erosion and sedimentation into waterways can increase the potential for flooding, reduce water quality, and pose several threats to public health and safety that are difficult and expensive to correct. It is necessary to minimize problems due to water runoff and soil erosion incurred in grading the landscape while preserving unique scenic resources and habitats. The rationale for protecting steep slopes in the city is therefore a matter of protecting public health and safety, property values, and environmental quality.

The loss of vegetative cover on steep slopes during development can increase soil instability, the risk of erosion, and property damage.

In the early part of 1991, the Hillside Trust published a report entitled, *A Hillside Protection Strategy For Greater Cincinnati*. This study covered areas within Kenton County, Kentucky and Hamilton County, Ohio. Participants in this study included the Hamilton County Regional Planning Commission, the Northern Kentucky Area Planning Commission, the University of Cincinnati, Kentucky Division of Soil Conservation, U.S. Soil Conservation Service, and the U.S. Forest Service. The study documents the critical need to protect the forested hillsides which, along with the rivers, provide much of our region's distinctive beauty. It outlines a broad strategy by which local governments can ensure both the visual and the geotechnical integrity of these beautiful and fragile hillsides.

Because of similarities in topography, soil types, and geologic formations, information in this study is also appropriate for the City of Cold Spring. This study provides an excellent reference, with suggested guidelines, which can be used to develop regulations for the protection and utilization of hillside areas in within the city.

Soils

The soils of the planning area have been the subject of reports prepared by the Soil Conservation Service (SCS) of the U.S. Department of Agriculture. These reports show the extent and abundance of the various soil types in the planning area and they delineate favorable and

unfavorable characteristics of each soil type.

Generally, the soils of the area are of three predominant types: alluvial; residual; and glacial. The characteristics of these types of soils are generally described in the earlier 1972 area wide comprehensive plan and the earlier SCS studies. Further detail, for purposes of construction, will be necessary in most cases, likely through necessity of an on site soils report.

Earth Stability

The movement of soil under loads is encountered in many areas throughout Campbell County. These movements range from the long term consolidation of silty soils to the relatively rapid flow or sliding of clay soils. Silty soils, particularly those found in the valley and vicinity of the Ohio and Licking Rivers, consolidate when loaded and settle. The overall abundance of potentially unstable soil conditions in the planning area is unknown. However, the existence of these types of soil conditions, when combined with the existence of the Kope rock formation (principally shale) and steep slopes, are usually indicative of very severe landslide potential.

WATER QUALITY

A Watershed Approach

Planning for Cold Spring should give consideration to its physical location within a watershed. A watershed is a land area which ultimately drains into a particular body of water. Watersheds collect water from rainfall and snowmelt, storing some of this precipitation in wetlands, soils, trees and other vegetation and underground in aquifers. The floodplains along the banks of the Ohio and Licking rivers serve as important storage sites for water. The natural storage sites help eliminate contaminants as suspended particles settle out and as water infiltrates into the soil where biological and chemical reactions break down impurities. This stored water eventually flows into streams, rivers and lakes during dry periods. Watersheds provide critical habitat for many plant and animal species. Watersheds provide water for drinking, cleaning, recreation, navigation, hydroelectric power and manufacturing.

A basin is a large-scale watershed covering an average of 2,525 square miles. The State of Kentucky contains twelve basins. Watersheds are smaller than basins, averaging 64 square miles in size. The City of Cold Spring is located across three major watersheds: the Licking and Ohio River watersheds and the Four-Mile Creek watershed, as seen on Map 1. Many other smaller watersheds, called sub-watersheds are located within this area including Owl Creek, Ripple Creek, Pooles Creek and Duck Creek.

Human activities, both on land and in water, have impacts on a watershed. The creation of buildings, parking lots and roads; the draining of wetlands; mining; deforestation; and agriculture can all affect the quality and quantity of water flowing over the land and through the soil.

Human activities, both on land and in water, have impacts on a watershed. The creation of buildings, parking lots and roads; the draining of wetlands; mining; deforestation; and agriculture can all affect the quality and quantity of water flowing over the land and through the soil.

Changes can alter watershed functions by eliminating critical water storage and by contributing

additional sediment and chemicals to runoff. Critical ecological habitat can also be eliminated by human activities.

Watershed information can aid in addressing issues of water quality and quantity, biodiversity, urban infrastructure and quality of life. Appropriate planning on a watershed basis includes assessment of not only the natural environment, but also the economic and social features of the watershed. Potential benefits from using this approach are reductions in storm water management costs, personal losses and insurance claims and improved water quality. It is recommended that the city utilize this watershed information as a natural focus area for further study. If necessary, these sub-watersheds may be broken up into smaller hydrologic units that will provide for an excellent starting point for land use evaluation.

Stormwater Runoff

Roads and related infrastructure, such as parking lots, comprise two-thirds of all paved surfaces. These hard surfaces are the primary source of stormwater runoff. Roads collect pollutants from motor vehicles and other sources, washing into rivers and streams contaminants such as used motor oil, grease, coolants and antifreeze, spilled gasoline, nutrients from vehicle exhaust, and sediment. These paved surfaces also contribute to flash flooding and prevent rainfall from soaking into the ground and recharging aquifers.

On August 1, 2003, Sanitation District No.1 initiated the Regional Storm Water Management Program - a hybrid program designed to maintain compliance with the Federal Phase II storm water regulations and prepare for the District to take over ownership and maintenance of the public storm sewer system. Currently, the cities and counties within the storm water service area own and maintain the public storm water systems, but the District plans to initiate a transfer of these assets by August 2008. Until then, localities such as the City of Cold Spring bear the brunt of responding to these stormwater impacts. However, while there are provisions that fund measures to control air pollution impacts from transportation (i.e. the Congestion Mitigation and Air Quality Improvement Program), there is no program to assist localities with the heavy cost of managing stormwater runoff and pollution caused by roads and highways.

URBAN FORESTRY

Urban forests are an integral part of cities, rural areas, streets, backyards, parks, and open spaces. Urban forests provide shade, beauty, and habitat for urban wildlife. Properly planted trees and other urban vegetation can reduce heating and cooling costs, intercept and store rainwater, improve air quality, and increase property values and local tax bases.



The loss of green space associated with development reduces these important functions. Using clustering techniques for residential developments with larger buffer zones and more open space, with tree preservation, and using natural existing drainage systems within development areas can reduce potential negative effects on air and water quality. It is also important to preserve the existing vegetation on construction sites, where it helps to control the stability of the site and

protect against erosion during and after development. Consideration should also be given to avoiding damage to tree roots on properties adjoining construction sites. Tree planting along roadways, such as the project which was carried out to restore trees along US 27/Alexandria Pike, has been an asset to the city. Lastly, it is recommended that the city continue their efforts to encourage tree preservation and revegetation of landscapes as part of the development approval process.

ENVIRONMENTALLY SENSITIVE AREAS

A combination of many of the foregoing described characteristics may result in the identification of areas which could be considered environmentally sensitive. For example, lands which are underlain by geologically fragile formations and covered by somewhat unstable soil conditions would dictate that such lands are environmentally sensitive for developmental purposes; areas which are subject to periodic flooding would be considered environmentally sensitive; land areas characterized by steep slope conditions, unstable soil characteristics, etc. would also easily be classified as environmentally sensitive.

Lands with such characteristics should be protected from such intensive development or very stringently regulated as such development is considered. The comprehensive plan recognizes such areas by a land use designation described in Chapter V as "Physically Restrictive Development Areas"(PRDA).

CLIMATE

Climatological data concerning the Cincinnati Metropolitan Area was acquired from the U.S. Department of Commerce, Weather Bureau. Such information is of potential significance to individuals, businesses, and industrial interests in considering location in this area. Information concerning the climate of the Northern Kentucky Area is included in the earlier 1972 area wide comprehensive plan, however, if further detail is desired, the Weather Bureau should be consulted.

Generally, temperature of 90 degrees Fahrenheit (32.2 Celsius) or above occur on the average of 28 days each year. The summers are moderately warm with daily maximum temperatures, during June, July, and August, in the mid 80's (29.4 C). Temperatures range from an average daily minimum of 27.0 degrees Fahrenheit (2.8 C), in January, to an average daily maximum of 87.4 degrees Fahrenheit (30.8 C) in July. The Cincinnati Area experiences an average of approximately 39 inches of precipitation annually. The winters in this region are relatively mild with average winter temperatures of 38 degrees Fahrenheit (3.3 C).

AIR QUALITY

In 1990, Congress adopted the Clean Air Act Amendments (CAAA) to address the country's major air pollution problems. The CAAA regulates six major pollutants: sulfur dioxide, nitrogen dioxide, lead, carbon monoxide, particulate matter and ozone. The Greater Cincinnati region meets the national air quality standards for all six pollutants.

The CAAA 90 clarifies how Environmental Protection Agency (EPA) designates no attainment areas for three pollutants (ozone, carbon monoxide, and fine particulate matter) and how those areas are classified in accordance with the severity of the area's air pollution problem. Assignment of an area to one of the no attainment classifications triggers various planning requirements with which the area must comply in order to meet the standard. The requirements vary by pollutant and they increase in number and stringency with the severity of pollution. A seven-county area encompassing the Greater Cincinnati area was designated by EPA, pursuant to provisions of the CAAA 90, as a moderate no attainment area for ozone based on air quality measurements from 1988-1990. The no attainment area included Butler, Clermont, Hamilton, and Warren Counties in Southwest Ohio, and Boone, Campbell and Kenton Counties in Northern Kentucky. Areas with more serious problems are required to take more numerous and stringent actions, but have more time to do so than areas with less severe problems. Any area that fails to meet the standards by its deadline could be bumped into a more stringent classification with stricter compliance requirements.

On July 5, 2000, EPA determined that the region had attained the one-hour ozone standard based on three consecutive years without a violation of the standard. The region was redesignated to a maintenance area and must continue to monitor for exceedances of the one-hour ozone standard in order to ensure compliance. The ten-year maintenance plans submitted by both Ohio and Kentucky contain emissions budgets for volatile organic compounds (VOC) and oxides of nitrogen (NO_x). These budgets establish a maximum allowable limit on future emissions from vehicles (mobile sources). Through the conformity process, Ohio-Kentucky-Indiana Regional Council of Governments (OKI) transportation plans and programs must be shown not to exceed those established budgets.

In 1997, EPA completed its review of the national air quality standard for ozone and replaced the one-hour 0.12 parts per million standard with a new eight-hour average 0.08 parts per million standard. A violation of the eight-hour national air quality standard for ozone occurs when the three-year average of the annual fourth highest daily maximum eight-hour concentration exceeds 0.08 parts per million. All seven counties in the current maintenance area have been recommended for inclusion in a new zone no attainment area under the eight-hour standard. As of June 2001, EPA was reviewing procedures for implementing the eight-hour standard and a timetable for designating the new no attainment areas was uncertain.

In Northern Kentucky, the major cause of the previously mentioned air pollution is mobile emissions, the greater part of which comes from local traffic. While it is difficult to deal with mobile sources, there are ways in which they can be addressed, such as:

- **Public Transit**

The Transit Authority of Northern Kentucky (TANK) offers a "Downtown Connection" taking people from their homes in Northern Kentucky to jobs downtown as well as service to work sites in the southern areas of the Northern Kentucky region, with fast "reverse-commute" bus service. Express buses travel the expressway, providing more direct access to the Downtown Cincinnati Central Business District. TANK operates 27 routes, through 19 Park & Ride locations, 365 days a year.

- **Carpooling**
Recognizing that air pollution is a health issue as well as an environmental issue, the Northern Kentucky Independent Health District has also participated by adopting an objective of promoting carpooling through company involvement and promoting telecommunications and working at home to reduce the number of vehicle trips per day.
- **Alternative fuels**
Alternative fuels and alternatively fueled vehicles are now available on the market and have lower emissions than conventional gasoline. These vehicles use either alcohols, electricity, natural gas, or propane. TANK has also made use of bio-diesel in several of their buses.

Other options that would help to reduce air pollution in Cold Spring include:

1. Outreach and education to increase awareness;
2. Transportation and community planning to promote pedestrian and bicycling activities and to reduce the need for many or long vehicle trips; and
3. Gas cap testing and replacement programs.

REFERENCE TO FURTHER DETAIL

The foregoing information is very general in nature. Further detail concerning geologic and soils information is on file in the NKAPC offices. However, the type of detail necessary to determine construction, feasibility, availability of economic minerals, problem soils, and geologic strata, is only available with detailed on-site investigation.

SUMMARY OF MAJOR RECOMMENDATIONS

1. It is recommended that the city work with the county to identify areas for open space retention and passive recreation. This can assist the city to plan for a community-wide pedestrian and bikeway system. An open space inventory/analysis can identify characteristics such as watersheds, tree cover, and natural habitats, as well as evaluate areas based on their location, infrastructure, and other factors to determine what any given land is best suited for. Although hillsides are typically the most difficult areas to develop and, therefore, easier to preserve, other sensitive natural areas and characteristics are essential to the city and should be identified. The city should secure funding and retain professional services to initiate this type of study to examine the characteristics that influence development in the city, to identify lands for conservation and to determine the best uses for the land.
2. Update local zoning regulations to encourage the retention of open space and hillside protection within the development review and approval process. Encourage techniques such as cluster or conservation development whereby development is clustered to conserve natural features and allow for more open space protection.

3. The City of Cold Spring has an important role to play to help prevent and reduce water quality problems associated with runoff. Some initiatives that can be carried out by the city include:
- Coordinate development review and approval in with Sanitation District No.1 to help prevent and reduce watershed degradation and water quality problems. Maintain existing stormwater utilities with assistance from Sanitation District No. 1 on a cost-share basis.
 - Participate in a municipal staff education program, coordinated by Sanitation District No.1, in compliance with Phase II requirements;
 - Maintain existing stormwater utilities with financial assistance from Sanitation District No.1. The city can petition projects to be done in coordination with Sanitation District No.1 on a cost share basis. Health and safety related projects are covered at a 90-10 cost share rate and ongoing maintenance is covered on a 50-50 cost share basis;
 - Organize and assist in volunteer water quality monitoring and restoration projects through the Kentucky Watershed Watch by collecting data and learning more about the health of local streams;
 - Prepare and enforce an illicit discharges ordinance.

CHAPTER IV

POPULATION, HOUSING AND ECONOMIC CONDITIONS

GENERAL

The purpose of this chapter is to provide information about basic population, housing, and economic characteristics necessary for use in planning for the future. Information presented will describe Northern Kentucky, including Boone, Kenton, and Campbell Counties, with an emphasis on its affect to the City of Cold Spring.

POPULATION AND HOUSING

Campbell County, Kentucky is part of the Ohio-Kentucky-Indiana (OKI) region which also includes Kenton and Boone counties in Kentucky; Hamilton, Clermont, Butler and Warren counties in Ohio; and Dearborn County in Indiana. Table 4-1 is a comparison of population trends for the three Northern Kentucky counties from 1980 through 2000. The Northern Kentucky area increased from approximately 283,000 people in 1990 to approximately 326,000 people in 2000, an increase of 15 percent, as shown in Table 4-1. This figure indicates that Campbell and Kenton counties have each grown at a slower rate than Boone County. Boone County's rate of growth out paced the State, and was also by far, the fastest growing of the three counties (49 percent, and approximately 28,000 people from 1990 to 2000).

Campbell County grew more slowly from 1990 to 2000 than Kenton County (5.6 percent as compared to 6.6 percent for Kenton County). In 2000, Kenton County, at 151,464 persons, was the most populated county of the three, followed by Campbell County and then Boone County.

Table 4-2 reveals that the growth that occurred in Campbell County between 1990 and 2000, of 4,750 persons, was a result of an increase in births over deaths (5,942) rather than in-migration. In fact, out-migration resulted in a net loss of 1,192 persons. Kenton County's population increase was also due to the number of births over deaths (13,091), which compensated for out-migration of 3,658 persons. Only Boone County's population increase (28,402) was due to people moving into the county, an in-migration of 18,829 people.

Table 4-3 shows the number and rate of births and deaths per 1,000 people for Boone, Campbell and Kenton counties, between 1995 and 2000. The number and rate of births exceeded the number and rate of deaths for all three counties. Campbell County's overall birth rate, ranging from 14.0 to 15.4, was generally lower than the other two counties for all the years, while its death rate was also higher. Kenton County had the highest number of births.

Table 4-1
Population Trends
1980 - 2000

AREA	1980 CENSUS	1990 CENSUS	2000 CENSUS	CHANGE 1980 - 1990		CHANGE 1990 - 2000	
				NUMBER	PERCENT	NUMBER	PERCENT
Kentucky	3,660,777	3,686,892	4,041,769	26,115	0.71	354,877	9.63
Boone County	45,842	57,589	85,991	11,747	25.62	28,402	49.32
Campbell County	83,317	83,866	88,616	549	0.66	4,750	5.66
Kenton County	137,058	142,031	151,464	4,973	3.63	9,433	6.64
Tri-County Total	266,217	283,486	326,071	17,269	6.49	42,585	15.02
Cold Spring	2,117	2,866	3,806	749	35.38	940	32.80

Source: U.S. Bureau of the Census, 1980-2000 Decennial Censuses
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-2
Population Change – Migrational Trends
1980 - 2000

AREA	1980 POPULATION	1990 POPULATION	NET GAIN/LOSS 1980 -1990	BIRTHS 1980 -1990	DEATHS 1980 - 1990	NATURAL NET GAIN	NET MIGRATION
Boone County	45,842	57,589	11,747	8,813	3,264	5,549	6,198
Campbell County	83,317	83,866	549	13,492	8,705	4,787	-4,238
Kenton County	137,058	142,031	4,973	23,984	13,282	10,702	-5,729
Three County Total	266,217	283,486	17,269	46,289	25,251	21,038	-3,769
AREA	1990 POPULATION	2000 POPULATION	NET GAIN/LOSS 1990 -2000	BIRTHS 1990 -2000	DEATHS 1990 - 2000	NATURAL NET GAIN	NET MIGRATION
Boone County	57,589	85,991	28,402	13,864	4,291	9,573	18,829
Campbell County	83,866	88,616	4,750	14,071	8,129	5,942	-1,192
Kenton County	142,031	151,464	9,433	25,259	12,168	13,091	-3,658
Three County Total	283,486	326,071	42,585	53,194	24,588	28,606	13,979

Source: (1) U.S. Bureau of the Census, 1980-2000 Decennial Censuses

(2) Kentucky Cabinet for Health Services, DPH Data Warehouse, Vital Statistics Reports (1980-2000)

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-3
Population Change – Births and Deaths
1995 - 2000

AREA	YEAR	BIRTHS*		DEATHS	
		NUMBER	RATE/1000^	NUMBER	RATE/1000^
Boone County	1995	1,088	15.5	402	5.7
	1996	1,053	14.1	427	5.9
	1997	1,179	15.5	410	5.4
	1998	1,285	16.1	513	6.4
	1999	1,354	16.2	484	5.8
	2000	1,429	16.6	474	5.5
Campbell County	1995	1,236	14.2	849	9.7
	1996	1,228	14.1	823	9.4
	1997	1,325	15.2	810	9.3
	1998	1,311	15.0	821	9.4
	1999	1,340	15.4	845	9.7
	2000	1,241	14.0	777	8.8
Kenton County	1995	2,197	15.1	1,285	8.8
	1996	2,189	15.0	1,172	8.0
	1997	2,267	15.5	1,187	8.1
	1998	2,294	15.6	1,212	8.3
	1999	2,369	16.1	1,228	8.3
	2000	2,445	16.1	1,119	7.4

* Live Births

^ Per 1,000 Population

Source: Kentucky Cabinet for Health Services, DPH Data Warehouse

Vital Statistics Reports (1995-2000)

Prepared by: Northern Kentucky Area Planning Commission, August 2004

Table 4-4 compares the population of the cities and the unincorporated area in Campbell County between 1990 and 2000, including estimates for the period from 2000 to 2004. During the census period, the City of Wilder was the fastest growing city in Campbell County with a 279.7 percent change in population, a gain of 1,933 persons. Approximately two-thirds of the cities in Campbell County grew in population within the period. California experienced the largest percentage drop in population (-33.8 percent). The City of Cold Spring experienced a growth rate of approximately 32 percent (approximately 920 persons). This is the fourth highest growth rate in Campbell County. The cities of Wilder, Highland Heights, and Alexandria experienced higher growth rates than the City of Cold Spring (279.7, 55.2, and 48.2 percent, respectively).

Growth in terms of households and household types between 1980 and 2000 is shown on Table 4-5. The total number of households in Campbell County grew from 28,649 in 1980 to 34,742 in 2000. The proportion of married couple families decreased by 4.4 percent at the County level. This was accompanied by a significant increase in female headed households (42.6 percent). Smaller households also became more prevalent during this period: persons per household dropped from 2.87 in 1980 to 2.49 in 2000.

POPULATION PROJECTIONS

Population projections for Northern Kentucky are shown on Table 4-6 and Table 4-7. The projections contained in these tables and figures are based on the 2000 Census and other data collected and prepared by the Kentucky State Data Center. The information in these tables and figures represent the high growth series. For planning purposes, the high growth series is recommended by the Kentucky State Data Center, as it generally portrays a higher level of population, thus providing a “cushion” for planning and policy making.

Campbell County is increased in population from just under 84,000 in 1990 to approximately 88,600 in 2000, an increase of 5.6 percent and approximately 4,600 people. From 2000 to 2020, the county is projected to increase to approximately 95,000 people, an increase of 6,400 people, or approximately 7 percent. This rate of population increase will be approximately the same as expected in Kenton County, with the addition of just under 12,000 people, but less than Boone County, which will increase by approximately 80 percent, adding over 68,000 people (See Table 4-4).

Table 4-7 shows population projections by age group for Campbell County from 2000 to 2030. Age groups over 65 will increase their proportion of the population. This group is projected to increase from approximately 12 percent of the population in 2000 to approximately 18 percent of the population by 2030. Younger age groups are projected to decrease their proportion, especially the 0 - 17 year olds, which will decrease from approximately 28 percent of the population in 2000 to approximately 24 percent of the population by the year 2030.

An important element of planning for future growth within the City of Cold Spring entails determining how much population will reside there. The city has been experiencing significant growth over the last ten (10) to fifteen (15) years. Because increased population is related

Table 4-4
Comparison of Population
Campbell County Cities
1990 and 2000 / 2000 and 2004

	POPULATION			1990 - 2000		2000 - 2004	
	1990	2000	2004	NUMBER	% CHANGE	NUMBER	% CHANGE
Alexandria	5,592	8,286	8,016	2,694	48.2	-270	-3.4
Bellevue	6,997	6,480	6,091	-517	-7.4	-389	-6.0
California	130	86	82	-44	-33.8	-4	-5.0
Cold Spring	2,886	3,806	4,992	920	31.9	1,186	31.2
Crestview	356	471	459	115	32.3	-12	-2.5
Dayton	6,576	5,966	5,619	-610	-9.3	-347	-5.8
Fort Thomas	16,032	16,495	15,733	463	2.9	-762	-2.8
Highland Heights	4,223	6,554	6,326	2,331	55.2	-228	-3.5
Melbourne	660	457	451	-203	-30.8	-6	-1.3
Mentor	169	181	169	12	7.1	12	-6.6
Newport	18,871	17,048	16,086	-1,823	-9.7	-962	-5.6
Silver Grove	1,102	1,215	1,171	113	10.3	-44	-3.6
Southgate	3,266	3,472	3,391	206	6.3	-81	-2.3
Wilder	691	2,624	2,880	1,933	279.7	256	9.8
Woodlawn	308	268	169	-40	-13.0	-99	-36.9
Total County	83,866	88,616	87,256	4,750	5.7	-1,360	-1.5
Total Cities	67,859	73,409	71,635	5,550	8.2	-1,774	-2.4
Total Unincorporated	16,007	15,207	15,621	-800	-5.0	414	2.7

Source: (1) U.S. Bureau of the Census, 1990-2000 Decennial Censuses from the
(2) Kentucky State Data Center, Population Research, University of Louisville, 2003 Edition
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-5
 Personal Households and Family Characteristics
 Campbell County
 1980 - 2000

	1980	1990	2000	1990 - 2000 PERCENT CHANGE
TOTAL PERSONS	83,317	83,866	88,616	5.7
In Households	82,217	82,873	86,575	4.5
In Group Quarters	1,100	993	2,041	105.5
TOTAL HOUSEHOLDS	28,649	31,169	34,742	11.5
FAMILY HOUSEHOLDS	21,828	22,237	23,093	3.8
MARRIED COUPLE FAMILIES	18,259	17,618	17,458	-0.9
With Children Under 18	9,756	8,996	8045	-10.6
With Children Under 6	4,355	N/A	N/A	N/A
FEMALE HEADED FAMILIES	2,995	3,661	4272	16.7
With Children Under 18	1,673	2,254	2544	12.9
With Children Under 6	622	N/A	N/A	N/A
NON-FAMILY HOUSEHOLDS	6,821	8,932	11,649	30.4
PERSONS PER HOUSEHOLD	2.87	2.66	2.49	-6.4
PERSONS PER FAMILY	3.40	3.22	3.09	-4.0

Source: U.S. Bureau of the Census, 1980 - 2000 Decennial Censuses

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-6
Population Projections
2010 - 2030

AREA	POPULATION			PROJECTIONS			NUMBER CHANGE 2000 - 2030	PERCENT CHANGE 2000 - 2030
	1980	1990	2000	2010	2020	2030		
Boone County	45,842	57,589	85,991	116,181	154,885	204,591	118,600	137.9%
Campbell County	83,317	83,866	88,616	92,315	94,962	95,862	7,246	8.2%
Kenton County	137,058	142,031	151,464	158,304	163,311	165,443	13,979	9.2%
Tri- County	266,217	283,486	326,071	366,800	413,158	465,896	139,825	42.9%

Source: (1) U.S. Bureau of the Census, 1980-2000 Decennial Censuses

(2) Kentucky State Data Center, Population Research, University of Louisville, 2003 Edition

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-7
Population Projections by Age Group
Campbell County
2010 - 2030

AGE GROUP	2000 CENSUS		2010 PROJ		% CHANGE 2000 - 2010	2020 PROJ		% CHANGE 2000 - 2020	2030 PROJ		% CHANGE 2000 - 2030
	POP.	% OF TOTAL	POP.	% OF TOTAL		POP.	% OF TOTAL		POP.	% OF TOTAL	
0 - 19	25,387	28.6	24,311	26.3	-4.2	24,101	25.4	-5.1	23,752	24.8	-6.4
20 - 64	52,064	58.8	57,055	61.8	9.6	57,478	60.5	10.4	55,048	57.4	5.7
65 +	11,165	12.6	10,949	11.9	-1.9	13,383	14.1	19.9	17,062	17.8	52.8
TOTAL	88,616	100.0	92,315	100.0	4.2	94,962	100.0	7.2	95,862	100.0	8.2

Source: (1) U.S. Bureau of the Census, 2000 Decennial Census
(2) Kentucky State Data Center, Population Research, University of Louisville, 2003
Edition Prepared By: Northern Kentucky Area Planning Commission, August 2004

directly to the provisions of services it is important for planning purposes to get a reasonable estimate of the potential level of this growth during the planning period.

Population projections from the Kentucky State Data Center are for the entire county (See Tables 4-6 and 4-7). In order to estimate projected population growth in the City of Cold Spring the city's share must be disaggregated from the county projection. A number of methods can be used to estimate the city's share of the county growth. One of the simplest ways is to assume that the ratio of city population to county population remains constant or that that rate increases/decreases at an assumed rate based on historical trends. This method is appropriate if it can be assumed that growth will remain at a pace similar to what it has historically. Recent population counts from the 2000 Census and from annual estimates indicate that the city has been growing at a rate of just over 30 percent (See Table 4-4) for several years. At this recent pace it is clear that utilization of this method will likely result in a low estimate at least during the short term.

Another methodology is to compare recent population trends with building permit and subdivision/development plan approvals and holding capacity of available land within the city. Available land is defined as land either zoned or identified on the comprehensive plan for residential land use. Building permits and platting of lots for development provide a picture of the level of development activity that can be anticipated. It also provides a measure of the accuracy of recent projections since the last Census of the Population. Building permit information was collected for the period since the 2000 Census. Based on this data (See Table 4-8), a total of 433 residential dwelling have been added. Using the 2000 Census average household size (2.46 persons) for the city these units house approximately 1,078 persons (see Table 4-8). When added to the 2000 Census population of 3, 806 (See Table 4-4) the new population using this method is 4,884 persons. This is very close to the estimate for 2004 of 4, 992. This information verifies that the city has actually continued to grow at the pace indicated by the 2000 Census.

The number of platted lots and vacant land for residential development provide other indicators that can help determine anticipated growth rates. Platted lots show the number of lots actually comprising an inventory that will eventually be built upon. Most land developers anticipate a growth period of between five (5) and ten (10) years for completion of projects. Vacant land currently identified for residential land use provides a snapshot of potential holding capacity of the city's existing land resources that could result in new population. At this time data for platted lots is limited to recent development approvals. There are likely a number of vacant lots within older areas of the city also ready for development that have not been identified for this plan update due to the difficulty in researching this data. The primary development that has been approved that will impact population growth for several years is the Granite Springs development off Bunning Lane. To date some 300 units have been approved with a potential for more. Furthermore, other developments such as Ivy Ridge, in unincorporated Campbell County, and a planned residential component for the Cold Spring Crossing development along the AA Highway indicate the potential continuation of the growth trend in the city.

The last analysis, as previously described, is the estimation of holding capacity of available land within the city. Using residential densities identified on the land use plan map of the

Table 4-8
Number of Residential Dwelling Units by Type and Year
2000 - 2004

YEAR	SINGLE FAMILY	ATTACHED SINGLE-FAMILY AND MULTIFAMILY	TOTAL UNITS	TOTAL POPULATION
2000	19	84	103	256
2001	24	143	167	416
2002	23	49	72	179
2003	27	26	53	132
2004	38	0	38	95
TOTAL	131	302	433	1078

Source: Survey of Zoning/Building Permit Applications (NKAPC)
Prepared By: Northern Kentucky Area Planning Commission, June 2005

comprehensive plan, this analysis determined the number of acres, units per acre and population that would be generated based on the number of persons per household from the 2000 Census. Based on this information approximately 3,600 additional persons could be accommodated on existing land within the city. Since land use categories are comprised of density ranges this figure represents the mid-range. Based on this analysis the holding capacity of the city would be approximately 9,000 persons.

The point of these analyses is to portray that the City of Cold Spring at its current growth rate, a rate that appears likely to continue for at least the next few years, must continue to prepare for an influx of new population. A variety of issues can change both the rate of growth and density of development. These can range from economic related issues, such as interest rates, that can slow or increase the pace of development to policies and programs initiated at the city in regards to such issues as annexation, zone changes for higher density residential development, and capital improvement projects that encourage or discourage land development. In any event, the city must be watchful of this growth and be prepared to manage the change that can be anticipated with new population increase.

HOUSING FOR SENIOR CITIZENS

Table 4-9 presents information regarding housing units available specifically for senior citizens in Campbell County. As previously discussed (see Table 4-5), population growth in the older age groups is projected to increase over the population growth in the younger age groups. This is indicative of the potential for increased demand for housing units for the elderly. While Cold Spring has no housing units specifically designed for use by the elderly, those listed in Table 4-9 are available for use by residents from Cold Spring.

SUBSIDIZED RENTAL HOUSING

Information available regarding subsidized rental housing in Campbell County does not specifically indicate how many, or if any, units currently exist within the City of Cold Spring. Table 4-10 provides an inventory of subsidized housing units in Campbell County. There are approximately 2,000 subsidized housing units in the county. Most of these are provided for within the City of Newport. Information regarding LIHTC (Low Income Housing Tax Credit) units is not readily available by jurisdiction. The LIHTC program is the newest subsidized housing program. This program was established by Congress in the 1981 tax code, and today is the main vehicle for affordable housing production for low income families and individuals. This program provides an investor in a low income housing development project a dollar for dollar tax credit on the money invested. Savings of this subsidy to the investor are passed on to tenants in the form of lower rents.

EMPLOYMENT CHARACTERISTICS

From 1996 to 2003, the unemployment rate for the Northern Kentucky Area as a whole, ranged from 3.1 to 5.1 percent (see Table 4-11). This is lower than that for the State of Kentucky, which ranged from 4.1 to 6.2 percent during that time. In 2003, the unemployment rate for Campbell County (4.8) was similar to that for Kenton (4.8) and Boone (4.9) counties.

Table 4-12 shows the number of people employed in Northern Kentucky, from 1995 to 2003, by place of residence of the employee. Since Kenton County is more populated (approximately 151,464 people for 2000) than Boone and Campbell counties (85,991 and 88,616 people, respectively), it is expected that Kenton County would have a higher number of people employed. However, what is significant is Boone County's growth in the number and percent of employees by place of residence from 1990 to 1997 which greatly surpassed that of the other two counties an increase of 32.1 percent, versus 9.1 percent for Kenton and 6.8 for Campbell. This is another indicator of the rapid growth of population and employment opportunities in Boone County.

Table 4-13 shows employment by industry type for Campbell County as compared to all of Northern Kentucky. In 2002 the government & military sector at 17.6% and the wholesale and retail industry at 17.5% provided the largest portion (35.1%) of the employment base for Campbell County, compared to 27.1% for Northern Kentucky as a whole.

Table 4-9
Elderly Housing Units in Campbell County

NAME AND LOCATION	TOTAL UNITS	ASSISTED LIVING UNITS (1)	RENT SUBSIDY	COMMENTS
Baptist Convalescent Center Newport	30	30	No	Also operates facility with nursing and personal care
The Barrington Fort Thomas	110	Varies	No	Assisted and independent living
Carmel Manor Fort Thomas	145	145	No	Nursing Home with skilled and intermediate care
Center Park Bellevu	29	0	No	Independent living services provided (2)
Grand Towers Newport	150	0	Yes	Affiliated with the Newport Housing Authority
Highland of Fort Thomas Fort Thomas	140	140	No	Nursing home facility has 20 Medicaid units, skilled and intermediate care
Lakeside Terrace Highland Heights	95	0	Yes	57 units subsidized
Saratoga Place Newport	96	0	No	
Speers Court Dayton	91	0	Yes	
Two Rivers Newport	70	0	Yes	
Washington Apartments Bellevue	34	0	No	Independent living services provided (2)

- (1) Assisted living is a descriptive term in Kentucky, not a licensed activity, and often includes bathing and dressing as well as laundry, housekeeping, and meal delivery
- (2) Independent living services may include laundry, housekeeping, and meal delivery

Source: Northern Kentucky Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-10
2004 Inventory of Subsidized Housing Units in Campbell County

AREA	PUBLIC HOUSING UNITS	SECTION 8 VOUCHERS	UNITS RECEIVING SECTION 8 ASSISTANCE	TOTAL
Alexandria	--	33	35	68
Cold Spring		41	37	
Dayton	45	114	104	263
Fort Thomas		70	55	125
Highland Heights		100	85	185
Newport	571	432 (+ 90 more possible)	70	641
Southgate		11	18	
County Balance		272		272
Total	616	~1073	404	1,554

- (1) Federal Housing Administration
(2) Low Income Housing Tax Credit

Source: Northern Kentucky Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2005

Table 4-11
Labor Force Characteristics
1996 - 2003

AREA	YEAR	CIVILIAN LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	RATE OF UNEMPLOYMENT
Boone County	1996	38,082	36,522	1,560	4.1
	1997	40,948	39,478	1,470	3.6
	1998	44,000	42,744	1,256	2.9
	1999	46,336	45,088	1,248	2.7
	2000	48,075	46,763	1,312	2.7
	2001	49,233	47,201	2,032	4.1
	2002	49,357	47,414	1,943	3.9
	2003	50,539	48,070	2,469	4.9
Campbell County	1996	44,658	42,671	1,987	4.4
	1997	46,240	44,398	1,843	4.0
	1998	45,577	43,986	1,591	3.5
	1999	45,839	44,346	1,493	3.3
	2000	46,301	44,800	1,501	3.2
	2001	45,924	43,657	2,267	4.9
	2002	44,223	42,338	1,885	4.3
	2003	45,098	42,924	2,174	4.8
Kenton County	1996	77,097	73,873	3,224	4.2
	1997	79,838	76,820	3,018	3.8
	1998	79,228	76,640	2,588	3.3
	1999	80,158	77,615	2,543	3.2
	2000	82,141	79,445	2,696	3.3
	2001	81,619	77,629	3,990	4.9
	2002	48,820	75,377	3,443	4.4
	2003	80,254	76,420	3,834	4.8
Northern Kentucky	1996	159,837	153,066	6,771	4.2
	1997	167,026	160,696	6,331	3.8
	1998	168,805	163,370	5,435	3.2
	1999	172,333	167,049	5,284	3.1
	2000	176,517	171,008	5,509	3.1
	2001	176,776	168,487	8,289	4.7
	2002	142,400	165,129	7,271	5.1
	2003	175,891	167,414	8,477	4.8
Kentucky	1996	1,867,135	1,762,132	105,003	5.6
	1997	1,928,061	1,824,260	103,801	5.4
	1998	1,930,297	1,841,262	89,035	4.6
	1999	1,966,574	1,878,686	87,888	4.5
	2000	1,979,248	1,898,571	80,677	4.1
	2001	1,962,469	1,856,674	105,795	5.4
	2002	1,932,470	1,824,480	107,990	5.6
	2003	1,956,384	1,835,909	120,475	6.2

Source: Kentucky Workforce Development Cabinet, Department for Employment Services
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-12
Employment by Place of Residence
1995 - 2003

YEAR	BOONE COUNTY	CAMPBELL COUNTY	KENTON COUNTY	TOTAL NORTHERN KENTUCKY
1995	35,151	42,237	73,528	150,916
1996	36,522	42,671	73,873	153,066
1997	39,478	44,398	76,820	160,696
1998	44,000	45,577	79,228	168,805
1999	46,336	45,839	80,158	172,333
2000	48,075	46,301	82,141	176,517
2001	49,233	45,924	81,619	176,776
2002	49,357	44,223	78,820	172,400
2003	50,539	45,098	80,254	175,891
CHANGE 1995 - 2003	15,388	2,861	6,726	24,975
PERCENT CHANGE 1995 - 2003	43.8	6.8	9.1	16.5

Source: Kentucky Workforce Development Cabinet, Department for Employment Services
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-13
Employment by Industry (Non-Agricultural) by Place of Work
2002

INDUSTRY (NAICS)*	2002			
	CAMPBELL CO.		NO. KENTUCKY	
	NUMBER	PERCENT	NUMBER	PERCENT
Forestry/Fishing	N/A	N/A	N/A	N/A
Mining	N/A	N/A	N/A	N/A
Utilities	N/A	N/A	490	N/A
Construction	N/A	N/A	8,816	N/A
Manufacturing	3,118	9.5	18,390	9.9
Wholesale and Retail	5,729	17.5	28,267	15.1
Transportation and Warehousing	N/A	N/A	16,903	N/A
Information	369	1.1	3,099	1.7
Finance and Insurance	831	2.5	9,040	4.8
Real Estate	1,711	5.2	8,046	4.3
Professional/Technical Services	1,956	6.0	8,650	4.6
Management	270	0.8	2,032	1.1
Administrative and Waste Services	1,519	4.6	10,642	5.7
Educational Services	736	2.3	3,525	1.9
Health Care and Social Assistance	3,981	12.2	17,164	9.2
Arts/Entertainment/Recreation	811	2.5	3,054	1.6
Accommodation and Food Services	3,671	11.2	16,565	8.9
Other Services (except Public Administration)	2,218	6.8	9,534	5.1
Government and Military	5,757	17.6	22,399	12.0
Total	32,677	100.0	186,616	100.0

* NAICS (North American Industry Classification System) replaced the U.S. SIC (Standard Industry Classification) in 1997. SIC data was no longer collected after 2000. Therefore, a comparison between 2002 and previous years will not be made due to the different methods of classifying the data.

Source: U.S. Bureau of Economic Analysis 2004

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-14
Agricultural Statistics for Boone, Campbell, and Kenton Counties
1992, 1997, and 2002

AREA	NUMBER OF FARMS	NUMBER OF ACRES IN FARMS	ACRES OF HARVESTED CROP LAND	LABOR FORCE* AGRICULTURAL EMPLOYMENT	CASH RECEIPTS
1992					
Boone	798	80,864	18,709	440	\$17,970,000
Campbell	533	43,447	10,280	265	\$6,359,000
Kenton	507	44,188	9,904	303	\$6,862,000
Total	1,838	168,499	38,893	1,008	31,191,000
1997					
Boone	691	79,855	23,861	240	\$15,856,000
Campbell	503	45,108	11,098	155	\$5,441,000
Kenton	442	37,788	9,627	138	\$5,094,000
Total	1,636	162,751	44,586	533	26,391,000
2002					
Boone	743	74,915	21,641	263	\$18,148,000
Campbell	581	50,383	14,957	181	\$5,853,000
Kenton	495	46,479	13,042	155	\$5,311,000
Total	1,819	171,777	49,640	599	29,312,000

* By Place of Residence, includes only Operators by Principal Occupation of Farming

Source: 1992-2002 Census of Agriculture, National Agricultural Statistics Service of the USDA
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Agricultural data reveals that in 2002, agriculture sector in Boone, Kenton, Campbell, counties provided over 599 jobs. In 1997, farming in the Northern Kentucky area provided 533 jobs. In 1992, farming generated 1,008 jobs. In Boone, Campbell, and Kenton counties, the number of farms, amount of farmland, employment, and cash receipts have declined between 1992 to 2002 (see Table 4-14).

PER CAPITA INCOME

In 2002, Kenton County had the highest per capita income (\$30,332) in the Northern Kentucky area, while Campbell County had the highest percent of change from 1997 to 2002 of 26.1 percent.

Per capita income in the Northern Kentucky area was higher than in the State of Kentucky as a whole. Within Campbell County, Wilder, Fort Thomas and Cold Spring had the highest per capita income in 2000. Highland Heights had the highest percent increase between 1990 and 2000 (see Table 4-16).

Table 4-15
Per Capita Income
1997 – 2002

AREA	1997	1998	1999	2000	2001	2002	PERCENT CHANGE 1997 - 2002
Boone County	24,825	26,274	27,709	29,740	29,809	29,703	19.6
Campbell County	22,246	23,632	24,748	26,562	27,270	28,049	26.1
Kenton County	24,513	25,742	26,979	29,199	29,396	30,332	23.7
Kentucky	20,855	22,043	22,763	24,414	24,954	25,494	22.2

Source: U.S. Bureau of Economic Analysis 2004
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 4-16
Per Capita Income for Campbell County Cities
1990 and 2000

CITY	1990	2000	PERCENT CHANGE 1990 - 2000
Alexandria	13,742	22,001	60.1
Bellevue	11,569	17,983	55.4
California	9,650	15,143	56.9
Cold Spring	17,784	24,451	37.5
Crestview	12,626	18,118	43.5
Dayton	9,182	15,373	67.4
Fort Thomas	16,495	26,657	61.6
Highland Heights	7,019	19,651	180.0
Melbourne	10,827	23,324	115.4
Mentor	10,560	24,425	131.3
Newport	9,107	15,207	67.0
Silver Grove	11,926	15,129	26.9
Southgate	16,281	24,188	48.6
Wilder	13,340	27,693	107.6
Woodlawn	11,007	20,888	89.8

Source: U.S. Bureau of the Census, 1990 - 2000 Decennial Censuses
Prepared By: Northern Kentucky Area Planning Commission, August 2004

EFFECTIVE BUYING INCOME

Table 4-17 divides households into three income classes, and calculates effective buying income (EBI) according to the number of households in each class for the year 2003, which is the most current reporting period. EBI is a measure of economic well being, based on disposable income, the amount which residents can spend on goods and services.

Campbell, and Kenton counties are similar in the percent of households in the lowest income class (23.4 and 22.6, respectively), while Boone is lower at 17.8. All three counties are similar in the middle class with 20.9, 21.0, and 21.7. Boone County has a higher (47.8%) percentage in the over \$50,000 class, while Kenton and Campbell are similar at 36.4 and 34.5. Boone County has the highest Median Household EBI at \$48,542, followed by Kenton County at \$39,819 and Campbell County at \$38,269. All three counties are above the Kentucky average of \$31,418.

Table 4-17
Effective Buying Income (EBI)*, by Income Class
2003

INCOME CLASS	PERCENTAGE OF HOUSEHOLDS			
	BOONE COUNTY	CAMPBELL COUNTY	KENTON COUNTY	KENTUCKY
\$20,000 - \$34,999	17.6	23.4	22.6	24.8
\$35,000 - \$49,999	20.9	21.0	21.7	18.8
\$50,000 and Over	47.8	34.5	36.4	26.3
Total EBI (\$000)	2,005,464	1,656,043	3,037,145	66,224,116
Median Household EBI	48,542	38,269	39,819	31,418

* EBI (or "disposable income") is defined as personal income less personal tax and non-tax payments

Source: 2003 Survey of Buying Power, *Sales & Marketing Management*
Prepared By: Northern Kentucky Area Planning Commission, August 2004

RETAIL SALES

In Northern Kentucky, from 2000 to 2003, Boone County led in total dollar retail sales of over \$2 billion dollars (see Table 4-18), compared to Kenton County with \$1.3 billion dollars and Campbell County with approximately \$800,000. Both Boone and Kenton counties saw a rise in 2001, followed a slight decrease in both 2002 and 2003. Campbell County posted a decrease in both 2001 and 2002 and a sharp rise in 2003. This could be reflective of the opening of the shopping complex in Cold Spring at the intersection of US27 and the AA Highway. The Kenton and Boone experience parallels the Kentucky pattern and can be assumed to be following the national economic conditions. Boone County continues to be the dominant retailing center with the strong retail base formed by the location of the Florence Mall in Boone County. However this may change in the future with the emergence of the lifestyle center in Crestview Hills and the new retailing center in Crescent Springs, both in Kenton County.

In Campbell County, the automotive category had the highest sales in 2003 with a total of \$253,270,000. This is followed by food, eating and drinking establishments, and general merchandise sales.

In summary, automotive and food are the main retail groups in Campbell County. Food and eating and drinking are the highest in Kenton County; and automotive and general merchandise are the highest in Boone County. Growth in Boone County in the general merchandise group is

Table 4-18
Retail Sales by Store Group (\$000)
2000 – 2003

AREA	YEAR	FOOD	EATING AND DRINKING	GENERAL MERCHANDISE	FURNISHINGS/ APPLIANCES	AUTOMOTIVE	TOTAL RETAIL SALES
Boone County	2000	152,952	151,849	341,482	95,481	629,023	2,163,006
	2001	165,915	163,638	322,729	88,055	625,237	2,239,628
	2002	179,730	172,199	313,755	85,628	582,557	2,159,793
	2003	174,198	185,666	343,256	90,378	534,866	2,143,826
Campbell County	2000	166,422	105,878	73,605	16,587	234,458	768,912
	2001	160,554	113,234	70,400	13,588	220,885	759,774
	2002	158,536	113,539	77,416	12,429	211,040	757,806
	2003	174,168	111,773	95,195	15,947	253,270	868,578
Kenton County	2000	362,210	204,547	98,765	67,134	152,772	1,310,879
	2001	394,416	225,167	95,888	63,927	144,928	1,403,473
	2002	395,575	226,197	84,316	63,981	129,622	1,392,509
	2003	363,055	241,563	86,615	58,190	106,329	1,313,767
Kentucky	2000	8,565,260	4,432,183	6,975,889	1,599,197	11,545,719	44,729,914
	2001	5,967,211	4,929,694	7,231,493	1,511,461	11,373,783	46,130,568
	2002	5,827,317	4,769,211	6,724,942	1,410,087	10,842,453	44,583,012
	2003	5,340,024	4,824,305	7,387,771	1,453,866	9,874,120	44,342,961

Source: 2000-2003 Surveys of Buying Power, *Sales & Marketing Management*
Prepared By: Northern Kentucky Area Planning Commission, August 2004

most likely the result of the strong retail base created by the Florence Mall and the other retail establishments in close proximity to the mall. As a major regional retail center, this mall attracts customers from a wide area. Kenton County's lead in food may be due to their higher population and the fact that primarily local residents will purchase food products.

INFORMATION TECHNOLOGY

Information technology plays an important role in employment and economic development. Businesses will demand greater access to an information infrastructure which is flexible and capable of handling their diverse needs. This is especially true when firms are looking to expand their operations. The availability of information technology infrastructure is essential for existing and future employers in the City, as well as for citizens who utilize information technology in their homes. Listed below are some examples of the services and capabilities which will be dependent on developments in the information technology field:

DIGITAL NETWORKING

In today's business world, reliable and efficient access to information has become an important asset in the quest to achieve a competitive advantage. File cabinets and mountains of papers have given way to computers that store and manage information electronically. Coworkers thousands of miles apart can share information instantaneously, just as hundreds of workers in a single location can simultaneously review research data maintained online.

Networking allows one computer to send information to and receive information from another. We may not always be aware of the numerous times we access information on computer networks. The Internet is the most conspicuous example of computer networking, linking millions of computers around the world, but smaller networks play a role in information access on a daily basis. For instance, many public libraries have replaced their card catalogs with computer terminals that allow patrons to search for books far more quickly and easily. Airports have numerous screens displaying information regarding arriving and departing flights and retail stores feature specialized computers that handle point-of-sale transactions. In each of these cases, networking allows many different devices in multiple locations to access a shared repository of data.

Broadband

Broadband communications provide multiple channels of data over a single medium or source. Broadband comes from the words "broad bandwidth" and is used to describe a high-capacity, two-way link between an end user and access network suppliers capable of supporting full-motion, interactive video applications.

Cincinnati Bell maintains an extensive network of copper and fiber optic communications cables to serve the city. Fiber optic lines are strands of optically pure thin glass that carry digital information over long distances. The fiber optic network can accommodate additional customer requirements such as high-quality, high-speed transmission of voice, video and data. The fiber optic cable currently provides such services as DS3, a high capacity channel that can be used for

voice, data, video, and switched services, eliminating the need to maintain multiple dedicated lines for different applications. Broadband access is expected to be readily available to residents and businesses in the city by the end of 2005.

Customers using traditional telephone services and high-speed services including DSL (Digital Subscriber Line) and T1 (1.544 Megabit/sec) are generally served via the copper network that is installed along all roadways and into all customer buildings. T1 service is regulated by the Kentucky Utilities Commission and is readily available in the city.

Local Area Network Technology

A local area network (LAN) is a computer network covering a local area, like a home, office or small group of buildings such as a college. WiFi is the popular term for a high-frequency wireless local area network (WLAN). WiFi is an acronym for "Wireless Fidelity" and represents a local area network that uses high frequency radio signals to transmit and receive data over distances of a few hundred feet.

CONCLUSION

Since the 2000 Plan Update, Campbell County has begun to realize an increase in population growth. All the indicators of growth are positive and show that the county and the cities can place themselves in a position for continued growth and development. However, there are trends in Campbell County and the region that should be watched such as the aging population and increases in the number of households headed by one parent. For example, housing for elderly residents located within the city may be one issue that will need to be addressed.

The population of Campbell County is still shifting to the south as indicated by the population growth of the unincorporated part of the county and the cities of Wilder, Alexandria, Highland Heights, and Cold Spring. As this shift proceeds, the cities in this area of the county should experience continued increases in economic growth as businesses expand or new businesses start to serve the growing population. Forthcoming chapters in this plan will describe and discuss actions which can be taken by the city to enhance the area and handle increased growth and development.

CHAPTER V LAND USE

GENERAL

This chapter presents information on existing and future land use for the City of Cold Spring. Information in this chapter on existing land use, and that found in subsequent chapters relating to community facilities, water supply and waste management, and transportation is synthesized with data found in previous chapters relating to environmental characteristics, population, and the economy to form the base studies for the comprehensive plan. This chapter reflects the combination of this information as it relates to future land use. In addition to this information, the Goals and Objectives, found in Chapter II, were utilized as a guide to land use decisions.

EXISTING LAND USE ANALYSIS

In order to understand the existing land use characteristics of the city, a generalized land use survey was undertaken. The purpose of this survey was to identify land use patterns to assist as background for this plan. Aerial photographs, on-site investigations, and zoning and subdivision reviews, were used to identify land use patterns and areas of new construction since the adoption of the 2000 Cold Spring Comprehensive Plan.

The predominant physical feature which has shaped the development of the city, is the ridgetop upon which U.S. 27/Alexandria Pike is located and those ridges which radiate out from U.S. 27/Alexandria Pike toward the Licking and Ohio Rivers. These ridgetops have been formed by erosion from the streams that drain water into the nearby rivers. It is upon these ridgetops that the city has developed. Basically the U.S. 27/Alexandria Pike ridgetop runs northwest – southeast through the center of the city and is the focal point of the city's development.

Existing commercial development, and much of the early residential development in the city, has occurred along U.S. 27/Alexandria Pike. The general development pattern of the U.S. 27/Alexandria Pike corridor is one in which newer commercial/office development is replacing the older commercial and residentially developed land. Along the northern portion of the corridor, from the city limits of Highland Heights to the intersection of Industrial Road and Pooles Creek Road, is an area predominantly of commercial, professional office, and industrial land uses. There are a few remaining residences along U.S. 27/Alexandria Pike, as well as small residential concentrations along side streets within this area. Industrial development extends north along Industrial Road from U.S. 27/Alexandria Pike. This area comprises all the land currently identified and used for industrial development within the city.

The reconstruction of U.S. 27/Alexandria Pike in 1998 changed the character of the entire U.S. 27/Alexandria Pike corridor, from I-275 to East Alexandria Pike/Murnan Road. Additional right-of-way was purchased and a number of land uses have changed since the roadway was widened. The city's growth has been further shaped by the completion of the AA Highway and the annexation of new land areas.

From U.S. 27/Alexandria Pike, south of Pooles Creek Road, to the AA Highway, are the major areas of residential development and public/semi-public uses (e.g., the public library, churches, and schools) within the city. Most existing residential areas gain access to U.S. 27/Alexandria Pike within this stretch of the corridor. Generally, the older residential areas lie to the east/northeast of the corridor while newer residential development lies to the west/northwest. Completion of the AA Highway in 1991 has created demand for increased commercial development in the vicinity of the interchange with U.S. 27/Alexandria Pike.

A number of land use changes have occurred since the 2000 Cold Spring Comprehensive Plan. Several commercial businesses have been constructed in the northeast quadrant of the U.S. 27/Alexandria Pike and AA Highway interchange as part an overall planned mixed-use development called Cold Spring Crossing. A number of additional commercial uses have developed in the northwest and southwest quadrants of the interchange. The most significant change on U.S 27/Alexandria Pike north of Pooles Creek Road has been the closing of the K-Mart department store as well as a number of commercial uses changing hands. The outlying areas of the U.S. 27/Alexandria Pike corridor primarily contain single family residential land uses. Most development in the western area of the city is along existing rural roads.

A number of residential developments were constructed since the last plan update with direct access to the AA Highway. Situated near the Murnan Road overpass, they include the Glenridge, Ivy Ridge and Shadow Lake subdivisions. Further north in the city, a large plan of residential development, was also approved in 2004. This development, entitled Granite Spring, proposes to construct approximately 547 residential units comprising 212 detached single family units and 335 attached single family units.

LAND USE PLAN ELEMENT

The land use plan element has traditionally been the most critical element of the comprehensive plan, since it forms the primary basis for local zoning. The first step taken to update the land use plan element was an evaluation of the land use categories. Land use categories for this comprehensive plan remain unchanged from those used in the 1995 and 2000 comprehensive plans.

The process to update the Comprehensive Plan consisted of the following steps:

1. Identification of all public facilities (e.g., schools, parks, fire stations, etc.), which have been built since the 2000 Comprehensive Plan.
2. Identification of areas where development, which was not in agreement with the comprehensive plan, have occurred since the last comprehensive plan.
3. Identification of changing conditions which had some effect on land development, as described in the other chapters in this comprehensive plan.
4. Identification of recent zone changes which have not been reflected on the comprehensive plan and which effectively have changed the plan.

5. Identification of major premises upon which formulation of this comprehensive plan was based. These major premises are as follows:
 - a. The city has its own identity and can further develop its identity by creating a Town Center area, which will become the focal point for recreational and cultural activities.
 - b. The movement of traffic along U.S 27/Alexandria Pike within the city can be improved through the addition of a connector between U.S. 27/Alexandria Pike and the AA Highway, and development of a street system to accommodate local traffic flow that can bypass the AA Highway and U.S. 27/Alexandria Pike.
 - c. A basic premise of this plan is that recommendations concern "how land should be developed over the next 20 years", rather than" how much land should be developed. Thus, the plan consents to accept less sophistication in the projected year 2020 land use acreage determination, while placing more importance on insuring that development takes place in accord with plan recommendations. If development occurs at a faster or slower rate than anticipated, planning for service systems will have to be modified -- extended or developed at a more rapid or slower rate -- but the integrity of the plan will not have been sacrificed. Development will still be taking place in accord with land use recommendations.

LAND USE PLAN ELEMENT DESCRIPTION

The following text describes the recommended Land Use Plan, including a general description of each land use category and the general locations recommended for each type of land use. Following is the general description of each category, which includes specific information on the intent of the planning commission in regards to designating these areas. The recommended Land Use Plan is shown on Map 2.

AGRICULTURAL AND RURAL USES

Land in this category is intended to be used for agricultural and related rural uses and is not anticipated or recommended to be developed for any use requiring full urban services (e.g., public water and sewer) within the planning period. This category is not intended to restrict agricultural development or rural character residential development. It is further recognizes the existence of scattered rural commercial uses that serve the surrounding population but which do not comprise areas of concentrated commercial activities. The only area identified with this land use category is located along Licking Pike, adjacent to the Licking River, south of the AA Highway.

RESIDENTIAL

Four density ranges of residential development have been identified in the preparation of the 2005 Comprehensive Plan. It is important to note that residential densities referred to herein are "net residential densities", meaning exclusive of land to be used for streets and alley right-of-way and other non-residential uses (e.g., land for schools/parks/necessary utility pump stations and other essential service facilities). It is not the intention of this plan to automatically allow development to occur at the upper end of the density ranges. Rather, the density of development should be determined by the recommended density range and its interrelationship with the Goals and Objectives (see Chapter II), the availability of recreational facilities and other community facilities, and the existing/anticipated transportation network.



It is important to emphasize that the residential land use categories used in this plan are purposefully broad. The intent of this plan is to communicate that proposed development, within each density range, will be consistent with the plan’s adopted Goals and Objectives, and will be able to be appropriately served with existing and planned infrastructure and community facilities. The specific listing of what uses will be permitted in each of the zoning districts, and what densities (i.e., minimum lot size requirements) will be permitted, will be reviewed and recommended by the planning commission and set by Cold Spring City Council when zoning ordinances are adopted or amended.

The density of development, permitted within a given residential zoning district of a zoning ordinance, should be within the broad density ranges identified in this plan, but clearly may be more restrictive than the plan's broad categories. For example, one category of residential land use is a range of 7.1 to 14.0 dwelling units per net acre. At any given specific location, the appropriate density may be approximately 7.1 to 10.0 dwelling units per net acre. As a result, a zone district designation that permits this density is appropriate because it meets both the specific criteria of the location and the broad land use designation of the comprehensive plan.

"Density" is the major determinant of residential development as described in the Goals and Objectives. A listing of the four residential density categories is as follows:

2.0 dwelling units per net acre and under	Single-Family
2.1 - 4.0 dwelling units per net acre	Single-Family
4.1 - 7.0 dwelling units per net acre	Single-Family
7.1 - 14.0 dwelling units per net acre	Single/Multi-Family

Most land designated for residential development within the city is under 7.0 dwelling units per net acre. Highest densities (7.1 to 14.0 dwelling units per net acre) are located where services and the transportation network are available to serve the population expected from such

development. Land designated within this category is located: between Pooles Creek Road and Martha Layne Collins Boulevard, west of U. S. 27/Alexandria Pike; adjacent to land identified for non-residential and mixed uses along U.S. 27/Alexandria Pike, between East Alexandria Pike and Pooles Creek/Industrial Road, on both the east and west sides.

In most cases, this comprehensive plan reflects coordination with the plans prepared by adjoining planning jurisdictions. Generally, proposed residential densities are compatible with adjoining residential densities in adjoining jurisdictions. However, this plan update recommends that the densities of areas which are currently in the unincorporated area, but within the planning area of the city, maintain their existing recommended densities throughout the planning period. These areas are described as follows:

Murnan Road Area

This area is located along the east and west side of Murnan Road, north of the AA Highway (see Map 3). The ease of access to this area is afforded by the close proximity to the AA Highway. This area is currently recommended for Residential Development at a density ranging from 4.1 to 7.0 dwelling units per net acre within the 2000 Campbell County Comprehensive Plan. The Transportation Plan Element of this plan update recommends that Murnan Road be realigned with East Alexandria Pike at U.S. 27/Alexandria Pike with road improvements as an urban collector street. Should this area be developed and annexed by the city in the future, this plan update recommends that the density of this area be maintained at 4.1 to 7.0 dwelling units per net acre.

Outlying Area

The outlying area comprises unincorporated territory at the northeast, south and southwest edges of city (see Map 4). The majority of these areas are currently recommended for Residential Development at a density ranging from 2.1 to 4.0 dwelling units per net acre within the 2000 Campbell County Comprehensive Plan. This plan update recommends that the recommended densities per the Campbell County Comprehensive Plan be maintained should annexation and development occur within the city.

One area, however, located near the terminus of Weaver Road is currently recommended for Residential Development at a density ranging from 4.1 to 7.0 dwelling units per net acre. This designation is not consistent with the area along the southern section of Weaver Road, within the city, which is currently recommended for Residential Development at a density ranging from 2.1 to 4.0 dwelling units per net acre. This plan update therefore suggests that the recommended density of this area be changed to a density ranging from 2.1 to 4.0 dwelling units per net acre within the 2000 Campbell County Comprehensive Plan. It is further recommended that the city, in collaboration with the Campbell County Fiscal Court, seek to ensure that land development density within these areas not exceed densities within the city. This is particularly important where traffic flow from these new developments will flow through existing developed areas.

COMMERCIAL

This category of land use has been divided into two subcategories: Retail/Service and Office. The following is a description of each of these land uses.

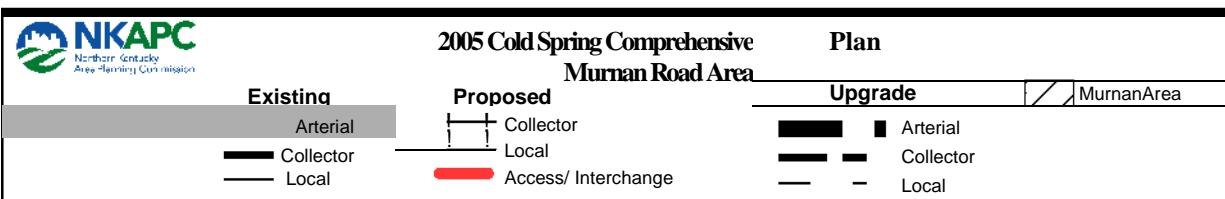
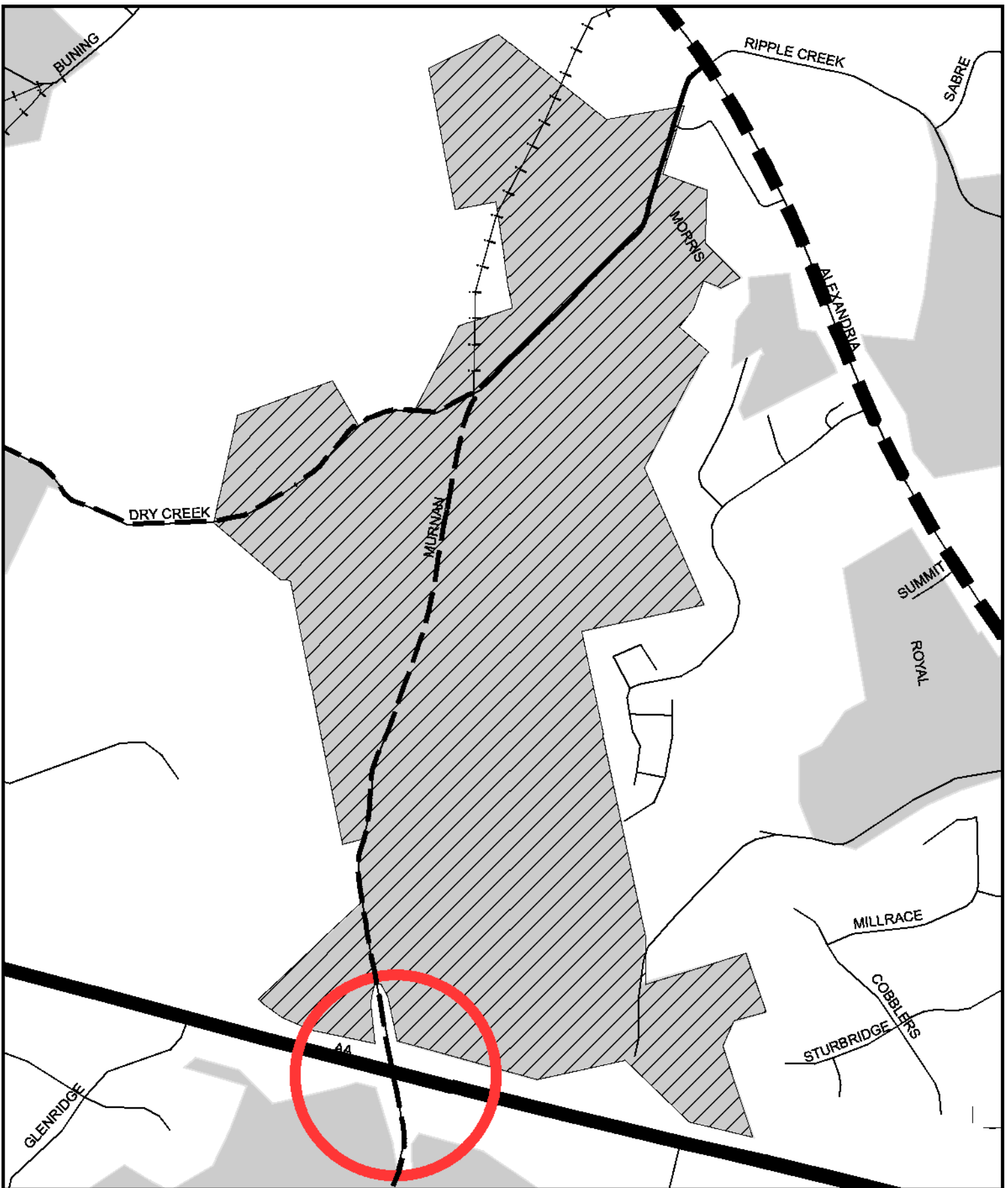
Retail/Service

Land areas classified in this category identify commercial concentrations which provide a wide range of retail sales and service activities, including comparison and convenience type goods and services. A number of changes are recommended in order to accomplish the objectives of this plan. This plan recommends retail/service uses be designated primarily in three (3) locations: the northwest and northeast quadrants of the U.S. 27/Alexandria Pike and AA Highway interchange; and the area located along U.S. 27/Alexandria Pike, south of the AA Highway.

The area north of Pooles Creek Road was recommended for retail/service uses in the 2000 Comprehensive Plan. It is the goal of this plan to include this area as part of the U.S. 27/Alexandria Pike Corridor - Special Development Area (see section regarding Special Development Areas later in this chapter). The intent of this change is to incorporate the existing commercial development in this area as part of a larger plan with land use regulations that can apply to the entire corridor.

- The area along the south side of Martha Lane Collins contains existing commercial development which is already fairly intense. Improvements made to U.S. 27/Alexandria Pike, including intersection changes at Pooles Creek Road should accommodate a continuation of this area designated for retail/service within the comprehensive plan.
- The area located at the northwest quadrant of the U.S. 27/Alexandria Pike and AA Highway interchange is developing with: (1) retail/service uses oriented towards serving area residents; and (2) smaller retail/service uses oriented towards serving those using U.S. 27/Alexandria Pike and the AA Highway.
- This plan update also recommends retail/service uses be designated for the portion of the northeast quadrant of the interchange which has been developed since the 2000 Comprehensive Plan. This area is currently being developed with a mix of commercial retail, office and residential uses as part of an overall plan of development. Land uses for the remaining area of the quadrant are anticipated to include a mix of residential and office uses and will remain identified as part of a Special Development Area which is discussed in more detail in this chapter.





Map
3
 2005 Cold Spring
 Comprehensive Plan

- The area located along U.S. 27/Alexandria Pike, south of the AA Highway, can be further broken down into two distinct areas:
 - The area located at the southwest quadrant of the U.S. 27/AA Highway interchange has been developed with a retail/service superstore and a restaurant. Additional land area remains for an additional outlot to develop throughout the planning period.
 - The area located along the west side of U.S. 27/Alexandria Pike, south of the U.S. 27/Alexandria Pike and AA Highway interchange represents small individual lots that area either developed with commercial entities or are occupied by residential dwellings that have the potential to be converted into small retail/service businesses.

Office

Land classified for office use is so located to be easily accessible to major transportation corridors and in close proximity to other similar land uses. It is recognized that office type development: is little affected by noise associated with major thoroughfares; often has the potential for interesting architectural treatment; and can provide a transition between more intense and less intense land use activities. To accomplish the objectives of this comprehensive plan, office uses have been designated primarily at four (4) locations:

- Along the east side of U.S. 27/Alexandria Pike, across from the County Square Shopping Center;
- Along the west side U.S. 27/Alexandria Pike, south of Pooles Creek Road, in the vicinity of the Campbell County Library;
- Along Ripple Creek Pike (north end), near the intersection with U.S. 27/Alexandria Pike;
- At the terminus of Aqua Drive (area of the former Northern Kentucky Water District office).

INDUSTRIAL

Land classified in this category is located along Industrial Road (Kentucky Route 1998). Areas identified for industrial use in previous plans are continued to be identified for industrial use in this plan. In general, the city has limited land for industrial development. This is primarily due to its location on ridgetops, which provide limited areas of sufficient level land for industrial activities. All existing industries within the city are classified as light industry in that they do not manufacture products directly from raw materials or create little or no noise and/or air pollution problems.

SPECIAL DEVELOPMENT AREAS

Land areas designated Special Development Area (SDA) are appropriate for areas containing specific land use objectives and which require specialized activities. Generally, the specific categories of land uses described in the Plan may not adequately describe the activities envisioned in these areas, and therefore the plan utilizes the category “Special Development Area” to locate these special areas on the Land Use Plan Map. For instance, this category is used to identify areas with potential for mixed land uses (e.g. Commercial/Residential/Recreational and Public/Semi-Public). The plan locates the category “Special Development Area” on the Land Use Plan Map with supplemental text in the plan to describe the development characteristics of land uses that are envisioned for each particular area.

This plan update designates three areas to be identified as Special Development Area: (1) along U.S. 27/Alexandria Pike; (2) the eastern section of the Cold Spring Crossing development near the existing terminus of Crossroads Boulevard; and (3) within the southeast quadrant of the U.S. 27/Alexandria Pike and AA Highway interchange.

U.S. 27/Alexandria Pike Corridor

This plan update recommends the area which generally comprises all parcels of land generally within two hundred feet of the right-of-way of U.S. 27/Alexandria Pike, but typically including the entire area of parcels abutting U.S. 27/Alexandria Pike from the city’s northern boundary with the City of Highland Heights to the intersection of Crossroads Blvd/Plaza Drive be designated as a Special Development Area (SDA). It is recommended that the city coordinate with Campbell County to designate those parcels identified as being within this area, but outside of the city boundary as part of an SDA within the Campbell County Comprehensive Plan.

Development within the SDA is intended to link the older residential areas of the city, the city parks, the public library, public and parochial schools, and the city's municipal buildings together via pedestrian/bicycle and automobile access. Land uses and buildings within the area will utilize design characteristics to create an environment compatible with nearby residential areas.



The key concept within this SDA is to create an area of commercial type development that is conducive to pedestrians traversing the area, shoppers, and visitors to the city. The intent of this plan is to discontinue strip type commercial development within this area, however, it is also the intent to create a commercial/office/residential mixed use environment which, as previously mentioned, is compatible with nearby residential areas. The significant elements of this land use lie in the proposed mix of land uses, architectural and site design, and public/semi-public improvements, all of which are intended to create a more livable environment in the central part of the city. One example of changes recommended herein would be placing required parking at the rear of buildings with access off existing side streets, thus moving the building closer to the street. Detail on proposed programs, design requirements, and land uses can be found in Chapter 10,

Implementation.

This SDA comprises land along the U.S. 27 corridor which has been the topic of much discussion and activity regarding new development. Development activity taking place in the city has highlighted the necessity for a proactive approach by the city within this area to create the type of environment previously described versus relying wholly on the private sector and development regulations to implement this part of the city's comprehensive plan.

The key concept within this SDA is to create an area of commercial type development that is conducive to pedestrians traversing the area, shoppers, and visitors to the city.

Development activity is influenced by the increased use of the AA Highway as well as the increased north-south traffic flow along U.S. 27/Alexandria Pike. Several businesses affected by the reconstruction of U.S. 27/Alexandria Pike, through the City of Highland Heights, have also sought new locations within the city along U.S. 27/Alexandria Pike. The city's advantageous location at the intersection of the AA Highway and U.S. 27/Alexandria Pike has also resulted in a surge of retail commercial development.

Cold Spring Crossing development - Eastern section

The 2000 Comprehensive Plan identified the entire area of the northeast quadrant of U.S. 27/Alexandria Pike and the AA Highway as a Special Development Area. Since the adoption of the 2000 Comprehensive Plan, the western section of the area has developed with a large retail center and a number of retail outlots.



The remaining eastern section of the area has not yet been developed, however, land uses for the remaining area of the quadrant are anticipated to include a mix of residential and office uses, per an existing approved development plan. This plan update therefore recommends that the eastern section of the Cold Spring Crossing Development area remain as SDA in accordance with the existing approved plans for the area.

U.S. 27/Alexandria Pike and AA Highway – Southeast Quadrant

This plan update identifies the southeast quadrant of the U.S. 27/Alexandria Pike and AA Highway interchange as SDA. Development within this area is intended to take advantage of the location within the Northern Kentucky/Cincinnati region, interstate access, and its proximity to Northern Kentucky University.



This comprehensive plan recommends that this area should be developed as a research and “high-tech” village development, centered on the emerging advantages of telecommunications and

technology infrastructure. It is further recommended that appropriate zoning regulations be drafted as necessary to assist in the implementation of the plan recommendations.

The key elements of this technology-oriented development are as follows:

- High tech telecommunications infrastructure to be incorporated with the conventional elements of the site development infrastructure. The availability of broadband technology in the area could easily serve a research center with an affiliation with Northern Kentucky University. Such infrastructure should relate and support the mixture of uses planned to create a unique environment and to offer advantages for attracting users to the development.
- Research centers and laboratories with associated professional offices to support the region's business and industrial growth areas. There is also a potential for both academic and science-based medical research facilities, with emergency medical capability and/or hospital facilities to provide both in-patient and outpatient services.
- Offices and corporate space for medium to small size companies in the "high tech" and telecommunications and digital/video fields to create a synergy and mutual support environment. The development of "office condominiums" in this area would also be beneficial for medical practitioners or other professionals.
- Learning facilities through the collaboration of Northern Kentucky University.
- Commercial uses to support a variety of establishments within the overall development. The master plan should not consider typical strip uses or big box retailers. The commercial uses could range from restaurants and support shops to commercial units and services to support hotels, offices, teleconferencing shops, video and digital retailers, electronics, and other such units (i.e., dry cleaners, barber shops, copy centers).
- Hospitality/conference facilities, including a hotel with teleconferencing facilities and telecommunications options, extended stay residences in combination with residential uses.
- Residential uses of varying densities and types to provide housing options for those working in the village and the region, and others who will be working at home but will need the support of teleconferencing facilities and the mixed use of the village

A large part of this interchange is located within the unincorporated area. In order for this area to be a more effective and viable planned development, additional land area will be needed. To address those areas which are outside the city limits, the city should coordinate with the Campbell County Planning Commission to ensure consistency in the recommendations for the area and any associated zoning/land use regulations.

TOWN CENTER

The 2000 Cold Spring Comprehensive Plan identified the Town Center as “one of the most critical and pressing needs of the city”. The original goal of the Town Center was to locate a focus area for the community which should be planned and designed as “an economic activity center, a residential neighborhood, and a civic space environment, based on a detailed urban design plan and strategy”. The location for the original Town Center was on the west side of U.S. 27/Alexandria Pike at the intersection with East Alexandria Pike.

The Town Center should be planned and designed to become a recreational and cultural activity center, a civic space environment that creates a unique environment with a focus on the community.

Since the preparation and adoption of the 2000 Cold Spring Comprehensive Plan, a number of retail centers have located at the north and south ends of the city. Across from St. Joseph’s Church and adjacent to the Cold Spring Branch of the Campbell County Library are new retail/service uses. Furthermore, near the border with the City of Highland Heights is a strip commercial center that has been in operation for many years. A large retailing and restaurant complex was also developed at the U.S. 27/Alexandria Pike and AA Highway interchange, and contains a number of retail establishments including Kroger, Kohl’s, Home Depot, Meijer, Ruby Tuesday’s and Longhorn Steak House, among others being planned for future development. As a result of this development, it is unlikely that the potential still exists for major retail development at the previously proposed Town Center site.

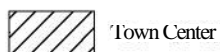
The Cold Spring City Building is located midway between these two nodes of retail and commercial-oriented development, and is within a short distance of many residential subdivisions located along both sides of U.S. 27/Alexandria Pike. Excluding the residential properties, the area along East Alexandria Pike, east of U.S. 27/Alexandria Pike, is composed of public/semi-public and open space uses. In addition, the city has title to approximately twenty-five (25) acres in this area, bordered to the north and east by East Alexandria Pike, to the south by the rear lot lines of residences on Sabre Drive, and to the west by a residential property which fronts onto East Alexandria Pike (see Map 5).

This plan therefore recommends that the Town Center concept be revised from a predominantly retail-based center to a center which focuses on the cultural, recreational, and educational needs of the city. The intent is to maintain the goal that a focus area for the community is needed, however, that it be oriented more towards developing a major public space area which is accessible to citizens, offering community-oriented activities and recreational amenities which would serve the needs of the community.





2005 Cold Spring Comprehensive Plan Cold Spring Town Center



Town Center

The proposed location for the Town Center continues to maintain the location advantages as the previously recommended location in that it is still at the center of the city and easily accessible to many city residents, however, would provide a educational and recreational component rather than a retail/service component.

The Town Center should be planned and designed to become a recreational and cultural activity center, a civic space environment that creates a unique environment with a focus on the community. The center should be developed on the basis of a detailed civic and recreational design plan and strategy. The key features of the Town Center could include the following:

- A group of public educational, recreational and cultural uses, integrated in a creative manner to incorporate the existing natural features, buildings and public amenities of the area.
- An amphitheatre to provide the amenities necessary for projecting outdoor movies and for the production of local theatrical groups. The amphitheatre may also serve as a gathering area for community events, to accommodate festivals, a performance stage, and other community events.
- Multi-use paths for walking and cycling trails that can meander through the area, accessible to both pedestrians and cyclists, with public amenities such as outdoor seating, lighting and landscaping. A specially designed fitness trail could provide additional exercise opportunities.
- A clubhouse / senior center / youth educational center occupying the existing city-owned buildings on the site. A swimming pool located behind the existing day-care building can be reactivated and become part of a recreational center.
- The remaining space on the north side of East Alexandria Pike could accommodate one or more tennis courts. The former city administration building, currently used as a church, could be utilized as a youth center or a senior center or both.
- Areas on both the north and south sides of East Alexandria Pike should be better connected by painted crosswalks, traffic stop signs or signal lights, or if funds permit, by a pedestrian bridge over East Alexandria Pike. In addition, access management should be utilized to discourage unnecessary curb cuts onto East Alexandria Pike.
- Pedestrian accessibility and connectivity to the street network, and other community trails/parks should be incorporated into the design of the center

PHYSICALLY RESTRICTIVE DEVELOPMENT AREAS (PRDA)

Land in this category is generally characterized by physical conditions which would be severely restrictive to any intensive urban type development (usually those areas subject to periodic flooding or areas containing severe slope conditions -- 20 percent slopes or greater). Of particular importance are those areas identified which contain slopes of 20 percent or greater

coupled with the "Kope" geologic formation. Such areas are particularly susceptible to hillside slippage.

Plan recommendations for areas so designated are not intended to imply that such areas should not be developed, but rather that most of these areas should remain undeveloped and, thus, would become an integral part of the natural open landscape of the city.

Where development is proposed in such areas, this land use category should alert the developer and the city to a potential problem which must be addressed prior to any construction. Any development of areas designated "Physically Restrictive Development Area" should be a type of use that is compatible with the recommended land use of adjacent areas, unless sound bases can be shown for other land use types. It is further recommended that development of these areas be adequately controlled through local land use regulations.

Where development is proposed in such areas, this land use category should alert the developer and the city to a potential problem which must be addressed prior to any construction.

WATER

Land in this category includes all lands covered by water within the city.

FLOOD PRONE AREAS

Areas identified in this category includes all land subject to a 100 year flooding condition. The City of Cold Spring has only a few areas affected by flooding. These areas are along Pooles Creek Road and the Licking River. There may be periodic flooding along other small streams within the city, but these areas have not been recorded as flood hazard areas by the Federal Emergency Management Agency (FEMA).

COMMUNITY FACILITIES

Land in this classification has been subcategorized into three classifications. The following is a brief description of these classifications. Further detail on these uses is provided in Chapter VI, Community Facilities.

School Parks

Land in this classification is either used presently, or is recommended to be used, for public school facilities and coordinated with recreational facilities to serve both the school and recreation needs of the community. This category is used only to identify those schools which are a part of the public school system.



Other Community Facilities

This category is intended to be inclusive of such facilities as: fire and police protection facilities; city and county administration and service facility buildings; public and private utility buildings and structures; and all other major types of facilities which involve provision of a public service or interest function to the area (e.g., federal and state offices, and other facilities such as post offices, cemeteries, and museums). In some cases the development and use of these facilities may involve the provision of recreation and open spaces which is also specifically covered in a separate category.

Recreation and Open Space

This category is intended to identify those areas of existing or proposed public outdoor recreation and open spaces. Other areas for recreation may exist as in school park sites or in privately developed areas.

ANNEXATION OF UNINCORPORATED AREAS

Due to past annexations, there are several areas of Unincorporated Campbell County which are surrounded by the city. To better implement the recommended Town Center development, the Special Development Areas, and other elements of this plan, as well as to provide for the orderly development of these areas, it is important that they be annexed into the city and developed in a manner which is compatible to the recommended land uses of adjacent areas currently within the city.

INTERRELATIONSHIP WITH OTHER PLAN ELEMENTS

Land use recommendations contained in this chapter, and identified on the Land Use Plan map, must consider the impact on, and the relationship to, other elements of the comprehensive plan. For example, increased residential development, and the resulting increase in population, requires commercial services to be provided by land uses within areas identified for commercial uses and other service facilities, such as schools, recreation, water and sewer service, and transportation. Failure to consider these interrelationships and to plan for coordinated increases in these areas will lead to a deficiency of necessary support for residents within the city. It is the intent of this comprehensive plan to assure that all support services be considered as land is developed within the city to help ensure that all needs of the existing and future population are accommodated.

SUMMARY OF MAJOR RECOMMENDATIONS

1. This plan designates three (3) areas as Special Development Areas (SDA). Land areas designated SDA are appropriate for areas containing specific land use objectives and which require specialized activities. For instance, this category is used to identify areas with potential for mixed land uses (e.g. Commercial/Residential/Recreational and Public/Semi-Public). The plan locates the category “Special Development Area” on the

Land Use Plan Map with supplemental text in the plan to describe the development characteristics of land uses that are envisioned for each particular area.

The following three (3) areas are designated SDA within the 2005 Comprehensive Plan:

- U.S. 27/Alexandria Pike Corridor: All parcels of land generally within two hundred feet (200') of the right-of-way of US 27, but typically including the entire area of parcels abutting US 27, from the city's northern boundary with the City of Highland Heights to the intersection of Crossroads Blvd/Plaza Drive.
 - Cold Spring Crossing Development Area: The eastern section of the northeast quadrant of U.S. 27/Alexandria Pike and the AA Highway, which is not yet developed, to be developed consistent with existing approved plans.
 - U.S. 27/Alexandria Pike and AA Highway Interchange – Southeast Quadrant
2. This plan recommends that the Special Development Area (SDA) zoning district within the Cold Spring Zoning Ordinance be renamed to avoid confusion in interpretation of areas identified as SDA within the Comprehensive Plan. It is also recommended that the land use regulations for areas designated as SDA within the Comprehensive Plan carry the same name as they are referenced in this plan update. The existing SDA Zone should therefore be amended and additional zoning regulations created in order to conform to the key concepts embodied in this plan update.
 3. The city should coordinate with the Campbell County Planning Commission to ensure consistency in the land use recommendations for areas which are located outside the city limits as well as any associated zoning/land use regulations.
 4. This plan recommends that the Town Center concept be revised from a predominantly retail-based center to a center which focuses on the cultural, recreational, and educational needs of the city. The intent is to maintain the goal that a focus area for the community is needed, however, that it be oriented more towards developing a major public space area which is accessible to citizens, offering community-oriented activities and recreational amenities for citizens of the community. The proposed location for the Town Center continues to maintain the location advantages as the previously recommended location in that it is still at the center of the city and easily accessible to many city residents.

CHAPTER VI

COMMUNITY FACILITIES

GENERAL

Community facilities addressed within this comprehensive plan are: schools; parks, recreation, and open spaces; fire and police protection; library facilities; and health care facilities. New in this plan update is a discussion of the role of the Office of Emergency Management.

This chapter contains a review of generally accepted standards for these various community facilities, identification of existing facilities, and recommendations for each type of community facility.

SCHOOL - PARK PLAN

Within this section, information is provided for all public and parochial schools serving Cold Spring. Public schools in Campbell County include schools within seven public school districts: Newport Independent; Dayton Independent; Bellevue Independent; Southgate Independent; Silver Grove Independent; Fort Thomas Independent; and Campbell County School District. Cold Spring students attend public schools in the Campbell County School District.

The basis for the school park plan is based upon a county-wide provision of services and does not attempt to address only the needs of the City of Cold Spring. This plan recognizes the need to achieve maximum utilization of existing school facilities and sites, in recognition of the high costs involved in purchasing land and constructing new schools. In addition the plan recommends that efforts be made between the City of Cold Spring and the Campbell County School District to jointly use school facilities for community wide recreational purposes.

School standards used in evaluating existing facilities and developing recommended School-Park Plans are an application of the standards developed by the Council of Educational Facility Planners International with slight modifications made to conform to the new statewide education reform program (see Table 6-1). These standards are intended as general guides for provision and development of educational facilities. This plan recognizes the fact that changes occurring in the state school system as a result of the school reform program may further modify existing standards.

In 1995, the Campbell County School District formulated a “District Facility Plan” that outlined all of the additions and renovations that had been planned. In 2003, the Campbell County School District amended this plan. The amendment included several construction priorities that were to begin both, between the years 2004 and 2006, and after the year 2006. This plan anticipated construction of a new elementary school in Alexandria as well as major renovations to existing educational facilities including elementary, middle and high schools. For instance, a new sports complex on 15 acres is also planned for Campbell County High School after 2006.

Table 6-1
School – Park Standards

ITEM	ELEMENTARY SCHOOL-PARK	MIDDLE/JUNIOR HIGH SCHOOL-PARK	SENIOR HIGH SCHOOL-PARK
Grades Served	K - 6	7 - 9	10 - 12
Desirable School Service Radius/ Reasonable Walking Distance	3/4 mile	1 - 1/2 miles	2 miles
Service Area	Neighborhood	Community	Community
Location (with respect to streets)	Should be located on a collector street	Should be located on or within one block of an arterial street	Should be located on or within one block of an arterial street
Minimum Site Acreage (1)	10 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment	20 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment	30 acres, plus one additional acre for each 100 or fraction of 100 pupils of forecasted enrollment
Desirable School Site Size (1)	14 - 16 acres	25 - 35 acres	40 - 50 acres
Recreation Area (2)	9 - 11 acres	17-24 acres	27 - 33 acres
Students per Teacher (3)	K - 3:24 4 - 6:26	31	31
Enrollment per School	300 - 600	450 - 900	750 - 1,500
Desirable School Service Radius/ Reasonable Maximum Walking Time	1/2 hour	1 hour	1 hour

(1)Based on enrollment range per school

(2)Assumes approximately 1/3 of the site will be used for building, parking, and landscaping, approximately 2/3 of the site is used for recreation and outdoor education

(3)Figure taken from “School Facilities Manual, 702 KAR 1:01E”, July 1991

(4)In sparsely populated areas, longer travel times may be reasonable

Source: (1) Adapted, in part, from “Guide for Planning Educational Facilities”, Council of Educational Facility Planners International, Columbus, Ohio, 1976

(2) Campbell County Board of Education, 2004

Prepared By: Northern Kentucky Area Planning Commission, August 2004

EXISTING SCHOOL FACILITIES

Students from Cold Spring attend three public schools: Donald E. Cline Elementary; Campbell County Middle; and Campbell County High. The parochial school system includes one school (St. Joseph) within the city. Bishop Brossart High School serves the parochial student population of Cold Spring. The location of all public and parochial schools within the City of Cold Spring is shown on Map 6. Information relative to public and parochial school facilities serving Cold Spring is provided in Tables 6-2 and 6-3.



Few changes have been made to Campbell County Public Schools affecting students from the city of Cold Spring, since the adoption of the last comprehensive plan. One change in particular, however, was that Cold Spring Elementary School was sold to the Northern Kentucky Cooperative for Educational Services (NKCES) in 2003.

OTHER EDUCATIONAL FACILITIES

Northern Kentucky University

Northern Kentucky University (NKU), located in Highland Heights in Campbell County, has good regional access via Interstate 275, Interstate 471, and U.S. 27/Alexandria Pike. The total number of undergraduate, graduate, and first-professional students enrolled in the institution as of August 2004 was 13,910. As the number of students has grown since 1990, so has the variety of courses and programs to suit their interests. Today, NKU offers 54 bachelor's and nine associate degree programs, as well as 14 graduate programs. Students at the Salmon P. Chase College of Law can earn a law degree or a combined law degree and MBA. Chase graduates have posted the highest Bar passage rate of all Kentucky law schools.

NKU combines a wealth of program options and resources with a supportive, learner-centered environment to ensure student success. Collaboration with local organizations such as Fidelity Investments and Fifth Third Bank allow the university to work hand-in-hand with local communities in making Northern Kentucky a better place to live while at the same time enhancing the educational experience of NKU's students. In Fall 2005, NKU will begin construction on The Bank of Kentucky Center, which will serve as the largest special events center in Northern Kentucky. The facility will host NKU commencement ceremonies as well as Norse athletic and local high school athletic competitions and various other national entertainment events.

Campbell County Vocational School

Campbell County Vocational School, located in Alexandria in Campbell County, provides vocational training for high school students from Campbell, Kenton, and Pendleton Counties.

The Northern Campbell County Vocational-Technical School, located in Highland Heights in Campbell County, provides vocational and technical training to people within the Northern Kentucky and Greater Cincinnati area who are in the 12th grade and higher.

Gateway Community and Technical College

Gateway Community and Technical College provides high quality, postsecondary education that is relevant to the needs of business and industry. The college places a significant emphasis on improving skills in the workplace by providing customized industry training through our Business and Industry Services Department as well as apprenticeship and adult education programs. Other partnerships with labor unions and trade associations offer students real world, up-to-date training and education.

Gateway Community and Technical College currently has three campuses located in Covington/Park Hills, Edgewood and Highland Heights. In addition, we are growing and are building a new campus in Boone County off I-75 at the Mount Zion Road exit. In addition to these campuses Gateway offers classes in Pendleton County. The college offers courses through the Urban Learning Center in Covington, Newport and Dayton in association with Northern Kentucky University and Thomas More College.

Over the next few years, the college will be transitioning to a comprehensive community and technical college. This transition will enable us to offer a broader range of programming. Traditional freshman and sophomore college classes will be designed for transfer to four-year colleges, and expanded student outreach programs will be designed to provide opportunities for those who want to get a new start on their education and career closer to home or by using the Internet.

RECREATION AND OPEN SPACE

Recreation facilities are made available for both active and passive recreation. Active recreation are those activities which generally fall into the category of sports, games, or play activities. Passive recreation involves activities such as walking, hiking, bird watching, picnicking, and those activities which are generally less physically strenuous.

Open space can be either privately or publicly owned, and is generally either undeveloped or developed in such a manner as to retain significant areas of open or “green space”. For example, undeveloped hillsides and stream valleys, golf courses, and cemeteries are all considered open space. Although open space needs are not easily quantified, such areas are important for our community and form an integral part of our natural landscape. These open space areas provide the aesthetic beauty that defines Northern Kentucky and serves as important



**Table 6-2
Inventory of Existing Public School Facilities
Cold Spring, Kentucky**

NAME AND ADDRESS OF SCHOOL	SERVICE AREA	GRADES SERVED	2003 - 2004 YEAR-END ENROLLMENT/ CAPACITY	NUMBER OF ROOMS			APPROX. SIZE OF SITE (acres)
				CLASSROOMS	GENERAL PURPOSE	SPECIAL	
Campbell County School District Donald E. Cline Elementary School 20 East Alexandria Pike Cold Spring, KY 41076	Wilder, Southgate, Highland Heights, Alexandria, and all of Cold Spring	K - 5	496/500	20	6	3	12
Campbell County Middle School 8000 Alexandria Pike Alexandria, KY 41004	All of southern Campbell County, California, Alexandria, Ross, Cold Spring, Highland Heights, and Wilder	6 - 8	1,055/1,500	53	3	9	31
Campbell County High School Lickert Alexandria, KY 41004	All of southern Campbell County, California, Alexandria, Ross, Cold Spring, Highland Heights, and Wilder	9 - 12	1,411/2,000	80	6	21	10
Vocational Schools Campbell County Vocational School 50 Orchard Lane Alexandria, KY 41004	High schools from Campbell, Pendleton, and Kenton Counties	15 years of age and up	181/288	12	0	0	30
Northern Campbell County Vocational-Technical School 90 Campbell Drive Highland Heights, KY 41076	Northern Kentucky and Greater Cincinnati	12th grade and up	197/300	17	0	0	5,000 sq. ft.

Source: Northern Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-3
Inventory of Existing Parochial School Facilities
Cold Spring, Kentucky

NAME AND ADDRESS OF SCHOOL	SERVICE AREA	GRADES SERVED	2003 - 2004 YEAR-END ENROLLMENT/	NUMBER OF ROOMS			APPROX. SIZE OF SITE
				CLASSROOMS	GENERAL PURPOSE	SPECIAL	
St. Joseph Elementary School 4011 Alexandria Pike Cold Spring, KY 41076	All of Cold Spring	K - 8	624/650	27	10	4	22
Bishop Brossart High School Jefferson & Grove Alexandria, KY 41001	Alexandria, California, Camp Springs, Cold Spring, Melbourne, and Wilder	9 - 12	414/450	16	2	4	7

Source: Northern Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

environmental areas such as floodplains, wildlife habitats, hillsides, and buffer zones which serve as “breaks” from more intense development.

Residents of the City of Cold Spring have a variety of recreation and open space facilities available to them. In addition to the facilities within the city, residents of the city are also served by the Campbell County park system, which includes the A.J. Jolly Park, located south of Alexandria along U.S. 27/Alexandria Pike, and the Edward S. Pendery Park, located along Kentucky State Route 8 adjacent to the Ohio River. A.J. Jolly Park contains approximately 900 acres and includes a bike trail, boating, camping, fishing, swimming, golf, horseback riding, and picnicking. Edward S. Pendery Park, also known as the Campbell County Sports Complex, contains approximately 70 acres and includes soccer and baseball fields, picnic areas, a public boat ramp, playground equipment, volleyball courts, and walking trails.

EXISTING PARK AND RECREATION FACILITIES

Existing parks and recreation facilities within the City of Cold Spring are shown on Table 6-4 and Map 7. There are five public facilities and one private facility within the city. The three public facilities are: Apple Orchard Park, located at the intersection of Orchard Terrace and Winters Lane; Friendship Park, located along the north side of East Alexandria Pike; Cold Spring Municipal Park, located along the south side of East Alexandria Pike; Patriot Park, located within the Glenridge subdivision; and Granite Springs Park, located within the Granite Springs development.



The Elks Newport Lodge, located along Alexandria Pike, south of Martha Layne Collins Boulevard, is the only private recreational facility within the city.

RECOMMENDED RECREATION AND OPEN SPACE PLAN

Table 6-5 lists the standards, published by the National Recreation and Park Association, used to evaluate existing park and recreation needs as part of this comprehensive plan. Within this plan, the category of “Area-Wide Park” combines the standards for both Metropolitan Park and Regional Park. The A.J. Jolly Park is an Area-Wide park serving Campbell County, including the City of Cold Spring. Existing parks within the city are classified either as Neighborhood or Community parks.

Table 6-6 provides an analysis of parks needs for Campbell County, including the City of Cold Spring, using the above-mentioned standards and 2020 and 2030 population. While the city is deficient in the amount of recommended acreage for neighborhood parks, the city exceeds the standards for community parks. Overall, the analysis indicates that the city has adequate land area in existing public parks to accommodate the existing population and the projected population of the year 2030. Nevertheless, to provide for better accessibility to recreational opportunities, it is recommended that:

Table 6-4
Inventory of Existing Park and Recreation Facilities
Cold Spring, Kentucky

FACILITY	ADDRESS/LOCATION	OWNERSHIP	TYPE (1)	AREA (acres)	FACILITIES
A.J. Jolly Park/ Golf Course	Alexandria Pike Campbell County	Public	A	900	Bicycle roads, boating, camping, fishing, golf course, horseback, riding, picnic area, soccer, ball fields
Apple Orchard Park	Orchard Terrace and Winters Lane Cold Spring	Public	N	1	Playground equipment, tables, plantings with a natural theme
Cold Spring Municipal Park	120 East Alexandria Pike Cold Spring	Public	C	23	Baseball fields, playground equipment, soccer field, picnic shelter, grills, picnic tables, volleyball court, and horseshoe pits
Elks Newport Lodge	3700 Alexandria Pike Cold Spring	Private	--	13	Ball field, horseshoe pits, shelter, and picnic tables
Friendship Park	29 East Alexandria Pike Cold Spring	Public	C	12	Baseball fields, basketball courts, volleyball courts, horseshoe pits, walking/jogging trail, picnic shelter, soccer field, playground equipment, and grills
Patriot Park	236 Ridgepoint Drive Cold Spring	Public	N	5	Playground, picnic shelter, basketball, restrooms

(1) N – Neighborhood Park, C – Community Park, A – Area-Wide Park

Source: Northern Area Planning Commission survey of existing facilities

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-5
Park and Recreation Standards

TYPE OF FACILITY	POPULATION SERVED	ACRES PER 1,000 POPULATION	SIZE RANGE (acres)	SERVICE AREA	PREFERRED LOCATION	FACILITIES
Neighborhood Park	2,000 - 10,000	2.5	Minimum 5, up to 20	1/4 to 1/2 mile radius	Adjoining the public elementary school or located centrally within the neighborhood service area	Play apparatus area each for preschool children and older children; paved multipurpose courts; recreation center building; sports fields; senior citizens area; open or free play area; family picnic area; off-street parking
Community Park	10,000 - 50,000	2.5	Minimum 20, up to 100	1/2 to 3 mile radius	Adjoining the public junior or senior high school and located near thoroughfares for easy accessibility convenient to public transportation	Play apparatus area each for preschool children and older children; multipurpose courts; courts for tennis, horseshoes, shuffleboard; outdoor swimming pool or indoor/outdoor pool as part of a school; center building; archery range; family picnic area; out
Metropolitan Park	One for each 50,000	5.0	Minimum 100, 250 to 1,000 desirable	Within 1/2 hour driving time	Depends on natural features available	Provide quiet contact away from congestion and noise; should take advantage of natural features such as lakes, ravines, cliffs, hills, views, scenic drives and paths, and undestroyed natural areas; commonly include: picnicking areas, boating, swimming fac
Regional Park	Should be distributed throughout the region or larger metropolitan area	20.0	Minimum 250	Within 1 hour driving time	--	Facilities normally include campgrounds; picnic area; nature centers; trail systems; water areas; fishing; golf courses; zoo or botanical gardens; band shells; outdoor theater; wildlife preserve; off-street parking; and in some cases sports fields

Source: Adapted, in part, from “National Park Recreation and Open Space Standards”, National Recreation and Park Association, Washington D.C., 1986

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-6
2030 Park Needs for Cold Spring compared to Campbell County

CITIES	2000 POPULATION	2020 POPULATION ESTIMATE (1)	2030 POPULATION ESTIMATE (2)	COMMUNITY PARKS			NEIGHBORHOOD PARKS		
				CURRENT ACREAGE	ACREAGE NEEDED 2020	ACREAGE NEEDED 2030	CURRENT ACREAGE	ACREAGE NEEDED 2020	ACREAGE NEEDED 2030
Campbell County	88,616	100,167	108,024	509	250	270	36	250	270
Cold Spring	3,806	9,290	14,515	35	22	35	6	22	35

(1) Estimate based on Kentucky State Data Center projections, November 2004

(2) Estimate based on aerial photography

Acreege computed on the basis of standards published by the “National Recreation and Park Association, Washington, D.C., 1986

Prepared By: Northern Kentucky Area Planning Commission, December, 2004

- A new neighborhood park be developed southeast of Pooles Creek Road, in the vicinity of Aqua Drive.
- A new neighborhood park be developed along the north side of the A-A Highway, south of Sturbridge subdivision.
- A new neighborhood park be developed within the residential development on Salmon Pass.

Campbell County Parks and Recreation Master Plan

The Campbell County Parks and Recreation Master Plan was completed in February 2002. One component of the plan was a comparison of park needs between cities in Campbell County. The results indicated that Newport, Bellevue, Highland Heights, and the unincorporated area have the largest deficit in park space. The areas that are best served by community and neighborhood parks where residents have to travel the least distance are the cities of Fort Thomas, Cold Spring, and Alexandria. The plan estimates that an additional 36 acres of mini, neighborhood and community parks will be needed by the City of Cold Spring in the year 2020. The gaps in the park system were in the area between Cold Spring and Alexandria, Highland Heights, the northern area of Wilder, and all the unincorporated area of the county.

The plan recommendations that pertain to the City of Cold Spring are as follows:

- That cities acquire and develop neighborhood and community parks in areas where new subdivisions are planned.
- A county park is needed in the vicinity of Cold Spring and Highland Heights.
- Develop a soccer complex with multiple fields.
- Develop another baseball/softball complex with lighted fields.
- Develop bike paths extending from Cold Spring and Alexandria to Route 8 and the River Path. The route of the proposed sewage line along Twelve Mile Road may be an option that should be investigated.

Town Center

This plan update recommends that a Town Center be developed which focuses on the cultural, recreational, and educational needs of the city. The goal of the Town Center is to serve a focus area for the community, comprising a public space area which is accessible to citizens. The Town Center should be planned and designed to become a recreational and cultural activity center - a civic space environment that creates a unique environment with a focus on the community. The proposed location for the Town Center is at the center of the city near the intersection of US 27/Alexandria Pike and East Alexandria Pike, an area which is easily

accessible to many city residents. Additional information on the Town Center can be found in Chapter V.

FIRE AND POLICE PROTECTION

EXISTING FIRE PROTECTION

An inventory of Cold Spring's fire protection facilities and equipment is shown on Table 6-7 and on Map 5. The City of Cold Spring is served by the Central Campbell County Fire Department. The fire department employs nine (9) full-time firefighters and has sixty (60) part-time personnel. Among the equipment the department has at its disposal is an aerial truck with a maximum height of one hundred two (102) feet. As of July 1, 2005, the Central Campbell County Fire Department began providing Advanced Life Support (ALS) service to the city of Cold Spring. Their paramedics will be trained to provide this service.

RECOMMENDED FIRE PROTECTION STANDARDS

Recommended standards for the distribution of fire companies are shown on Table 6-8. These standards are from the Fire Suppression Rating Schedule of ISO Commercial Risk Services. The standards listed in Table 6-8 for the distribution of fire companies are based on fire flows ranging from 500 to 3,500 gallons per minute and fire flow duration of 2 to 3 hours.

RECOMMENDED FIRE PROTECTION PLAN

This plan does not recommend specific improvements regarding fire protection. It is important for the fire department to monitor new developments within its service area and ensure that equipment, manpower, and water service are adequate for effective fire protection.

EXISTING POLICE PROTECTION

An inventory of Cold Spring's police protection facilities and equipment is shown on Table 6-9 and on Map 6. The Cold Spring Police Department employs nine (9) full-time officers and one (1) part-time employee. The department currently has eight (8) cruisers in its fleet.

RECOMMENDED POLICE PROTECTION PLAN

It is recommended that the Cold Spring Police Department continue to replace cruisers and other equipment as they become obsolete. The department should also stay abreast of new developments within the city and plan accordingly for police protection services.

OFFICE OF EMERGENCY MANAGEMENT (OEM)

The Campbell County Office of Emergency Management (OEM) is the agency of the county government having primary responsibility and authority for:

- Planning and execution of disaster and emergency mitigation;

- Preparedness, response and recovery for Campbell County;
- Coordination of disaster and emergency response by and between county agencies and political subdivisions
- Coordination and liaison with related agencies of the state and federal governments;
- Coordination of recovery operations subsequent to disaster and emergencies; and,
- Coordination of hazard mitigation planning activities.

The OEM is further responsible for the preparation and maintenance of the Campbell County Emergency Operations Plan (EOP) which serves as the comprehensive plan for the disaster and emergency response system for the county. The EOP was originally completed in April 1987, completely revised in 1995, and is updated annually. The EOP establishes policies and procedures for coordination of local, county, state and federal response to natural, technological and attack related disasters or other emergencies. The most recent update of the plan, adopted in July 2003, has been reviewed and approved by the Campbell County Fiscal Court and by the Director of the Office of Emergency Management. The EOP has also been adopted as an ordinance of the county pursuant to Chapter 91 of the Campbell County Code of Ordinances. This plan is also integrated into the disaster and emergency response plans of the state and federal governments.

The OEM is authorized by both Chapter 39 of the Kentucky Revised Statutes and Chapter 91 of the Campbell County, Code of Ordinances. The OEM is also the agency of county government responsible for the administration and enforcement of the Campbell County Hazardous Material Control Ordinance. This ordinance was originally adopted by the Fiscal Court in 1986 and revised in 1995.

The OEM is also responsible for the Hazardous Materials Spill Prevention Countermeasures (SPCC) program. Established in 1988, this program is designed to obtain detailed information from those facilities within Campbell County that use, store or process hazardous materials.

The OEM is staffed by two (2) full-time emergency managers and one (1) full time assistant staff person. Current personnel have extensive experience in the fields of emergency management, fire and rescue services, emergency medical services, hazardous materials response and public relations. Resources of the OEM include the Emergency Operations Center (EOC), located in Campbell County Police/OEM building in Alexandria.

LIBRARY FACILITIES

EXISTING LIBRARY FACILITIES

Residents of the City of Cold Spring are served by the Campbell County Public Library System which provides services on a countywide basis. An inventory of library facilities is presented in Table 6-10 and on Map 6. The Cold Spring Branch, located on Alexandria Pike, at French Street, is the closest branch to the residents of Cold Spring. Table 6-11 provides information on circulation and the collection of the Campbell County Public Library.



Table 6-7
 Inventory of Fire Protection Facilities and
 Personnel Cold Spring, Kentucky

NAME AND ADDRESS OF FIRE PROTECTION AGENCY	SERVICE AREA	TYPE	EQUIPMENT	ISO RATING	MANPOWER		APPROX. BUILDING SIZE (sq. ft.)
					FULL-TIME	PART-TIME	
Central Campbell County Fire Department	Cold Spring, Crestview, Highland Heights, Northern Kentucky U., Unincorporated Areas	Combination	2 engines 1 pumper/rescue 1 heavy rescue 1 aerial (102") 1 brush truck 2 pick-ups 2 staff vehicle 2 EMS units 1 reserve EMS unit	4/9	10	38	13,700

Source: Northern Kentucky Area Planning Commission survey of existing facilities
 Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-8
Standards of Distribution of Fire Companies (1)
Cold Spring, Kentucky

BASIC FIRE FLOW	NUMBER OF COMPANIES REQUIRED	FIRE FLOW DURATION (3)
500 - 1000 gpm (2) Ladder Companies	1 engine company within 2-21/2 miles 1 company within 2-1/2 miles	2 hours
1,250 - 2,500 gpm Ladder Companies	2 engine companies within 1-1/2 miles 1 company within 2-1/2 miles	2 hours
3,000 - 3,500 gpm Ladder Companies	3 engine companies within 1-1/2 miles 1 company within 2-1/2 miles	3 hours

- (1) Total number of companies required in an area the size of Northern Kentucky would be based on the distribution standards as contained herein
- (2) Gallons per minute
- (3) A water system capable of delivering at least 250 gpm for a period of two hours, plus consumption at the maximum daily rate

Source: Fire Suppression Rating Schedule of ISO Commercial Risk Services, Inc., as coordinated with the Insurance Services Office, 1980

Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-9
Inventory of Police Facilities and Personnel
Cold Spring, Kentucky

NAME AND ADDRESS OF POLICE AGENCY	SERVICE AREA	INCARCERATION FACILITIES	EQUIPMENT	MANPOWER		TRAINING PROGRAMS	COMMENTS
				FULL-TIME	PART-TIME		
Kentucky State Police P.O. Box 169 Dry Ridge, KY 41035	All of State	Campbell County Jail	48 cruisers 2 pick-up trucks	43	0	Special Rescue, K-9 Program	They have expanded their manpower and look to increase more in the future
Campbell County Police P.O. Box 6 Alexandria, KY 41007	All of Campbell County	Campbell County Jail	29 cruisers 2 4-wheel-drive cruisers	25	0	Field training, Deadly weapons and non-lethal weapons training	Specialized fields in include school resource officer, youth service officer, and accident reconstructionist
Campbell County Sheriff 4th and York Newport, KY 41001	All of Campbell County	Campbell County Jail	11 cruisers	13	24	State programs for officer training	Recent additions to staff for increase in security such as metal detectors
Cold Spring Police 120 East Alexandria Pike Cold Spring, KY 41076	All of City	Campbell County Jail	11 cruisers	11	1	State programs for officer training	--

Source: Northern Kentucky Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

The Campbell County Public Library System is a member of the Greater Cincinnati Library Consortium (GCLC), which consists of 43 other area libraries, including the Boone County and Kenton County Public Libraries, the Northern Kentucky University (NKU) Library, the Public Library of Cincinnati and Hamilton County, the University of Cincinnati Library, and Xavier University Library. Membership in this consortium provides the residents of Cold Spring access to over 10.3 million books and 51,000 periodicals, an increase of 2.3 million books and 1,000 periodicals since 1990. The GCLC system allows for both direct lending and interlibrary loans. Furthermore, the Campbell County Public Library System has a reciprocal borrowing agreement with the seven other Northern Kentucky counties (Boone, Carroll, Gallatin, Grant, Kenton, Owen, and Pendleton). This agreement provides for the direct lending to residents of these counties. Under this agreement, patrons from any of these counties can borrow directly from the library system in the other counties.

Also conveniently located in Highland Heights in Campbell County is the Northern Kentucky University (NKU) W. Frank Steely Library, which permits use of its facility to the general public. Floor space at the library is approximately 60,000 square feet. Current staff for the facility includes 17 faculty, 20 staff, and 43 student employees. To date, the book collection includes approximately 304,000 volumes, 1,550 periodical subscriptions, and 1,000,000 microfiche. This library is a governmental depository and receives selected government publications. The library contains approximately 640,000 federal government and 17,000 state government documents. Databases are automated, which enables cataloging and searching for data by computer.

HEALTH CARE FACILITIES

EXISTING HOSPITAL FACILITIES

There are four general medical/surgical acute care hospitals (licensed facilities which provide medical and/or surgical care and treatment of physical illness or injury, usually for thirty days or less per illness or injury) and two other special purpose hospitals serving Northern Kentucky. The Greater Cincinnati Hospital Council publishes an annual directory which contains more detailed hospital information.

The hospitals are described below:

- St. Elizabeth Medical Center North is located at 401 East 20th Street, in Covington, and was founded in 1861 by the Sisters of St. Francis. Due to the underutilization of acute care beds, 44 of the hospital's acute care beds have been converted to a skilled nursing unit. A plan has been proposed to convert an additional 31 beds for this purpose.
- St. Elizabeth Medical Center South is located at One Medical Village Drive, in Edgewood, and was founded in 1978.
- St. Luke Hospital East is located at 85 North Grand Avenue, in Fort Thomas, and was founded in 1954.

Table 6-10
Inventory of Public Library Facilities
Campbell County, Kentucky

NAME AND ADDRESS OF LIBRARY BRACH	SERVICE AREA	NUMBER OF BOOKS	ANNUAL CIRCULATION	STAFF		FLOOR AREA (sq. ft.)	APPROX. SIZE OF SITE (acres)	COMMENTS
				FULL TIME	PART TIME			
Cold Spring Branch 3920 Alexandria Pike Cold Spring, KY 41076	Cold Spring, Highland Heights, Alexandria and areas in southwest of the county	66,462	339,267	13	12	14,600	2.0	Opened in 1984. Library added 6,600 sq. ft. in 1995. Library owns building.
Philip N. Carrico Branch 1000 Highland Avenue Fort Thomas, KY 41075	Fort Thomas, Southgate, Wilder	59,134	287,885	8	12	15,000	3.8	Opened in 1996. Expanded by 6,200 sq. ft. in 1990.
Newport Branch 901 East 6th Street Newport, KY 41071	Newport, Bellevue, Dayton, Woodlawn	50,610	226,367	17	8	27,000	2.8	New facility opened in 2004.
Outreach Program	Rural areas of the county	N/A	3,938	N/A	N/A	N/A	N/A	Outreach vehicle purchased in 2002. Serves people who are unable to come to the library.

Source: Northern Kentucky Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Table 6-11
Public Library Service in Campbell County
Fiscal Year 2003

CHARACTERISTICS	
Total Population (2000)	88,616
Total Number of Employees	32 full-time 30 part-time
Total Book Collection	169,203
Book Stock per Capita	1.92
Total Registered Borrowers	59,864
Total Circulation	840,058
Interlibrary Loans (Borrowed)	3,733
Audio Tapes	13,938
Video Tapes	18,754

Source: Campbell County Library District, 2004
Prepared By: Northern Kentucky Area
Planning Commission, August 2004

- St. Luke Hospital West, the smallest of the four major hospitals, is located at 7380 Turfway Road, in Florence.
- HEALTHSOUTH Northern Kentucky Rehab Hospital, a free-standing comprehensive physical rehabilitation hospital, located at 201 Medical Village Drive, in Edgewood. This facility changed its name in January 1995, when it was bought by HEALTHSOUTH, Inc. of Birmingham, Alabama.
- Children's Psychiatric Hospital of Northern Kentucky is located at 502 Farrell Drive, in Covington. This facility provides inpatient and day treatment programs for adolescents experiencing social and emotional difficulties, and serves about 50 patients. It is operated by the Kenton County Board of Education.

Hospitals In Cincinnati Used By Northern Kentucky Residents

In addition to the Northern Kentucky hospitals, residents in Northern Kentucky may also use the following hospitals which are located in Cincinnati:

- Bethesda North Hospital
- Care Unit Hospital of Cincinnati
- Children's Hospital Medical Center
- The Christ Hospital

- Deaconess Hospital of Cincinnati
- Drake Center, Inc.
- Good Samaritan Hospital
- Jewish Hospital Kenwood
- Mercy Hospital Anderson
- Pauline Warfield Lewis Hospital
- Providence Hospital
- St. Francis - St. George Hospital
- Shriner Burns Institute
- University of Cincinnati Hospital
- Veterans Affairs Medical Center

OTHER HEALTH CARE FACILITIES

Northern Kentucky Family Health Care Centers

The Northern Kentucky Family Health Care Centers are full service medical facilities, and are open 24 hours a day, seven days a week. In addition to primary medical care, they provide dental care, some social services, immunizations, and health education. They predominantly serve low income people from Northern Kentucky. In 1994, 42,000 people were served. Most of those served are on Medicaid or Medicare, or are uninsured and pay on a sliding scale. The Pike Street facility is specially set up to serve homeless people and does not require an appointment. The centers are located at the following addresses:

- 615 Sixth Street, Dayton
- 741 Central Avenue, Newport
- 1132 Greenup Street, Covington
- Lee and Robbins (Pike Center), Covington

Northern Kentucky Diagnostic Centers

A new diagnostic center opened in Alexandria in 2000. The center is a joint venture between St. Elizabeth and St. Luke hospitals and contains an MRI and CT scan machines. A similar facility is located in Edgewood.

Long Term Care Facilities

Long term Care is defined as medical, social, and personal care services on a continuous basis to persons with chronic physical or mental conditions. Some facilities offer “personal care” beds only, which includes help with bathing, dressing, and dispensing of medications for those who are able to walk, while others offer more intensive nursing care for the bedridden (nursing beds). Some facilities are specifically for the elderly, while others offer a combination of care levels for a variety of ages and disabilities (see Table 6-12).

The need for long term care is increasing because of advances in health care which have allowed people to live longer with chronic illnesses, and also because of the fact that the elderly, who are most likely to have a long term illness, are the fastest growing segment of the population. Many of the long term facilities have high occupancy rates, and even waiting lists, particularly those which offer more intense levels of nursing care.

Table 6-12
Inventory of Long-Term Nursing and Personal Care Facilities
Campbell County, Kentucky

NAME OF FACILITY	RESIDENTS	NURSING BEDS	OCCUPANCY RATE	PERSONAL CARE BEDS	OCCUPANCY RATE
Baptist Convalescent Home Newport, KY 41071	Primarily Elderly	167	99%	30	99%
Carmel Manor Fort Thomas, KY 41075	Primarily Elderly	65	99%	80	60%
Lakeside Heights Nursing Center Highland Heights, KY 41076	Primarily Elderly	266	50%	0	N/A
Holy Family Home Melbourne, KY 41059	Serves Only Sisters of Providence	30	65%	55	65%
The Highlands Fort Thomas, KY 41075	Primarily Elderly	140	98%	0	N/A
Emerald Family Care Home Alexandria, KY 41001	Primarily Elderly	0	N/A	3	100%

Source: Northern Kentucky Area Planning Commission survey of existing facilities
Prepared By: Northern Kentucky Area Planning Commission, August 2004

Northern Kentucky Independent District Health Department

The Northern Kentucky Independent District Health Department is run by the District Board of Health. The Board is authorized under Kentucky Revised Statute, Chapter 212, to establish health policy, and pass and enforce regulations on issues of public health for Boone, Campbell, Kenton, and Grant Counties. The District Board is responsible for overseeing the local Boards of Health for each of these counties. There are 26 District Board members appointed for a two-year term by the fiscal court judge executives, with final approval from each county board of health.

The district has multiple offices. The main office is located at 610 Medical Village Drive, in Edgewood. The four health centers are located in Florence, Newport, Covington, and Williamstown. The centers provide prenatal and well child care, immunizations, family planning and control of communicable diseases. There is also a Health Education and Environmental Center located in Edgewood. Health education is provided in the schools and community. Environmental services provides inspection and education, monitoring and enforcement of sanitary conditions in public facilities, and on-site sewage disposal systems. Planning division activities include community assessment, public policy development, and assurance of health services in Northern Kentucky.

Volume I of the Community Health Plan, prepared in 1996, identifies teen pregnancy, prenatal care, immunizations, domestic violence and abuse, substance abuse, and access to health care as priority problems in the four county area. Volume II of the Health Plan, prepared in 1999, addresses three important chronic diseases and two environmental health issues:

- Heart disease
- Cancer
- Diabetes
- Outdoor air quality
- Surface water quality

INFORMATION TECHNOLOGY

Information technology can assist in providing access to information, materials and services typically found at city buildings, schools, libraries and other public agencies. The following examples for information technology and infrastructure related to community facilities should be examined:

- Electronic linking of community facilities such as schools, libraries, city and county buildings and other facilities holds potential for improving access to information by the public. This would include the availability of public information on-line where practical. For example, documents can be published electronically for reduced cost of distribution while also making the information more accessible.
- Potential improvements in public safety which could be realized by installing smoke, fire and burglary detection systems which could be automatically linked to emergency

dispatch services when activated. Although such systems are not yet perfected, their availability and usability will improve in the future.

- New developments in information technologies and infrastructure will have an impact on physical design and capacity of public facilities as well, perhaps affecting building and parking capacities as well as building code and design features. For example, new city/county/public office facilities being built should be designed to accommodate computer networking/video-conferencing networking capabilities in the design stage rather than as an afterthought.

Proximity to information technology access locations may become a factor in determining where people choose to live in the same way proximity to parks, schools, shopping, and churches plays a role now. The concept of "Universal Access" is defined as "the ability of every citizen to have access to information technology and infrastructure developments." This does not necessarily mean a computer or internet access in every home, but the ability for every citizen to have such access if so desired. This ability might be made available through facilities located in public libraries, city halls, schools, or kiosks in shopping malls. It could also be provided in the home through any number of service providers. Many people already take advantage of this capability through modems and telephone lines.

GOVERNMENT ORGANIZATIONS

Government agencies can take advantage of many capabilities to improve the delivery of services to the public. Publication and distribution of public records in electronic format, where practical, can help make information more accessible to the general public. "One-Stop Kiosks" can be designed to handle applications for permits and/or other necessary paperwork rather than forcing the citizen to visit several different locations.

NORTHERN KENTUCKY UNIVERSITY

Northern Kentucky University (NKU) is working in collaboration with Northern Kentucky business, civic and government leaders to attract successful technology-oriented businesses to the region. The concept of the university supporting New Economy technology commercialization is a key element of the New Economy Plan for Northern Kentucky, a regional plan developed as a collaborative effort involving NKU and area business and industry leaders in response to the Kentucky Innovation Act.

The Institute for New Economy Technologies (iNET) serves as a link between high-tech companies and the university's human, physical, and academic resources. iNET focuses on providing emerging high-technology companies with qualified interns and co-ops, relationships with academic scholars, and close proximity to university research.

Recognizing the value of NKU, community leaders created the Northern Kentucky Technology Commercialization Triangle (NKTCT) for the region surrounding the university campus, bounded by U.S.27/Alexandria Pike, Interstate 275 and the AA Highway. Development of this commercialization triangle includes privately funded initiatives focused on recruiting already

successful technology companies that have proven products/research and want to grow their business to the next level by partnering with a successful regional university. This effort will focus on attracting high-tech divisions of major corporations and successfully incubated technology companies.

EMERGENCY SERVICES

The Global Positioning System (GPS) is a system of satellites and equipment designed by the U. S. Department of Defense to permit personnel to determine their location anywhere on the face of the earth, 24 hours a day. In combination with GIS capabilities, emergency dispatchers can take advantage of GPS technology to more effectively dispatch police, fire, and ambulances to call locations. Emergency vehicles equipped with appropriate equipment can broadcast their locations to the central dispatching office every few seconds. In this way, they can be tracked in real time should further assistance or backup be required.

Another area which should be examined for its potential in emergency situations is the 800 megahertz radio system. This system is designed to permit either addressable communication from one station to another, or when necessary, to permit communication within or among groups of radios. In this way, emergency service providers could communicate individually and within their own organization under normal conditions, or in the case of a natural disaster or other emergency situation, could easily switch to a cooperative mode for coordinated response.

SUMMARY OF MAJOR RECOMMENDATIONS

1. This plan update recommends that a Town Center be developed which focuses on the cultural, recreational, and educational needs of the city. The goal of the Town Center is to serve a focus area for the community, comprising a public space area which is accessible to citizens. The Town Center should be planned and designed to become a recreational and cultural activity center - a civic space environment that creates a unique environment with a focus on the community. The proposed location for the Town Center is at the center of the city near the intersection of US 27/Alexandria Pike and East Alexandria Pike, an area which is easily accessible to many city residents. Additional information on the Town Center can be found in Chapter V.
2. It is recommended that the city collaborate with Campbell County in order to identify open space/recreational areas, pedestrian and bikeways, and methods of creating multi-modal linkages between recreational areas. In addition, to provide for closer recreational opportunities, this plan recommends that: (1) a new neighborhood park be developed southeast of Pooles Creek Road, in the vicinity of Aqua Drive; (2) a new neighborhood park be developed along the north side of the A-A Highway, south of Sturbridge subdivision; and (3) a new neighborhood park be developed within the residential development on Salmon Pass.

CHAPTER VII

UTILITIES MANAGEMENT

GENERAL

This Chapter provides information on the water supply and waste management services currently existing in the City of Cold Spring, and its planning area, and recommendations to improve water supply systems, sanitary sewerage facilities, and the management of storm water and solid waste systems. This update has been prepared in coordination with regional water and sewer agencies with reference to their long range plans. This chapter presents updated information from the 2000 Cold Spring Comprehensive Plan, and is intended to ensure that adequate and consistent services are provided to manage the anticipated growth and minimize pollution within the planning period.

WATER SYSTEMS

In 1996, the Kenton and Campbell County water boards executed a merger agreement and signed a twenty (20) year water supply contract with the Newport Water Works. Subsequently, the Kentucky General Assembly passed legislation allowing membership of a combined water service district board and, a short time later, the Kentucky Public Service Commission approved a merger of the two water boards. Most areas within Campbell County, with the exception of southern Campbell County, are currently served by the Northern Kentucky Water District (NKWD).

The NKWD is the largest publicly owned water district within the state of Kentucky. The NKWD provides retail and wholesale water service to approximately 60,000 customers in Northern Kentucky. In addition to supplying customers within Campbell County, the NKWD also provides the same services to nearly all of Kenton County, the Boone County Water District, the City of Florence, and the Greater Cincinnati/Northern Kentucky International Airport, within Boone County, Kentucky.

In Campbell County, including the entire area of the City of Cold Spring and planning area, customers are billed on a Direct Billing basis by the Northern Kentucky Water District with two (2) separate sources of supply provided by the Memorial Parkway Treatment Plant and Northern Kentucky Water District.

WATER SYSTEM INFRASTRUCTURE

The existing water system infrastructure comprises three (3) raw water supply facilities; three (3) water treatment plants, thirteen (13) distribution pumping stations, eighteen (18) distribution system storage tanks, and approximately one thousand (1,000) miles of transmission, distribution and service mains, which range in diameter from $\frac{3}{4}$ to 42 inches.

The NKWD draws raw water from both the Ohio and the Licking Rivers. The Ohio River Pumping Station No.1 supplies water to the Fort Thomas Treatment Plant. The Ohio River Pumping Station No.2 is the source of raw water for the Memorial Parkway Treatment Plant. The source water for the Taylor Mill Treatment Plant is the Licking River. The City of Cold Spring is situated within the Fort Thomas system. The Fort Thomas Treatment Plant is in generally good condition. The water flows by gravity from both the Fort Thomas plant and the Memorial Parkway plant to the Taylor Mill plant, where a pumping facility places it under pressure and transfers it to the distribution system.

There are a total of eighteen (18) storage tanks in the NKWD distribution system, located at seventeen (17) sites. One of these tanks is located in the city on Aqua Drive. The tank was constructed in 1990 and in excellent working condition. It is a steel hydropillar, 2.0 million gallon facility, with a sidewater depth of about 40 feet. The tank overflow is at EL. 1017.0. The tank is located on the same property as the District's headquarters. At the time this plan was prepared, the NKWD was preparing to sell the office portion of the property and transfer their operations to a central facility on Crescent Springs Road in Erlanger. The remainder of the property, inclusive of the water storage tank and storage yards, will be kept under NKWD ownership.

A second facility within the city is the Ripple Creek Pumping Station, which operated as a booster facility for southern Campbell County. The station is located in the northwest quadrant of the AA Highway and U.S. 27/Alexandria Pike interchange. The overall condition of the pumping station is excellent.

The current replacement cost of the transmission and distribution system is estimated to be approximately \$560 million. The average number of main breaks per year in 1997 to 2002 was 317, a break rate of 35.5 per year per 100 miles, which exceeds the American Water Works Research Foundation (AWWARF) goal of 25 to 30 breaks per 100 miles. The District replaced approximately 25.6 miles of water mains from 1998 through 2002. The most pressing issue is unlined cast iron water mains, which cause most customer complaints. If it is assumed that 50% of the cast iron mains are unlined, the estimated length of unlined cast iron would be about 233 miles. To line this amount of pipe over 20 years would require approximately \$4.4 million annually. The District's strategy for operation and maintenance of the piping system is generally adequate. The conventional flushing is not very effective in minimizing discolored water incidents. Unidirectional flushing will produce better results and the District's decision to execute a pilot unidirectional project is underway.

WATER SYSTEMS IMPROVEMENTS

The Northern Kentucky Water District (NKWD) is a leading water utility in Kentucky and the Midwest. However, impending new drinking water regulations, and evolving customer base, aging infrastructure, an expanding distribution system, and increasing financial pressures present challenges to preserving the high level of service the District has provided in the past. Recognizing the need for a comprehensive strategic plan, the NKWD embarked on an Asset Management Program (AMP) for the 2004-2020 planning period.

For the AMP, the water demand projections developed for the 2001 “Water System Master Plan” were utilized. For 2000 to 2020, the rate of population increase for Kenton and Campbell Counties is expected to average about 0.2% per year. The District has experienced steadily rising average day demands over the last fifteen years, increasing by about 36%. Recent changes in the NKWD service area will affect these demand rates in the future; these being the acquisition of the Newport System and the loss of Boone County and Florence as wholesale customers. Table 7-1 presents the total projected water demands for the NKWD system, including Newport.

Table 7-1
Projected NKWD Water Demands
2000 to 2020

Year	Average Day (mgd)	Maximum Day (mgd)
2000	37.8	62.4
2005	32.7	54.1
2010	35.1	57.8
2020	39.7	65.5

mgd – million gallons per day

Source: NKWD Asset Management Plan, Black and Veatch May 2004

Prepared By: Northern Kentucky Area Planning Commission, June 2005

Based on the demand projections, the District will have sufficient capacity from the three treatment plants (64 mgd combined) to meet maximum day demands for at least the next ten years, and possibly until 2020, depending upon the actual rate of growth. For planning purposes, it is assumed that additional treatment capacity will be needed by 2018.

Water Quality Laboratory

The NKWD opened a Water Quality Laboratory in 2000. It is an 8,000 square foot laboratory, equivalent to four separate water-testing laboratories under one roof. The Water Quality Laboratory is certified annually by the Environmental Protection Agency and is currently certified for 121 parameters. Each month analysts perform over 160 tests on samples gathered from more than 140 locations. The laboratory is currently operating very successfully, but updates to the equipment and facilities will be necessary to remain operable and in compliance in the future.

RECOMMENDED WATER SYSTEM PLAN

The primary tool for planning the District’s future is the Capital Improvement Program (CIP). The CIP is a strategy for addressing needs through year 2020. Each of the key components of the CIP are listed below:

- The CIP includes approximately \$64 million for improvements to water supply and delivery functions. This component has 73 projects to meet system service demands from growth and shifting population;
- Commitments of \$129 million for infrastructure renewal and replacement projects, the largest expenditure area of the five CIP components. These are projects identified for existing system elements which will extend their service life or will need to be replaced;
- There is one project in the CIP to enable the District to meet future drinking water regulations, which is the addition of Post-Infiltration GAC (granular activated carbon) at the Fort Thomas Treatment Plant, an effective method in removing chlorine and its by-products and volatile organic compounds (carbon based VOC's), both, man-made and naturally occurring including among others. This project has an estimated total cost of \$21 million, and is needed to comply with anticipated limits on disinfection byproducts in the system;
- A total of \$3.85 million in treatment enhancements are included in the CIP through four (4) projects that will improve finished water quality, provide additional treatment barriers, or enable more efficient operation of treatment facilities; and
- Approximately \$12 million in projects to augment operations and management systems. These seven projects cover the Central Facility, information technology systems and improvements, and laboratory enhancements.

In addition, the AMP recommends that the District take action to reduce its water main break rate by at least 20%. The number of breaks has increased at a rate of about 25 per year, which will double the current rate in about 14 years. It is also recommended to implement a comprehensive leak detection program to identify and prioritize areas with the most leaks with the objective to minimize water main breaks. The District should continue to clean and reline sound, unlined cast iron pipes. The relining program should be targeted for completion in 20 years. Water mains with a high frequency of breakage should be replaced and continue replacing all old steel transmission mains with ductile iron.

Urban Development And Water System Expansion

The Water System Plan is based on the interrelationship between urban growth and water system needs. Areas recommended for development have been evaluated on the ability to be provided with reasonable, economical, and adequate water system facilities. At the same time, improvement or expansion of water systems, particularly the staging of construction, should be designed to encourage planned and orderly growth and to discourage undesirable development patterns.

It is recommended that design criteria for distribution systems, proposed within new developments, be based upon the Insurance Services Office (ISO) Fire Suppression Rating Schedule and the National Fire Protection Association's (NFPA) Fire Protection Handbook. The following factors should be considered: Public Protection Fire Rating Classifications; Needed Fire Flows; Fire Flow Testing; Fire Hydrant Distributions; Water Main Sizes; and Fire Hydrant Spacing. Provision for an adequate water supply is essential to ensure that new developing and redeveloping areas do not reduce current fire protection class levels within each municipal fire department or fire protection district.

It is recommended that water distribution systems within existing and new developments and redevelopments be interconnected or looped wherever feasible, to improve circulation of potable water supply.

Amendments to water regulations, by the State of Kentucky, impose rigid requirements regarding water quality for drinking water, including improved measures for chemical testing and fire hydrant flushing to further ensure against stagnated areas causing lower levels of chlorine residual associated with health problems.

It is recommended that water distribution systems within existing and new developments and redevelopments be interconnected or looped wherever feasible, to improve circulation of potable water supply.

Recommended Improvements – Distribution Systems

Recommended improvements within this plan update are based on a twenty (20) year planning period. The Asset Management Program of the NKWD, prepared by Black & Veatch Corp. in May 2004 states that the NKWD will have sufficient capacity from the three (3) treatment plants to meet maximum demands for at least the next ten (10) years. For planning purposes, it is assumed that additional treatment capacity will be needed by 2018. The AMP contains the following Capital Improvements within, near, or to benefit Cold Spring over the next five year planning period:

2005

- Installation of a 36-inch water main at Licking River crossing.

2006

- Installation of a 20-inch water main on U.S. 27/Alexandria Pike, from the Ripple Creek pumping station to East Alexandria Pike.
- Installation of a 20-inch water main, from East Alexandria Pike to Main Street.
- Installation of an 8-inch water main along Gunkel Road, from Nine Mile Road to Fender Road

2007

- Installation of a 12-inch water main, along Four Mile Pike, from Poplar Ridge Road to Upper Eight Mile Road.

2008

- Provide back-up power, and install a standby generator at Ripple Creek Pumping Station.

2009

- Installation of a 12-inch water main along KY536 from U.S. 27/Alexandria Pike to Pond Creek Road.

Therefore it can be assumed that over the planning period of the next five (5) years, and into the foreseeable future, both the City of Cold Spring, and the planning area will be adequately served with sufficient potable water and adequate water flow for fire-fighting to permit the maximum potential for development. Map 8 illustrates the existing water service lines, storage tanks, and pumping stations; as well as the proposed future mains anticipated within the city.

The AMP also encourages the NKWD, other utilities with underground services, and the city of Cold Spring to work closely with each other to schedule roadway maintenance and repairs with the installation and/or repair of underground water facilities to minimize cost and inconvenience by combining activities wherever possible and avoid duplication of excavations. Individuals requiring more detailed information concerning water supply or facilities are directed to the office of the Northern Kentucky Water District located at 3049 Dixie Highway in Edgewood, Kentucky.

SANITARY SEWER SYSTEMS

LEGISLATION AND CONSOLIDATION

Sanitation District No.1 was created in 1946 pursuant to authority of Chapter 220 of the Kentucky Revised Statutes, as amended (the "Act"). In accordance with the Act, the District was established by the Director of the Division of Sanitary Engineering of the Kentucky Department of Health. The Act gives the District power to prevent and correct the pollution of streams, to regulate the flow of streams for sanitary purposes, to clean and improve stream channels for sanitary purposes, and to provide for the collection and disposal of sewerage and other liquid wastes produced within the District. The District has power under the Act to construct sewers, trunk sewers, laterals, intercepting sewers, siphons, pumping stations, treatment and disposal works and other appropriate facilities, and to maintain, operate and repair the same. Recent legislation adopted in 1998 by the General Assembly of Kentucky vests in the District broad power to regulate and finance storm water facilities in the service area.

Water quality standards and sewage treatment requirements established by the Ohio River Valley Water Sanitation Commission, as adopted in 1970, required secondary treatment of sewage for all waters ultimately flowing to the Ohio River from the area of the District. The Bromley treatment plant provided only primary treatment of wastewater. In order to provide secondary treatment without upgrading the Bromley plant, which was not feasible, or relying on small treatment plants, the District constructed the Dry Creek Wastewater Treatment Plant (the "Dry Creek Plant") with the proceeds of bonds and federal grants. The Dry Creek Plant entered service in 1979. This program also included the construction of major new interceptor sewers and pumping stations.

Legislation adopted by the General Assembly of Kentucky in 1994, codified as the Kentucky Revised Statutes (KRS) 220.135(2), mandated that effective July 1, 1995, the operational sewer and drainage systems of cities located within the jurisdictional boundaries of the District, together with all assets other than cash accounts (except where contractually connected to sewer-related debt) and all liabilities of such systems, as of January 1, 1994, became the property

of the District. Pursuant to the 1994 law, the District acquired the public sewer systems of 28 cities in Campbell and Kenton Counties, Kentucky.

On December 31, 1995, Boone County officially merged with the District, and subsequent to that date the cities of Independence and Alexandria transferred the ownership of their sewer lines to the District. As a result, the District now has ownership, operation and maintenance responsibility of all of the sewer systems in Northern Kentucky, with the exception of the sewer systems of the cities of Florence and Walton. Of these two cities, the District accepts and treats the wastewaters of Florence pursuant to contract.

STORM SEWER SYSTEMS

REGULATORY HISTORY AND BACKGROUND

In 1990, the U.S Environmental Protection Agency (EPA) developed storm water regulations for municipal storm sewer systems serving populations greater than 100,000 people and construction sites disturbing five or more acres. In December 1999, the EPA enacted the Storm Water Phase II Rule which applies to operators of regulated small municipal separate storm sewer systems (MS4s) that are located within the boundaries of a Bureau of the Census-defined “urbanized area” (UA) based on the latest decennial Census and construction sites disturbing one acre or greater. This classification is applicable to thirty five (35) communities in Northern Kentucky, including the City of Cold Spring. The Final Rule requires that the NPDES permitting authority (i.e. the Kentucky Division of Water) to develop and apply designation criteria to make a final determination of which communities are required to comply with this regulation.

In 1998, a feasibility study was completed by Woolpert, LLP under contract with the Fiscal Courts of Boone, Campbell and Kenton Counties. The results of this study indicated that the most cost effective and efficient approach for addressing local storm water management issues including compliance with the Federal Phase II Rule was to develop and implement a regional program under the management of a single entity. Sanitation District No.1 was identified as the entity that was most suited to assume the new role. In April 1998, the Kentucky legislature passed House Bill 651 which revised existing statutes to allow sanitation districts to provide storm water management services. This approach has been formalized through the development and adoption of the Interlocal Agreement to provide Kentucky Pollution Discharge Elimination System (NPDES) storm water discharge permit services, and other storm water related services in Boone, Campbell and Kenton Counties, Kentucky.

In March 2003, on behalf of the Phase II communities, Sanitation District No.1 submitted a storm water permit application to the Kentucky Division of Water. Sanitation District No.1 Storm Water Service Area boundary was determined and approved by Kentucky Division of Water. The service area is approximately 230 square miles in size and includes the current sanitary service area (excluding the City of Florence) and the urbanized areas of Boone, Kenton and Campbell counties as defined by the U.S. Census Bureau.

On August 1, 2003, Sanitation District No.1 initiated the Regional Storm Water Management Program - a hybrid program designed to maintain compliance with the federal Phase II storm

water regulations and prepare for the District to take over ownership and maintenance of the public storm sewer system. Currently, the cities and counties within the storm water service area own and maintain the public storm water systems, but the District plans to initiate a transfer of these assets by August 2008. To meet storm water regulations and to assist in the transfer of assets, the District has recently completed mapping of the entire open and closed channel storm draining system in Northern Kentucky. The inventory identified over 55,000 storm features, including 2,960 miles of open drainage system, 575 miles of closed storm sewer pipe, and 66 miles of culverts.

The Storm Water Management Program is an unfunded federal mandate and federal financial assistance is currently not available to help communities meet these new regulations. The costs to comply with the new requirements must be absorbed by the local citizens and businesses. As a result, Sanitation District No.1 developed a regional storm water utility that uses an impervious area rate methodology to charge a “Storm Water Surcharge” to applicable properties within Sanitation District No.1 service area. Under this approach, properties have been divided into two (2) classes – “Residential” (defined as one single family detached or duplex on one parcel) and “Non-residential” (all other properties). Properties classified as unimproved or agricultural by Campbell County Property Valuation Administration (PVA), will be exempt from the program.

The Storm Water Surcharge gives Sanitation District No.1 the ability to address the District’s responsibilities established in the Storm Water Management Plan and begin to address problems associated with the storm sewer infrastructure or caused by storm water runoff. These regulations supercede any previous regulations promulgated by the Cold Spring City Council and Planning Commission. In response to these regulations, the Cold Spring Subdivision Regulations were amended in November 2004 to reflect this change in responsibility. It is important to note that any development which was approved prior to August 2003 was “grandfathered in” and, as a result, any runoff problems associated with these developments are the responsibility of the city.

In early 2005, a legal challenge was filed in response to the Storm Water Surcharge. The potential liability in this suit impacted planned city storm water projects and could mean that cities are given back responsibility for managing storm water issues within their municipal jurisdictions. At the time this plan was prepared, there were no Cold Spring storm water projects impacted by the challenge.

SEWERAGE SYSTEM IMPROVEMENTS

The District's sanitary sewer system and storm water service area now covers approximately 218 square miles and serves a residential population of over 337,000, producing approximately 182,000 sanitary and storm customer accounts. The District owns, operates and maintains over 1,500 linear miles of combined and separated sewers, one major wastewater treatment plant (Dry Creek), 11 small treatment plants, 123 pumping stations and 15 flood pump stations.

The District is the second largest public sewer utility in Kentucky, with over 1,500 linear miles of maintained sewers. As the Table 7-2 demonstrates, both sewer line mileage and related responsibilities have increased substantially since 1981:

Wastewater is conveyed to the Dry Creek plant through an extensive system of interceptor sewers, pumping stations, and force mains. There are three main sections to the transport system, all of which carry flow to the Dry Creek Treatment Plant. The three sections are identified as (i) the Bromley Pump Station and force main, (ii) the Taylorsport Pump Station and force main and (iii) the Dry Creek interceptor.

The District's collection system consists of both combined sewers and separate sewers. The combined sewers are located primarily in the river cities of Dayton, Bellevue, Newport, Covington, Ludlow, and Bromley. However, a number of separate sewer systems discharge into the combined sewer system.

Table 7-2
Sanitation District No.1 Service Area
1981 to 2004

	1981	2004
Approximate Service Population	144,474	337,396
Miles of Sewer Line	69	1509
Employees	65	193
Average Water Treated (MGD)	19.5	39.6
Pump Stations	16	123
Catch Basins	0	4,230
Flood Pump Stations	0	15

There were 123 pump stations and 15 flood control pump stations in Boone, Campbell and Kenton Counties under the jurisdiction of the District as of March 2, 2005. These flood control systems prevent river water from entering the sanitary sewer system when the river is at flood stage. If river water intruded the system, the river cities would experience flooding and backups.

The District has expended and continues to expend significant moneys and resources to improve its sewage treatment and collection system, not only to serve its current and future customers but also to preserve and enhance water quality and comply with all applicable environmental laws.

IMPERVIOUS SURFACES AND WATER QUALITY

The purpose of the regulations is to improve water quality. The Phase II Rule is intended to improve the nation's waterways by reducing the quantity of pollutants that storm water picks up and carries into storm sewer systems during storm events. The areas serviced by municipal separate storm sewer systems (MS4s) often contain a large amount of impervious surfaces, such as buildings, pavement or other material that prevents storm water from filtering through the soil. There is a significant relationship between the amount of impervious surfaces and associated runoff with the deterioration of water quality. The total area of impervious surface within the City of Cold Spring is approximately 430 acres which comprises paved roads, driveways, parking lots, sidewalks and rooftops.

Pollutants, like motor oil, collect on these surfaces until it rains and then are carried into the storm sewers, which lead directly to rivers, lakes and streams. Other examples of storm water pollutants are household cleaners and lawn chemicals. Runoff from construction sites also represents a significant contributor to water quality degradation. The United States Environmental Protection Agency has also found that in a short period of time, construction sites can contribute more sediment to streams than can be deposited naturally during several decades, resulting in the destruction of aquatic habitat.

In Phase II communities, such as Cold Spring, owners and operators of small MS4s, are required to reduce the discharge of pollutants to waters of the State and United States to the “maximum extent practicable” to protect water quality. At a minimum, the permit will require a Storm Water Management Program that addresses the following issues:

- Specify Best Management Practices (BMPs) for six (6) minimum control measures and implement them to the “maximum extent practicable”;
- Identify measurable goals for these control measures;
- Develop an implementation schedule for these control measures or frequency of activities; and
- Define the responsible entity to implement these control measures.

The six (6) minimum controls as defined by EPA are as follows:

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Control of Construction Site Runoff
- Post-construction Storm Water Management
- Pollution Prevention and Good Housekeeping

Storm Water Inflow and Infiltration

As identified in the 20-Year Regional Facility Plan, the District is experiencing high levels of inflow and infiltration (I/I) in the separated sewer system. If rainwater continues to enter the sanitary system while the population in Northern Kentucky continues to grow, the number of treatment plant bypassing events will increase. To address this problem, extensive inflow and infiltration (I/I) reduction plans have been developed to address both public and private sources. Problem drainage basins have been identified and prioritized in the 20-Year Regional Facility Plan.

Defective pipes and deteriorated pipe joints, service connections, manhole walls and frames all allow rainwater to enter the system. To eliminate these public sources of I/I in the separated sewer system, the District has developed a Sewer System Rehabilitation Program. This program identifies and addresses specific locations in need of repair. Over the next five years, \$17 million is budgeted to address these problems.

Adding to the inflow problems are the many illegally connected downspouts, driveway drains or sump pumps. A pilot program to minimize the amount of private source storm water entering the separate system was conducted in 2000. This private source removal program focused on the removal of downspout connections from the sanitary system. Preliminary flow monitoring results show a significant reduction in the amount of storm water entering the system during rain events.

Sanitary and Combined Sewer Overflows

As mentioned above, storm water inflow can create sanitary sewer overflows (SSOs), which are not authorized under state and federal laws and may create conditions that are hazardous to public health and welfare. The District operates over 1,200 miles of separate sanitary sewers tributary to the Dry Creek Wastewater Treatment Plant, which are subject to excessive inflow and infiltration, causing the affected sewers to discharge untreated sewage or other wastes into overflow points and directly into streams.

In April 1994, the EPA issued its Combined Sewer Overflow Control Policy (59 FR 18688). The Policy provides guidance to permit holders with Combined Sewer Overflows (CSOs), NPDES authorities, and state water quality standards authorities on coordinating the planning, selection, and implementation of CSO controls that meet the requirements of the Clean Water Act. These regulations require the development and implementation of both minimum controls and longterm controls. The District has already implemented the required minimum controls.

The District is working with the KDOW to establish appropriate solutions to both SSOs and CSOs. In addition to I&I rehabilitation, the District is developing a Long-Term Control Plan that will identify specific measures to address these overflows. As part of this effort, in 2000 the District conducted field surveys of approximately 10,000 manholes throughout the District Service Area. Data collected from this study is being used to develop detailed hydraulic computer models which will serve as the basis for the assessment tool for cost-effective measures that will control and/or eliminate overflows. The Long-Term Control Plan will take several years to complete and will eventually include a phased/prioritized schedule of capital improvements that will address the overflows throughout the entire service area. The Long Term Control Plan may be combined with other watershed wet-weather plans.

In general, significant capital investments will be required to implement long-term controls that address both CSOs and SSOs. Over \$2.4 million has been budgeted for SSO and CSO controls over the next five years.

20-Year Regional Facility Plan

The unprecedented expansion of the District both as to physical facilities and duties and responsibilities, has highlighted the need for rehabilitation and reconstruction of older, existing facilities and the necessity for construction of extensions, betterments and enhancements to improve water quality throughout the service area and to provide uniform, quality services to the District's customers.

In 1998, the District prepared and adopted a 20-Year Regional Facility Plan, to provide an action plan for the future. This plan details steps the District will take to improve water quality, maintain environmental compliance and to address system-wide capacity issues. A comprehensive review of the collection system showed that the current dry weather capacity is sufficient, but available capacity decreases during wet weather events due to I/I in the separated system. Northern Kentucky's growing population will generate increased wastewater flows, adding to the capacity problem. The 20-Year Regional Facility Plan addresses these issues, detailing the procedures to prepare for future growth, phase out package treatment plants and failing septic systems, reduce storm water I/I, eliminate SSOs, address CSOs, and to rehabilitate and improve deteriorating sections of the sewer system.

In formulating the 20-Year Regional Facility Plan, consideration has been given to ultimate land use and population growth in order to forecast and determine ultimate wastewater flow. Although sewers are considered to have a life of 50 years, from a practical standpoint the useful life is much longer. For this reason, interceptors must be sized based on ultimate wastewater flow. The 20-Year Regional Facility Plan recommends a prioritized scheduled plan of action which represents the most cost effective alternatives to collect, transport and treat future wastewater flow, to identify and repair deteriorated systems, and to remove excessive amounts of infiltration and inflow.

RECOMMENDED SEWERAGE SYSTEM PLAN

Eastern Regional Wastewater Treatment Plant

In an effort to treat the waste flows and overloading conditions of the Alexandria area, facilitate regionalization, and eliminate local package wastewater treatment plants that are potentially detrimental to the environment, Sanitation District No.1 initiated plans to construct the Eastern Regional Wastewater Treatment Plant (ERWWTP). The ERWWTP will be a secondary treatment plant to initially serve the southern Campbell County until 2024, when it is expected to treat an average daily flow of six (6) mgd from residential, commercial, industrial and institutional customers in its service area. The plant will discharge to the Ohio River in compliance with a permit issued by the Kentucky Division of Water in 2004. By 2014, a review of future treatment requirements will again be needed to determine the timing and capacity of additional treatment measures.

The four (4) million gallons per day wastewater treatment plant is to be located near the city of Alexandria. The new wastewater treatment plant will incorporate state-of-the-art process facilities including an equalization basin, oxidation ditch, ultraviolet disinfection and odor control. The treated effluent from the plant will flow through a five-mile long pipeline for discharge into the Ohio River.

The District began construction of the Eastern Regional Wastewater Treatment Plant in the Fall of 2004. Construction is expected to take two and one-half years. Once the new treatment plant goes into operation, a building moratorium that has been in effect for the area to be served by the new treatment plant for approximately 10 years will be lifted by the Commonwealth of Kentucky. This will allow economic growth to resume in the area.

Western Regional Wastewater Treatment Plant

Design of the new Western Regional Wastewater Treatment Plant is approximately 90% complete. The new 15 million gallons per day wastewater treatment plant is to be located near the City of Bellevue in Boone County, Kentucky. However, the design of the new wastewater treatment plant has been temporarily interrupted due to lawsuits filed by the current property owner where the treatment plant will be located.

Once the District has completed acquisition of all parcels of property needed for the new wastewater treatment plant, it will take approximately five years to complete the treatment plant project. Phase II and Phase III environmental and archaeological investigations must be completed at the site, in addition to more detailed geotechnical activities. This will take about one year to complete followed by a three and one half years construction period. The new Western Regional Wastewater Treatment Plant is expected to go into operation during 2009 or 2010.

Urban Development and Sewerage System Capacity

The Sewerage System Plan is based on the relationship between urban growth and sewerage system needs. Areas recommended for development/redevelopment are evaluated based on the economical and adequate centralized sewerage systems. At the same time, improvements and expansion of centralized sewerage systems, particularly the staging of construction, should be designed to encourage planned and orderly growth and to discourage undesirable development patterns. This current system provides adequate capacity for any development within the city or the planning area with the exception of the area immediately adjacent to the northeast quadrant of the AA Highway and U.S. 27/Alexandria Pike interchange where capacity is nearing saturation with the large scale commercial development taking place. However growth may continue in this area with temporary modifications to the sewer system until 2007, at which time additional capacity will be provided by the new ERWWTP and associated pump stations. Map 9 illustrates the sewerage system within the city.

FiveYear Capital Improvements Program

The five (5) year program, which is reviewed and updated each year, represents a portion of the 20-Year Regional Facility Plan. Legislation adopted by the General Assembly of Kentucky in 1998 authorized sanitation districts, including the District, to develop and implement plans for the collection and disposal of storm drainage. In May 2003, the District officially launched its regional storm water management utility. The District expended approximately \$11 million in the establishment of the utility including the completion of a comprehensive inventory and condition assessment of the storm sewer system located in the 240 square mile service area. Total expenses for the Storm Water Management Program over the next five years are estimated to be approximately \$26.5 million.

The 20-Year Regional Facility Plan and its resulting capital improvements program is subject to annual review and modification. Although Management of Sanitation District No. 1 believes the estimates of costs of both the 5-Year Program and the 20-Year Regional Facility Plan to be

reasonable and accurate, actual construction costs may vary from the estimates shown in this Official Statement as a result of a variety of factors, including changes in business conditions, environmental requirements, government regulations, design changes, equipment delivery schedules and the changing costs of labor, equipment and material.

The five (5) year program will provide funding for projects in the following general categories:

1. Upgrades at the existing Dry Creek Wastewater Treatment Plant;
2. Construction of the new Eastern Regional Wastewater Treatment Plant and related facilities;
3. Design and partial construction of the new Western Regional Wastewater Treatment Plant and related facilities;
4. Reduction of inflow and infiltration and SSO's;
5. Development and partial implementation of the Wet Weather Long Term Control Plan;
6. Pump station and sewer line rehabilitations and upgrades;
7. Continued implementation of the Storm Water Program including capital improvement upgrades; and
8. Miscellaneous activities.

In addition, it is recommended that improved regulations mandating tie-ins to new centralized sewer systems be initiated, thereby eliminating individual on-site sewage systems through Sanitation District No.1 Rules and Regulations, Board of Health regulations, and/or city county ordinances. Mandates are needed to require owners of on-site systems to connect to new centralized systems to prevent further sickness and disease which result from improperly working on-site sewage disposal systems.

In addition to providing centralized sewer systems in areas presently served by alternative systems (such as small waste water treatment plants and on-site sewage disposal systems), this plan update recommends expansion of existing systems to provide adequate centralized systems, according to a prioritized schedule, to all areas of proposed urban development within the city. Map 9, Sewerage System Plan, has been updated to reflect recommended modifications to the previous Sewer System Plan Update.

It is recommended that Best Management Practices (BMPs) for all construction activities including non-point source pollution, be implemented in concert with state and local regulatory agencies. Documented practices and preventative measures to control on-site erosion, if implemented properly, have been successful in preserving topsoil and improving water quality. The city can play an important role in this area by participating in Sanitations District No. 1 municipal staff education program, and by ensuring storm water considerations are factored into the development approval process.

It is recommended that Best Management Practices for all construction activities including non-point source pollution, be implemented in concert with state and local regulatory agencies.

SOLID WASTE SYSTEMS

In consideration of the future growth and development of Cold Spring, planning for an effective solid waste management system is imperative for ensuring that public health and environmental sustainability is maintained. The City of Cold Spring is part of a larger county-wide waste management program. The three (3) Northern Kentucky counties of Boone, Campbell and Kenton are part of the Northern Kentucky Solid Waste Management Area (NKSWM). The Area was created with the goal of better coordinating regional solid waste programs such as education, cleanup events, recycling events, and reports as well as improving communication between the three counties.

The NKSWM is administered by a Governing Board, a Technical Advisory Committee, and various subcommittees operating with a staff including a Solid Waste Coordinator located in each county. The Solid Waste Coordinator deals with issues that include recycling programs, composting, landfill and disposal issues, household hazardous waste, education and community affairs, presentations, illegal dumping, litter abatement, enforcement, and resource material.

REGULATORY HISTORY

Solid waste management changed significantly with enactment of the Federal Resource Conservation and Recovery Act (RCRA) of 1981. New emphasis was placed on organizational structure, resource conservation, recycling, upgrading landfills, and resolving the open dumping problem. Since that time, numerous amendments have been made to the Kentucky Revised Statutes (KRS) 109 and 224, as a result of Senate Bill 2 (1990). These statutes placed primary responsibility for solid waste management on Kentucky's 120 counties and fiscal courts to prepare plans, identify existing systems, make projections, and ensure adequate disposal of solid waste materials within a twenty (20) year planning period. These same statutes delegate administrative authority to cities to contract with private haulers for collection and disposal of non-hazardous solid wastes.

More recent amendments to KRS 224.43-010 were signed into law in 2002 as a result of House Bill 174. The bill requires:

- the closure and characterization of municipal solid waste facilities that ceased operations before July 12, 1992;
- priority funding initiatives to encourage solid waste management districts to conduct educational outreach efforts regarding the proper disposal of solid waste;
- permits and reporting to ensure the proper collection and disposal of solid waste;
- elimination of all illegal open dumps; and
- litter abatement on state and county rights-of-way.

The bill also established \$1.75 per ton environmental remediation fee to be collected beginning January 1, 2003 to be paid quarterly by owners and operators of transfer stations or municipal solid waste facilities. In addition, all solid waste collectors are required to register and report annually to the counties in which they provide service. This bill also establishes the Kentucky

Pride Fund to be distributed to counties for litter abatement and elimination of open dumps. Lastly, the bill authorizes solid waste coordinators to enforce criminal littering laws and gives the county 60% of the fines imposed.

EXISTING SOLID WASTE SYSTEMS

The City of Cold Spring is dependent upon private contracts for the collection and disposal of solid wastes. Currently, a privately owned landfill near Butler, within Pendleton County, owned by Rumpke of Kentucky, Inc., is used for the disposal of solid wastes generated within the county via contractual agreements. Cold Spring also participates in a regular curbside recycling program.

In 2003, the NKSWM completed the 2003-2007 Northern Kentucky Solid Waste Plan which was an update to the 1998-2002 solid waste plan. These plan updates are prepared in order to comply with the Natural Resources and Environmental Protection Cabinet, Division of Solid Waste Management Guidelines. In addition to the Solid Waste Management Plan, each county is required to submit an annual report to the Division of Waste Management for approval. The latest report for the district covered the reporting period from January to December 2003.

Since the 2000 Plan Update, a number of solid waste developments impacting residents in Campbell County, including the City of Cold Spring, have occurred. These developments are as follows:

- Separate solid waste ordinances were administered by the fiscal court and each legislative body within the county. Rumpke is the hauling contractor for the City of Cold Spring. Frequencies of collection is once per week. The existing contract covers three (3) years between July 2003 and June 2006.
- There are four (4) waste disposal facilities for solid waste in Campbell County: (1) Bavarian Trucking Landfill (Boone County); (2) Rumpke of Kentucky (Pendleton County); (3) Rumpke (Colerain, OH); and (4) Epperson Waste Disposal (Grant County). State regulations regarding landfills were upgraded to include specifications for synthetic liners. Landfill cells must include filter fabric over other materials including granular and clay layers for proper drainage and protection of the water table.
- As part of the NKSWM annual report, open dumps are to be documented and characterized. The total number of dumps reported for the three (3) county solid waste management area in 2003 was 195, out of which 113 were cleaned. Four (4) of these sites were identified in Campbell County. White goods and recycling drop-off centers have been made available via public works departments and at other various locations within the county.
- The Northern Kentucky Household Hazardous Waste Action Coalition was created. The coalition is dedicated to spreading awareness of the proper disposal/recycling of household hazardous waste in the home.

RECOMMENDED SOLID WASTE PLAN

Recommended measures within this plan are based on a twenty (20) year planning period. Specific recommendations are as follows:

- It is recommended that the mission, goals, objectives, and tasks within the multi-county plan for the NKSWMMA be implemented. Input from Campbell County, having the second largest population and number of cities, has significant impact on the Multi-County Solid Waste Management Plan administered by a solid waste coordinator. Solid waste generation within Campbell County, including the City of Cold Spring, demands improved measures to coordinate all solid waste functions to ensure adequate protection of the environment, and avoid duplication of services as an integral part of the NKSWMMA.
- It is recommended that a uniform comprehensive model ordinance regulating solid waste management, including storage, collection, transportation, disposal, open dumping, blight, litter, public nuisances, [etc. be](#) drafted and adopted by the fiscal court and all local governmental bodies. Developing a uniform model ordinance applicable to the entire county would resolve conflicts with existing regulations and develop a much better framework for solid waste management at a regional level.
- It is recommended that solid waste service be provided under government authority to all areas of the county. Mandatory universal contract collection is not yet provided to all residents under governmental authority, which is an environmental concern.
- It is recommended that regional resource recovery facilities, including transfer stations and recycling technology, be provided to serve Campbell County, including the City of Cold Spring. Regional facilities, including transfer stations and other such technology for material separation, recycling, processing, and compaction, will reduce long haul distances to landfill sites and create revenue through tipping fees for capital projects for funding the NKSWMMA for Campbell County.
- It is recommended that emphasis on voluntary and mandatory recycling programs, which involve material separation and reduction, be continued. Improved resources conservation and recycling methods reduce landfill space and further provide for materials recovery to enhance the supply of goods and services.

TELECOMMUNICATIONS

CELLULAR TOWERS, PCS FACILITIES, AND SATELLITE DISHES

Sites for cellular phone towers, Personal Communication Services (PCS) equipment and other facilities could be evaluated through the use of Geographic Information Systems (GIS) technology. In particular, the concept of sharing facility sites among various cellular and PCS providers, where possible, has great potential for reducing the number of towers necessary to serve the area's communication needs. It is important for the City of Cold Spring, due to its

central location with several potential hilltop locations, to strongly encourage sharing or collocation of these facilities to minimize their proliferation within the city. Siting of cellular phone towers, PCS facilities and satellite dishes should be subject to local review and approval.

The Federal Communications Act of 1996 has severely restricted, to the point of preempting local control, the ability of local authorities to control satellite dish placement for aesthetic reasons. Local authorities have no control over satellite dishes 1 meter (3.28 feet) or less in diameter in residential areas and 2 meters (6.56 feet) or less in commercial areas.

Prior to July 15, 1998, cellular towers and their facilities were only subject to local review and control when located in Jefferson County, KY. Presumably this will also be the case with the new PCS facilities which will require much higher densities to provide for adequate coverage. Effective July 15, 1998, local review and control authority has been extended statewide under the jurisdiction of local planning commissions, where applicable, per House Bill 168.

Infrastructure within the public right-of-way is still subject to local control. However, under current state and federal restrictions regarding cellular, PCS and satellite dish technologies, it is a simple matter to bypass local review and control as none of these technologies are restricted by right-of-way access. Legislative initiatives in this area should be examined and considered.

Sites for cellular phone towers, Personal Communication Services (PCS), satellite dishes, and other similar technologies which may be developed, should be examined and evaluated through technologies such as GIS and computer imaging. GIS can be used to locate optimal sites for facilities while computer imaging permits creation of visual models of proposed facilities. Service providers themselves use these technologies when making presentations before boards and commissions in areas of the country having local review and control authority.

Service providers should be required, where feasible, to share towers and site facilities in order to minimize their proliferation. Aesthetic issues are prominent and will need to be addressed at the local level. It will be important also, as new technologies make such towers or other facilities unnecessary to assure their removal and disposal.

The following design standards should be used when evaluating the siting of such facilities. Where the planning commission finds that circumstances or conditions relating to the particular site are such that one or more of the design standards listed below are not necessary or desirable for the protection of surrounding property or the public health, safety, and general welfare, and that such special conditions or circumstances make one or more said design standards unreasonable, the planning commission may modify or waive such requirement, either permanently or on a temporary basis. Any such modification or waiver should be requested by the applicant, and the applicant should submit a written justification for each requested modification or waiver.

- All structures, except fences, should be located at least fifty (50) feet from the property line or lease line of any residentially zoned property.

- A cellular antenna tower, or alternative antenna tower structure, may be constructed to a maximum height of two hundred (200) feet regardless of the maximum height requirements listed in the specific zoning district. This also applies to any tower taller than fifteen (15) feet constructed on the top of another building or structure, with the height being the overall height of building/structure and tower together, measured from the grade to the highest point. The planning commission may allow antennas greater than two hundred (200) feet in height upon review of the applicant's justification.
- When any cellular antenna tower, or alternative antenna tower structure, is taller than the distance from its base to the nearest property line or lease line, the applicant should furnish the planning commission with a certification from an engineer registered in the Commonwealth of Kentucky that the tower will withstand winds of seventy (70) mile per hour, in accordance with current ANSI/EIA/TIA standards.
- Cellular antenna towers should not be illuminated, except in accord with other state or federal regulations.
- The site should be unstaffed. Personnel may periodically visit the site for maintenance, equipment modification, or repairs. To accommodate such visits, ingress/egress should only be from approved access points.
- A minimum of one (1) off-street parking space, per provider, should be provided on the site.
- Woven wire or chain link (eighty (80) percent open) or solid fences made from wood or other materials (less than fifty (50) percent open), should be used to enclose the site. Such fences should not be less than four (4) feet in height nor more than eight (8) feet in height. The use of barbed wire or sharp pointed fences should be prohibited. Such fence may be located within the front, side, or rear yard.
- Screening should be required where the site in question abuts residentially zoned property. Screening should be provided by evergreen trees, with a minimum height of six (6) feet, planted in a staggered pattern at a maximum distance of fifteen (15) feet on center. The screening should be placed in an area between the property line, or lease line, and a ten (10) foot setback.
- Any site to be purchased or leased for the installation of a cellular antenna tower, or alternative antenna tower, and ancillary facilities, should comply with the minimum lot size requirements of the zone in which the facility is to be located, provided that such area should not be required to exceed one-half (1/2) acre.
- Surfacing of all driveways and off-street parking areas should comply with the requirements of the city's zoning ordinance.

- There should be no signs permitted, except those displaying emergency information, owner contact information, warning or safety instructions, or signs which are required by a federal, state, or local agency. Such signs should not exceed five (5) square feet in area.
- All new cellular antenna towers should be designed and constructed to accommodate a minimum of three (3) service providers.
- All option and site lease agreements should contain non exclusive co-location clauses.

The following is a list of criteria that is recommended to be used when evaluating the siting of such facilities:

- Cellular Phone and PCS Service Providers should be required to co-locate or share tower/facilities with other providers in order to minimize the proliferation of towers/facilities.
- Wherever possible, service providers should be required to use existing structures or facilities which meet all of the requirements of the proposed installation. For example, water towers, radio and television towers, tall buildings, commercial signs, church steeples, etc., in order to minimize the proliferation of new towers/facilities.
- Wherever possible, siting of such facilities should be required to be located in areas identified for industrial or commercial type uses.
- When located in residential areas, such facilities should be heavily screened from view and towers should be camouflaged or designed in such a manner to blend into the surrounding area. Changes in topography of the land can be used effectively to separate such facilities from adjacent residential uses.
- To provide for proper separation, adequate setbacks should be provided based upon adjacent land uses.
- The type of tower (e.g., monopole, carillon, etc.) should be evaluated based upon adjacent land uses and character of affected areas.
- When the facility is no longer required, it should be removed by the owner and the land restored to its natural state.
- Agreement with the various elements of the adopted comprehensive plan, and where applicable, any other adopted plan.
- Extent to which the proposal is consistent with the purposes of these regulations.
- Adequacy of the proposed site, considering such factors as the sufficiency of the size of the site to comply with the established criteria, the configuration of the site, and the

extent to which the site is formed by logical boundaries (e.g., topography, natural features, streets, relationship of adjacent uses, etc.).

- Extent to which the proposal responds to the impact of the proposed development on adjacent land uses, especially in terms of visual impact.
- Extent to which the proposed cellular antenna tower camouflaged (i.e., use of "stealth technology").
- Extent to which the proposed facility is integrated with existing structures (i.e., buildings, signs).

Map 10 shows the location of existing telecommunication towers and new tower locations which have been submitted to the Cold Spring Planning and Zoning Commission.

UTILITIES TECHNOLOGY

Technologies are now available which make it possible to read utility meters electronically and have the monthly readings sent to the utility headquarters. In some areas these systems are already in use. Utility service providers should be encouraged to examine such developments when installing new service capabilities.

If electronic meter reading is implemented, it may be feasible to implement other capabilities through the same system, or to install multiple systems so that if one fails, the other will back it up. With more immediate feedback of utility service usage, the utility service providers may be able to use this information to better design their systems to handle peak loads/capacities and better balance service demands. The feasibility of these suggestions is unknown at this time, but the potential benefits are significant, and the decision makers must become aware of the many new possibilities on the horizon.

Geographic Information Systems (GIS) and mapping is a critical component of sewer maintenance. Accurate maps help field crews identify the source of the problem quickly and prepare crews for the type of service repairs which are necessary. New computer hardware and software utilize GIS technology. The GIS provides blueprint layout of utilities, roads and property lines. The GIS centralizes information about sewer lines allowing public service agencies to stay current on changes that may affect sewer maintenance.

The use of GIS can help site facilities such as landfills, or to optimize school bus, public transit or solid waste pickup routes. Use of this technology can provide a more tangible basis for decision making which can otherwise appear arbitrary if not properly explained.

Maintenance of facilities can be aided through the use of GIS and Automated Mapping/Facilities Management Systems (AM/FM). Such systems are designed to store highly accurate base maps of a region and any related information about the maps in a computer database. These maps are separated into "layers" such as roads, buildings, property lines, and so on. In this way, it is possible to deal with a single layer or with multiple layers of information.

SUMMARY OF MAJOR RECOMMENDATIONS

1. It is recommended that the city encourage water distribution systems within existing and new developments and redevelopments to be interconnected or looped wherever feasible, to improve circulation of potable water supply. It is also recommended that the improvement or expansion of water systems, particularly the staging of construction, should be designed to encourage planned and orderly growth and to discourage undesirable development patterns.
2. It is recommended that design criteria for water distribution systems, proposed within new developments, be based upon the Insurance Services Office (ISO) Fire Suppression Rating Schedule and the National Fire Protection Association's (NFPA) Fire Protection Handbook.
3. This plan encourages the NKWD, other utilities with underground services, and the city of Cold Spring to work closely with each other to schedule roadway maintenance and repairs with the installation and/or repair of underground water facilities to minimize cost and inconvenience by combining activities wherever possible and avoid duplication of excavations.
4. It is recommended that improved regulations mandating tie-ins to new centralized sewer systems be initiated, thereby eliminating individual on-site sewage systems through SD1 Rules and Regulations, Board of Health regulations, and/or city county ordinances. Mandates are needed to require owners of on-site systems to connect to new centralized systems to prevent further sickness and disease which result from improperly working on-site sewage disposal systems.
5. In addition to providing centralized sewer systems in areas presently served by alternative systems (such as small waste water treatment plants and on-site sewage disposal systems), this plan update recommends expansion of existing systems to provide adequate centralized systems, according to a prioritized schedule, to all areas of proposed urban development within the city.
6. It is recommended that Best Management Practices (BMPs) for all construction activities including non-point source pollution, be implemented in concert with state and local regulatory agencies. The city can play an important role in this area by participating in SD1's municipal staff education program, and by ensuring storm water considerations are factored into the development approval process.

CHAPTER VIII TRANSPORTATION

GENERAL

The transportation plan element includes recommendations concerning highways, mass transit, air travel and pedestrian and bike facilities. This chapter will review OKI's (Ohio-Kentucky-Indiana Regional Council of Governments) 2030 Regional Transportation Plan, the 2003 Campbell County Transportation Plan followed by plan recommendations for the City of Cold Spring. The City of Cold Spring benefits from the service of a regionally provided mass transit system, via the Transit Authority of Northern Kentucky (TANK), and services provided by other agencies such as the Cincinnati/Northern Kentucky International Airport. The City of Cold Spring also enjoys excellent access to the interstate highway system, via the AA Highway and U.S. 27/Alexandria Pike.

OKI REGIONAL TRANSPORTATION PLAN

Transportation and planning improvements within the Northern Kentucky and Greater Cincinnati area are coordinated through the planning efforts of the Ohio-Kentucky-Indiana Regional Council of Governments (OKI). OKI is the metropolitan planning organization (MPO) for the Greater Cincinnati/Northern Kentucky area responsible for transportation planning and air quality conformity. In August 2001, OKI updated its transportation plan in a document entitled *2030 Regional Transportation Plan*. The Metropolitan Transportation Plan was last updated in April 2000. The *2030 OKI Regional Transportation Plan* is the primary policy setting document prepared and maintained for the entire region. It is the basis for many other more specific plans that serve to provide more detailed review and analysis of transportation issues. The overall purpose of these efforts is to help assure that all modes of transportation are considered as the area prepared to meet future transportation and land use growth needs.

The Transportation Equity Act for the 21st Century (TEA-21) maintains the core metropolitan and statewide transportation planning requirements that were present under the Intermodal Surface Transportation Efficiency Act (ISTEA). The key change in the new legislation is the consolidation of 16 metropolitan and 23 statewide planning "factors" into seven broad "areas" to be considered in the planning process, both at the metropolitan and statewide level. These areas have guided this plan's development and are given consideration through discussion in various aspects of the plan:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency.
2. Increase the safety and security of the transportation system for motorized and nonmotorized users.
3. Increase the accessibility and mobility options available to people and freight.

4. Protect and enhance the environment, promote energy conservation, and improve quality of life.
5. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
6. Promote efficient system management and operation.
7. Emphasize the preservation of the existing transportation system.

The impacts of the federal directives of TEA-21 are evident in the regional plan's recommendations. The recommendations place emphasis on expanding modal alternatives and improving the transportation system's efficiency. It must be noted however that at the time of this plan update reauthorization of TEA-21 is pending before the U.S. Congress and specific elements and priorities described herein may be changed.

CAMPBELL COUNTY TRANSPORTATION PLAN

The Campbell County Transportation Plan was updated in September 2003. The plan is designed to provide more detail on transportation needs in Campbell County than those discussed in the *2030 OKI Regional Transportation Plan*. This plan was prepared as an inclusive document for the entire Campbell County community.

A uniform street addressing system was adopted by the Campbell County Fiscal Court on June 25, 2003 and took effect on August 1, 2003. This was in response to a number of problems which were identified in the address numbering system used in the unincorporated area of the county (i.e. rural routes and box numbers), and thus posed a problem for dispatching police, fire and other emergency vehicles. The following street names within the vicinity of Cold Spring were changed as part of this effort:

Old Road Name	New Road Name
US 27	Alexandria Pike
Old Licking Pike	Austin Drive
Old State #1 East	Harvest Trail
Old State #1 West	Autumn Lane
Pooles Creek #1 Road	Pooles Creek Road
Pooles Creek #2 Road	Dry Creek Road
Old Pooles Creek Road	Mission Way
Ripple Creek Road	Cold Stream Road
N Ripple Creek Road	Ripple Creek Road
Trapp-Murnan Road	Murnan Road

Roadway improvements must first go through the OKI review process to be included on the Unscheduled Needs List, Kentucky Transportation Cabinet Six-Year Plan, OKI Plan and Transportation Improvement Program, at which time funding is identified. The following

projects in the vicinity of Cold Spring are identified in the plan as either programmed (funded) non-programmed projects (i.e. they are without an identified source of funds):

Programmed Roads

- John's Hill Road – Reconstruct and widen John's Hill Road from Martha Layne Collins to I-275 and reroute University Drive
- New Technology Triangle/NKU access road from the AA Highway from Pooles Creek Road north.

Non-programmed Roads

- Pooles Creek Road – reconstruct and add a climbing lane from U.S. 27/Alexandria Pike to the AA Highway.
- AA Highway – add two lanes from I-275 to U.S. 27/Alexandria Pike.
- East Alexandria Pike – reconstruct from U.S 27/Alexandria Pike to Cline Elementary.

HIGHWAY

TRAFFIC FLOW INFORMATION

The Kentucky Transportation Cabinet (KYTC), Department of Highways, periodically conducts traffic counts on federal and state roadways. Table 8-1 identifies those roadways, within the City of Cold Spring, where the KTC has conducted traffic counts. Table 8-1 indicates:

- That traffic along U.S. 27/Alexandria Pike has increased an average of approximately twenty-three (23) percent since 1998.
- That traffic along the AA Highway has increased approximately twenty-eight (28) percent since 1995.
- That traffic along Pooles Creek Road has increased an average of approximately twenty-six (26) percent since 1998.



In addition to the projected population growth within the city, regional factors will also have an impact on traffic flow in Cold Spring. For instance, the Eastern Regional Wastewater Treatment Plant is expected to go into operation in 2006. A building moratorium that has been in effect for the Alexandria and unincorporated areas to be served by the new treatment plant will be lifted by the Commonwealth of the Kentucky and will allow economic growth to resume in the area. The recommended highway improvements contained within this chapter have been prepared with these factors in mind.

RECOMMENDED HIGHWAY IMPROVEMENTS

Map 11 shows the recommended highway improvements for the City of Cold Spring. These recommended improvements are divided into two categories: Improvements to Existing Roads and New Roads To Serve Future Development.

Improvements To Existing Roads

Upgrade of Existing Arterial Streets

U.S. 27/Alexandria Pike

- Due to the existing and anticipated traffic volume and the difficulty in making left turn movements, access management techniques should be utilized. These can include a non-traversable median, curb-cut controls, etc. To handle left turn movements with a non-traversable median it is further proposed that the city and state investigate the potential for locating “controlled u-turns” and designated intersections. Installation of managed u-turn will likely require that the median area be widened resulting in a wider roadway/rights-of-way at those locations.
- Improve pedestrian safety along U.S. 27/Alexandria Pike through the use of streetscape improvements.

Pooles Creek Road

- Widen to improve accessibility between Darlas Drive and AA Highway. Note: Due to physical constraints it appears unlikely that the section of Pooles Creek Road from U.S. 27/Alexandria Pike to Darlas Drive will be improved to the extent that it can serve as a good arterial road). When complete, this section, along with the remaining roads, may be reclassified.

Upgrade of Existing Collector Streets

East Alexandria Pike

- To improve the safety and flow of traffic (vehicular and pedestrian) at the intersection of Goetz, Dodsworth, East Alexandria Pike and the entrance to City Hall, a modern roundabout could be installed. A modern roundabout can manage traffic at intersections, such as this one, where roads enter at odd angles. It is therefore recommended that the city investigate the potential for a roundabout at this location.

Dry Creek Road

- Widen and re-align road from Murnan Road west to proposed access to the Granite Spring development (i.e. address inadequate lane widths and horizontal/vertical curves, etc). Where Dry Creek Road connects with the Granite Springs development, this portion of the road should be classified as a local street to the AA Highway. Any improvements to Dry Creek Road in this area should be made in accordance with public street standards. It is therefore recommended that emphasis on using this road for major access to the AA Highway be removed in favor of increasing access at Murnan Road via a new interchange (see recommendations for Murnan Road).

Table 8-1
Traffic Counts on Selected Streets

STREET NAME SEGMENT	LAST ACTUAL ADT* (YEAR)	LAST COUNT PER 2000 PLAN ADT (YEAR)	PERCENT CHANGE
U.S. 27/Alexandria Pike			
Between E Alexandria (S) Pike and AA Highway	28,800 (2002)	27,400 (1994)	5.1
Between AA Highway and East Alexandria Pike (N)	29,100 (2002)	23,900 (1998)	21.7
Between East Alexandria Pike and Pooles Creek Road No. 1/Industrial Road	35,700 (2004)	28,600 (1999)	24.8
Between Pooles Creek Road No. 1/Industrial Road and John's Hill Road	40,600 (2001)	28,600 (1998)	41.9
AA Highway			
Between East Alexandria Pike and Pooles Creek Road No. 1	25,300 (2004)	19,690 (1995)	28.5
Pooles Creek Road No. 1			
Between AA Highway and U.S. 27/Alexandria Pike	3,670 (2004)	3,509 (1998)	4.6
Between U.S. 27/Alexandria Pike and Winters Lane	N/A	7,070 (1998)	N/A
Between Winters Lane and Mary Ingles Highway	7,020 (2004)	4,741 (1998)	48

* ADT – Average Daily Traffic

Source: Kentucky Transportation Cabinet, 2004

Prepared By: Northern Kentucky Area Planning Commission, May 2005

Murnan Road

- Realign with East Alexandria Pike at U.S. 27/Alexandria Pike.
- Improve Murnan Road from East Alexandria Pike at U.S. 27/Alexandria Pike to the AA Highway as an urban collector street, inclusive of 2 to 3 lanes, sidewalks and landscaping.
- Improve Murnan Road south of the AA Highway as a rural collector street,
- Widen and provide access to the AA Highway. Possible options include a half or full interchange, and the provision of new access roads to the AA Highway. Some of these options may result in the need to reroute the entrance drives into Glenridge, Shadow Lake and Ivy Ridge residential developments from the AA Highway to alternate access roads leading to Murnan Road.

New Roads To Serve Future Development

Proposed Collector Streets

A new connection from Pooles Creek Road to John's Hill Road

- Although located outside of Cold Spring city limits, it is recommended that the city continue to support a new roadway that would provide an additional connection to NKU. The proposed road would originate at the intersection of Pooles Creek Road and the AA Highway, extending north to John's Hill Road. This access is essential for the continued growth of NKU and for implementation of the planned "Technology Triangle".

U.S. 27/Alexandria Pike and East Alexandria Pike connector

- To provide an alternate access between U.S. 27/Alexandria Pike and East Alexandria Pike in the vicinity of Rockyview Drive via a new/improved intersection on the AA Highway.

The improvements to Murnan Road and in the vicinity of Rockyview Drive would provide additional access to AA from both sides of U.S. 27/Alexandria Pike with a circular access route through the city. The route would originate at the U.S. 27/Alexandria Pike and Murnan intersection, extend south to Licking Pike, Low Gap Road, and to U.S. 27/Alexandria Pike. To complete the loop, Rockyview Drive would be connected to U.S. 27/Alexandria Pike, the AA Highway and East Alexandria Pike.

Proposed Local Streets

Alternative Routes To Using U.S 27/Alexandria Pike – This plan indicates the need for constructing future local streets designed to relieve some of the local traffic along U.S. 27/Alexandria Pike. Currently, most roads in the central area of the city lead directly to U.S. 27/Alexandria Pike, with minimal opportunity for residents and service vehicles to travel between residential and commercial developments without using U.S. 27/Alexandria Pike. As future development occurs, this plan recommends the construction of the following access routes between existing/proposed roads within the city.

- Pooles Creek Rd / Martha Layne Collins /NKU Connector – to provide a new roadway west of U.S. 27/Alexandria Pike to serve Northern Kentucky University area.
- Darlas Dr extension – to provide a new roadway extending Darlas Drive from its current terminus to U.S. 27/Alexandria Pike via Bunning Lane or other local streets.
- Bunning Lane extension north – to provide a new roadway extending Bunning Lane from its current terminus, north to Pooles Creek Road.
- Bunning Lane extension south – to provide a new roadway extending Bunning Lane south to Dry Creek Road.
- St. Michael Dr. extension – to provide a new roadway extending St. Michael Drive from its current terminus, northwest to Pooles Creek Road.
- East Alexandria Pike/Ripple Creek Road connector – to provide a new roadway between these existing streets, south of Sabre Dr and north of Keating Drive.
- Crossroads Boulevard – to provide a new roadway that would extend at the terminus of Crossroads Boulevard and connect with the AA Highway.
- Plaza Drive – to extend the existing public street to connect with the AA Highway via an easement through private property as per recent development plan approval.

TRANSIT

The Transit Authority of Northern Kentucky (TANK) has provided transit services to Boone, Campbell and Kenton counties as well as downtown Cincinnati since 1973. Table 8-2 shows TANK's annual ridership since 1980. TANK's fixed route bus operation consists of 117 coaches operating along nearly 30 routes, of both local and express service. In 1999, 4.3 million miles of transit service were provided to nearly 3.9 million passengers. Ridership rose nearly 8 percent from 1998 to 1999. Ridership is expected to increase in Cold Spring due to the increased residential development in the area. Cold Spring residents are provided TANK service via two routes, one during peak hours and another during off-peak hours, both of which run north and south through Cold Spring along U.S. 27/Alexandria Pike.

Since 1995, TANK has opened park-and-ride locations, one of which is located in Cold Spring, on the east side of U.S. 27/Alexandria Pike, northwest of Chapman Lane. A park and pool lot is located on Pooles Creek Road near the AA Highway, however, it is recommended that this be converted to a park and ride facility. Park and Rides have become extremely popular in recent years because of the convenience and cost savings. The average suburban commuter using a TANK Park and Ride saves close to \$9 per day by riding TANK over driving their personal automobile. Two (2) future park and ride lots are proposed at the Northern Kentucky University (NKU) campus, and within the Cold Spring Crossing development near the AA Highway and the U.S. 27/Alexandria Pike interchange.

Lift-equipped service is now available on 100 percent of TANK's fleet. This was accomplished at the end of 2000, and ensures fixed route transit accessibility to all segments of the population in Northern Kentucky. TANK also operates a specialized transportation service for people who cannot use the regular fixed-route service. The service, known as the Regional Area Mobility Program (RAMP), provides door-to-door transportation in the same service area in which regular TANK routes operate. There are 11 lift-equipped paratransit mini buses used for RAMP.

The Campbell County Transportation plan identifies U.S. 27/Alexandria Pike as a "Major Transit Corridor" which is intended to serve future transit needs in the County by providing necessary linkages east/west and north/south. These linkages are planned to provide access, via limited stops, to major destinations, such as employment centers, throughout Northern Kentucky and the Cincinnati region.

BICYCLE AND PEDESTRIAN TRAVEL

The OKI Transportation Plan Update, as previously noted, has recommended that transportation demand be accommodated by a multi model system. Bicycle and pedestrian transportation are key elements of a multi model system. Every trip that begins and ends with walking or bicycle transportation is energy efficient, non-polluting, healthful, and cost efficient for all income levels. Consideration should be given for these modes of travel when new streets and bridges are being constructed or reconstructed.

OKI Regional Bicycle Plan, prepared in 2001, contains information about bicycle needs for the region as well as extensive recommendations for improving the safety and utilization of bicycle travel, and for integrating bicycle facilities into the planning and development of the regional multi-modal transportation network.

Bikeways in the OKI region are predominantly on-road facilities, which utilize existing streets. In Campbell County, it is also anticipated that most bikeways will be on-road facilities. On-road facilities include shared lanes, bike lanes, wide outside lanes, and paved shoulders. In 2000, the city was successful in procuring Transportation Enhancement funds to build a sidewalk and bike path on East Alexandria Pike and Dodsworth Lane from US 27/Alexandria Pike east past City Hall and two parks in 2000. Kentucky State Route 8 is also a popular route for bicyclists. The Quest River Path, which is a project of Forward Quest, follows this route and is being planned as a bicycle and pedestrian path along the Ohio River from Pendery Park through Boone County. The first leg of this route from Pendery Park to the City of Melbourne has been funded. The second leg is being planned to extend to the City of Silver Grove. Pedestrian portions of this route will utilize existing and planned walkways through the cities of Dayton and Bellevue and along the City of Newport's River Walk.

The conversion of the L&N Bridge, renamed the Newport Southbank Bridge, to a pedestrian and bicycle only facility provides a connection from the City of Newport to Cincinnati. The Quest River Path envisions that portions of the route will be a multi-use trail, which both walker/hikers and bicyclists share. Other portions of the route will likely be separate where bicyclists may use the existing road system and walker/hikers use existing sidewalks, such as the Newport River Walk.

The *Campbell County Transportation Plan*, prepared in 2003, supports the efforts by Northern Kentucky University to enhance pedestrian transportation on its campus and to the adjoining and nearby community. The plan also encourages the continued emphasis on providing sidewalks or other means of non-vehicular transportation, as part of new commercial, professional office and residential development. The plan recommends that the County, in conjunction with the cities, consider preparing a county-wide bicycle plan. The plan should include identification and evaluation of appropriate routes and improvements for safe access to destinations (e.g. parks, schools, employment centers). The KYTC Pedestrian and Bicycle Policy adopted in 2002 directs the Cabinet to consider bicycle and pedestrian facilities whenever new highway projects are being planned. One criteria used during this consideration are recommendations of local plans. As a result, the preparation of a local bicycle plan that is specific to Campbell County and the cities will provide the basis for implementing the KYTC policy. In addition to identifying routes to specific destinations, the plan should address other elements necessary to encourage additional bicycle use. Elements that encourage bicycle use include: parking facilities, bus racks, bicycle safety and motorists awareness programs, and signs that identify designated routes.

It is recommended that developers should be encouraged to provide sidewalks and bikeways as part of the infrastructure of new developments to provide connections to other streets neighborhoods, and community facilities.

It is further recommended that bicycle plan be developed for Campbell County, and coordinated with the OKI Regional Bicycle Plan.

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AIR TRANSPORTATION

The Cincinnati/Northern Kentucky International Airport is the primary air carrier airport serving all of Northern Kentucky, Southeast Indiana, and the Cincinnati Metropolitan area. Accessible primarily via U.S. 27/Alexandria Pike, the AA Highway, and Interstate 275, the airport is located in northeastern Boone County. It serves as the base for 5 scheduled Air Carriers, including one of six hub operations of Delta Airlines, that operate an average of 690 daily departures to 140 cities around the world. The airport is also a base for thirteen (13) regional carriers, including the hub location for Comair (Delta Airlines regional carrier) that provides commuter operations to 117 destinations in the United States, Canada and the Bahamas.

In 2004, the Cincinnati/Northern Kentucky International Airport served over 11 million enplaned air passengers, ranking it the 23rd busiest airport in the United States. This number is predicted to increase to more than 14 million by 2010, a 27 percent increase. As the number of passengers increases, so will the traffic to and from the airport, and likewise, the strain on the surface transportation system.

The largest general aviation airport in the metropolitan area, Lunken Municipal (City of Cincinnati) Airport, is also accessible to citizens of Cold Spring via Interstate 275. Lunken Airport is located in Hamilton County, Ohio, across from the City of Fort Thomas. Other general aviation airports within approximately ten (10) miles of Northern Kentucky are: Cincinnati –

Blue Ash Airport, in northeastern Hamilton County; and Clermont County Airport, near Batavia, Ohio.

TECHNOLOGY IN TRANSPORTATION

Information technology has the potential to alleviate dependency on vehicular trips to accomplish many tasks. For example, with a home computer one can now search for books at the Campbell County Public Library and at other libraries in the Greater Cincinnati/Northern Kentucky area. In many cases, it is now possible to perform other tasks such as shopping and product ordering from home even without a home computer. Generally, this convenience has only been available from large mail order firms. However, with increased awareness and interest, these services could potentially be made available by local businesses. Home delivery of products ordered from local businesses such as groceries, drug stores, and hardware stores, once a common occurrence, is again being implemented in many areas of the country. Trends such as these have the potential to reduce short trips, with a corresponding benefit in air quality improvement.

"Telecommuting" can especially reduce commuting to and from work as people are increasingly able to work from their homes through the use of computers, modems and fax machines. The potential impact of increased telecommuting must also be examined in light of present and future zoning ordinances. Increased numbers of people working from their homes will raise questions and concerns about business activities in residential areas which were more clear cut in the past, but will require further examination and planning in the future.

The advent of "smart highway systems" such as ARTIMIS, the Advanced Regional Traffic Interactive Management and Information System, has been implemented in the Cincinnati Metropolitan Area. ARTIMIS is also a good example of the use of information technology in the area of transportation. This system monitors traffic conditions on the region's major thoroughfares, via an Operations Control Center (located in downtown Cincinnati), through the use of sensors installed in the roadways and remote control video cameras. When traffic delays or bottlenecks are detected, overhead changeable message signs or Highway Advisory Radio (HAR) provides alert messages sent by operators to warn drivers of potential problems ahead and to suggest possible alternate routes. These and other transportation related developments offer great promise and should be recognized, discussed, and encouraged where appropriate.

Table 8-2
Annual Ridership
Transit Authority of Northern Kentucky (TANK)

YEAR*	RIDERSHIP	PERCENT CHANGE
1980	5,092,188	
1981	4,578,719	-10.1%
1982	4,134,624	-9.7%
1983	3,625,158	-12.3%
1984	3,755,586	3.6%
1985	3,800,157	1.2%
1986	3,695,928	-2.7%
1987	3,647,631	-1.3%
1988	3,567,668	-2.2%
1989	3,663,329	2.7%
1990	3,671,048	0.2%
1991	3,785,071	3.1%
1992	3,673,489	-2.9%
1993	3,569,520	-2.8%
1994	3,412,715	-4.4%
1995	3,385,305	-0.8%
1996	3,375,012	-0.3%
1997	3,348,283	-0.8%
1998	3,645,879	8.9%
1999	3,912,254	7.3%
2000	4,315,779	10.3%
2001	4,206,200	-2.5%
2002	3,969,518	-5.6%
2003	3,799,129	-4.3%
2004	3,462,603	-8.9%

* Fiscal Year

Source: Transit Authority of Northern Kentucky, 2005

Prepared By: Northern Kentucky Area Planning Commission, May 2005

SUMMARY OF MAJOR RECOMMENDATIONS

1. Undertake an access management study to examine east west connections and along U.S. 27/Alexandria Pike.
2. Collaborate with OKI on the *Southeast Corridor Study* to, at a minimum, include the City of Cold Spring. The Southeast Corridor connects the Cincinnati CBD with Northern Kentucky University (NKU). This corridor contains I-471 and U.S. 27/Alexandria Pike, which are both primary north-south access routes to Northern Kentucky University and are both congested. U.S. 27/Alexandria Pike is a principal arterial roadway serving the entire length of Campbell County and providing access to adjacent residential and commercial properties. The study area should be extended from its current terminus at the entrance to NKU to the area just south of the AA Highway and U.S. 27/Alexandria Pike interchange, thus taking into account the transportation issues present along U.S. 27/Alexandria Pike in the city.
3. Reapply for Transportation Enhancement Program funding to pursue the installation of a landscaped, non-traversable median. In the event that controlled U-turns are considered either as a separate option or in conjunction with non-traversable medians, issues regarding the physical capability of doing so within the existing rights-of-way must also be considered.
4. Embark on a transportation engineering feasibility study to investigate which roads could/should be improved in the city, including more detail on specific alignments, given projected growth and topography issues.
5. Begin discussion and collaboration with Campbell County on roadway improvements. It is further recommended that bicycle plan be developed for Campbell County, and coordinated with the OKI Regional Bicycle Plan.
6. Take proactive steps to acquire better street connections during the development review and approval process. Developers should be encouraged to provide sidewalks and bikeways as part of the infrastructure of new developments to provide connections to other streets neighborhoods, and community facilities.

CHAPTER IX IMPLEMENTATION

GENERAL

This chapter describes various implementation measures that may be used to accomplish the goals, objectives, and specific recommendations described in this plan. With completion of this plan, a necessary continuing step in the planning process has been accomplished. However, the preparation and adoption of the comprehensive plan, will not, on its own, achieve the plan's goals and objectives. Implementation of this plan is likely the most important and ongoing step in this process.

The comprehensive plan serves as the foundation upon which the city's future growth and development decision-making are based. Both the public and private sector have a role to play in the implementation of this plan. The public sector will assist in guiding development by reasonable and prudent application of various land regulatory measures, as well as, through financing of public works projects. Private sector businesses and individuals will plan and complete land development projects.

A summary of major recommendations have been included at the end of each chapter of this plan. This chapter revisits these recommendations as well as provides suggestions on additional implementation tools and methods which can assist the city in meeting the goals and objectives of the plan. The first part of the chapter describes the importance of the city's involvement in implementing the recommendations of the comprehensive plan. An overview of a number of implementation tools which are commonly used is then presented, followed by a more detailed discussion of specific implementation measures that pertain to Special Development Areas, the Town Center, transportation issues and studies.

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PROACTIVE STEPS

City Council has the ability and the responsibility to implement policies and programs other than (in addition to) the City's Zoning Ordinance and Subdivision Regulations, which will fulfill the goals of the comprehensive plan. It is vital that the city have early and ongoing coordination with the development industry to insure the public interest is best served during these economic developments. The city should also take a proactive role in establishing relationships with the private developers, public and private utilities, transportation providers and other governmental units to implement the various programs, projects, and items included in this plan. Having a representative from the city is extremely beneficial for these reasons, such as a city administrator, consultant, or other full-time staff person who can take on a proactive role in carrying out the plan recommendations.

It is important that City Council communicate with the Cold Spring Planning and Zoning Commission, who oversees the preparation and adoption of this comprehensive plan, and performs planning and development review in the city, has special expertise and insight into development patterns and needs in the city. As such, it is important that City Council understand, adopt and support the plan and strive to meet its specific implementation recommendations.

Many of the driving forces that influence the growth and development of Cold Spring originate outside the city limits. These factors include, for instance, the potential for future growth to the south of the city, future road improvements at John's Hill Road for connection to Northern Kentucky University, and the increased use of U.S 27/Alexandria Pike as a major north-south connector, are all important factors that influence the decisions of Cold Spring and its neighboring local communities such as Alexandria, Highland Heights and Wilder. By collaborating together, these cities could assist one another to make more informed decisions and collectively by making unified recommendations to the County and other agencies whenever necessary. One way to achieve this could be through the formation of a multi-city community panel with representation from interested cities.

Moreover, City Council and the Cold Spring Planning and Zoning Commission should continue to communicate on an ongoing basis with the Campbell County Planning Commission and the planning commissions of surrounding cities to keep up to date on local issues and to coordinate planning efforts where possible. Once again, the city should seek outside assistance through a consultant

The city should also take a proactive role in establishing relationships with the private developers, public and private utilities, transportation providers and other governmental units to implement the various programs, projects, and items included in this plan.

or additional staffing to act as a liaison to the council and other planning entities in Campbell County to coordinate growth and economic development activities. Lastly, as the following section will describe, the public should be kept informed of the steps being taken to implement the plan with their ongoing input and support secured.

PUBLIC INVOLVEMENT

Ongoing community involvement and cooperation is an essential ingredient for the successful implementation of this comprehensive plan. Local civic clubs, neighborhood groups, community organizations, private citizens, business and industrial leaders all play an important role in the community and, as such, have ideas and opinions that are crucial in the planning process. The city should therefore develop a public education program to share information amongst citizens, the planning commission and the city. One way this could be achieved is through educational workshops, focus group sessions, and on-line access to public information. For instance, as development policies, ordinances, regulations are revised, the community should be invited to provide meaningful input into the review process. It is recommended that the city post a link to the NKAPC website (www.nkapc.org) to facilitate public access to planning documents such as the Comprehensive Plan, Zoning Ordinance, Subdivision Regulations, Forms and Applications, planning commission schedule and meeting minutes.

ZONING REGULATIONS

State legislation permits the legislative bodies of cities and counties to adopt zoning regulations which may be used to divide the territory within their jurisdiction into zones so as to promote public health, safety, and general welfare of the area of jurisdiction, to facilitate orderly and harmonious development and visual or historical character of the area, and to regulate the density of population and intensity of land use in order to provide for adequate light and air. In addition, zoning may be employed to provide for vehicular parking and loading space, as well as to facilitate fire and police protection and to prevent the overcrowding of land, blight, danger, and congestion in the circulation of people and commodities and the loss of life, health, or property from fire, flood, and other dangers. Zoning may also be employed to promote and protect airports, highways, and other transportation facilities, public facilities, including schools and public grounds, historical districts, central business districts, prime agricultural land, natural resources, the use of sludge from water and waste water treatment facilities in projects to improve soil quality, and other specific areas which need special protection.

SUBDIVISION REGULATIONS

Kentucky Revised Statutes, Chapter 100, permits local planning commissions to prepare and adopt regulations for the subdivision of land within its boundaries after all elements of the Comprehensive Plan have been adopted by the commission. This legislation requires that, if such regulations are adopted, all subdivision of land shall (mandatory) receive planning commission approval before subdivision plats may be recorded at the county level. It further states that any street or public ground which has been dedicated shall not be accepted by the legislative body until it has received final plat approval by the planning commission. Additionally, any street that has been built in accordance with specific standards set forth in the subdivision regulations shall be automatically accepted by a legislative body forty-five (45) days after inspection and final approval.

CAPITAL IMPROVEMENTS PROGRAM

A capital improvements program is developed only after completion and adoption of the Comprehensive Plan. Such a program is an effort to identify, from a detailed review of the recommendations included in the Comprehensive Plan, public improvement priorities, and then to schedule these priorities on the bases of the city's financial ability to accomplish them. Such a program is usually short-term in nature -- normally a five (5) or six (6) year program, with the first year being incorporated as the current year operating budget. Kentucky Revised Statutes Chapter 100.311 details the composition of a Public Improvement Program.

More specifically, a capital improvements program is either preceded by, or includes, a complete review of the financial condition of the city for a number of past years, so that a complete understanding of those financial operations is available prior to the time any recommendations for future expenditures are made. After completion of this detailed financial analysis, projections of budgets for future years are made. Detailed review of the recommendations set forth in the comprehensive plan allows development of a set of priorities, identifying which public improvements will be necessary in the early years of the plan's long-range program. Cost

estimates for each of these priority items are then made and a schedule of capital improvements projects is developed.

The program further recommends appropriate sources of funds to finance such improvements as they are required (e.g., current revenues, special funds, bond issues, etc.). Effort is then directed toward coordinating scheduled capital improvements projects with the city's ability to finance such improvements over the period covered by the capital improvements program. A well designed capital improvements program is kept current by re-evaluating each year, the priorities assigned to each project, and by adding another year to the end of the program -- each time the first year is incorporated into the current operating budget. Preparation of a capital improvements program is an important component in any comprehensive planning process.

Capital improvements programming has not been used extensively in Northern Kentucky. In fact, there are only a few instances where local government financial planning bears any similarity to capital improvements programming. However, this tool can be one of the most valuable means of planning for and guiding future public expenditures in line with anticipated private development efforts, and its preparation is highly endorsed.

OFFICIAL MAP REGULATION

Kentucky Revised Statutes 100.293 states: "When all required components of the comprehensive plan and a capital improvements program have been prepared and adopted, the Planning Commission and City Council have the authority to prepare and adopt an official map regulation. This regulation incorporates a map of the entire area of jurisdiction and may show, without being limited to, the location and extent of existing and proposed public streets, including rights-of-way, water courses, parks and playgrounds, public schools and building sites, and public facilities needs.

Prior to the adoption or amendment of the official map regulation, the local planning commission is required to review the official map or changes to it in light of the comprehensive plan, hold a public hearing on the map, or proposed changes, and recommend its approval or disapproval to the City Council. After passage of the official map regulation for all or part of the city, all streets, water courses, parks and playgrounds, public buildings, public school sites, or other public facilities which have been approved under subdivision regulations, as provided in the Kentucky Revised Statutes, shall be posted to the official map. No public hearing needs to be held for such additions to the official map.

Kentucky Revised Statutes further note that the passage of the official map regulation shall not be deemed as opening or establishing of any street, or as a taking, or as an acceptance of any land for a street, water course, or public grounds; nor shall it obligate the city or county to improve or maintain any such street or facility.

State statutes also note that, for the purpose of preserving the integrity of the official map regulation of the city, no permit shall be issued for the construction or material alteration of any building within the lines of any street, including rights-of-way, water courses, parks and playgrounds, public schools, or other public building sites, shown on the official map. The

official map of a city may include an area outside the city limits over which the approval of subdivision plats is required. State statutes note that any person desiring to construct or materially alter a building in the lines of any proposed facility shown on the official map shall apply to the administrative official of the city for a building permit. Unless such application is made and the permit is granted, no person shall recover any damages for the taking for public use of any structure or improvement within the lines shown on the map, and any such structure or improvement shall be removed at the expense of the owner when the land is acquired for public use.

Statutes also indicate that, if the land shown on the official map is not yielding a fair return, the board of adjustment shall have the power to grant a permit for the building which will, as little as practicable, increase the cost of future acquisition, and the board may impose reasonable requirements as a condition for granting such permits. Such a permit shall not be granted when the applicant will not be substantially damaged by placing his building outside the boundary lines of the proposed facility.

The official map regulation is a land regulatory tool permissible in the state of Kentucky, which has not been used to date in Northern Kentucky. It appears to be a valuable tool for local government to use in planning for the acquisition and development of land for public purposes. Its obvious intent is to assure that the cost of such lands, if they can be reasonably anticipated, to be acquired and coordinated with the five-year capital improvements program, will not significantly escalate, so that the end result will not be much higher costs to the public, for purchase and development of such properties. The regulation is written in an attempt to insure fairness to property owners in question, while assuring that the entire taxpaying public will be benefited by such long-range financial planning coordinated with long-range physical planning.

BUILDING CODES

A building code establishes standards for design, construction, alteration, repair, equipment, use and occupancy, maintenance, removal, and demolition of every building, structure, or appurtenance connected or attached to such buildings or structures. This type of code also establishes procedures for amendments and appeals to the code and provides for its administration and enforcement.

In 1980, the state of Kentucky enacted a state-wide building code -- the Kentucky Building Code. Prior to that time, each individual community could select whichever national building code it wished to use or it could develop its own building code. In an effort to assure uniformity of application of building regulations, the state of Kentucky adopted the Kentucky Building Code. That same state law, however, requires that local governments must enforce that building code with building officials qualified by examination that is administered through the Commonwealth of Kentucky.

SPECIFIC IMPLEMENTATION MEASURES

During the process of preparing this plan, several specific implementation measures were discussed. They were discussed as a means by which specific issues could be addressed. These

measures fall into the following two (2) categories: (1) Special Development Areas, and (2) the Town Center Concept.

SPECIAL DEVELOPMENT AREAS

1. U.S. 27/Alexandria Pike Corridor

This area generally comprises all parcels of land generally within two hundred feet of the right-of-way of U.S. 27/Alexandria Pike, but typically including the entire area of parcels abutting U.S. 27/Alexandria Pike from the city's northern boundary with the City of Highland Heights to the intersection of Crossroads Blvd/Plaza Drive. The intent of designating the special development area is to create a focal point for the community. To accomplish the intent of this plan, in regards to this area, which is the transformation of the U.S. 27/Alexandria Pike corridor into a public high use type area, several measures or programs/projects are suggested.

a. Design/Use Guidelines

The most important aspect of implementing this Special Development Area (SDA) is the creation of a built environment that is: more traditional in design by placing less emphasis on the automobile and more on pedestrian access; more in scale with nearby neighborhoods; and that provides a mix of land uses that offer services and conveniences to local residents. To accomplish this, the city must adhere to specific design guidelines for the area and to update the established zoning ordinance regulations that were created for this area to match the objectives established for this area. The following is a list of guidelines and specific measures, some of which have been incorporated into the existing regulations, while the others need to be added:

- Minimum front setbacks that bring buildings closer to the road and sidewalk than is typical under current zoning within the city. The intent is to create a different environment than that found in typical strip commercial areas which have multiple access points and also allowing more space for rear parking. The idea is to create a welcoming relationship between buildings and pedestrians while still accommodating automobile access.
- Parking in the rear or on the side of buildings, instead of in the front with access via existing side streets. All parking should be landscaped along public streets and adjoining residential uses. The city should consider opaque or nearly opaque screening for parking in view of U.S. 27/Alexandria Pike to maintain an emphasis on building design and pedestrians rather than on the automobile.
- Identify architectural features that may be desired within the corridor to ensure compatibility with adjoining and nearby residential land uses (i.e. requiring that all buildings have pitched roofs or parapets).

- Designate the area as a special district and establish a design review board to approve all building designs.
- Sign and landscape regulations to specifically address the needs of the area.

b. Land Use

Land uses to be permitted are a key factor in the development of this SDA. This plan update continues to propose a mix of uses, limited to those which are compatible with adjoining and nearby residential uses, while at the same time providing commercial and professional services for the residents of the city and the surrounding area. Compatibility will be accomplished via design guidelines as previously discussed and by limiting uses to those which tend to create less traffic, noise, and which are typically not characterized as having large buildings or continuous outdoor activity. The land uses envisioned for this area are: professional offices; apartments and/or townhouses; restaurants, with sit down seating only (no drive-in or drive-thru) which may include outdoor dining; and, specialty retail shops. Specialty retail shops would include such uses as: apparel shops; art supplies; books, stationary, gift shops; delicatessens; florists; glass, crystal and china stores; hobby or craft shops; jewelry stores; music and record stores; dress shops; and others as determined by the city to be appropriate for the area.

c. Streetscape and Pedestrian/Bicycle Plan

Pedestrian use of the sidewalks along U.S. 27/Alexandria Pike and the connection of this pedestrian system to other public use areas such as the schools, city parks, the public library, and the recommended Town Center area (see discussion below) are essential to the success of this SDA. The city should take a proactive approach to this effort by preparing a detailed streetscape plan for the U.S. 27/Alexandria Pike corridor, which should be implemented using both city and private funds as the area redevelops. In addition, a plan for pedestrian and bicycle access to adjoining residential areas will also be important to support the efforts within this SDA.

A streetscape plan is important because of the "barrier" created by U.S. 27/Alexandria Pike. Examples of issues to be addressed include: how to safely and conveniently cross U.S. 27/Alexandria Pike; how to "screen" the sidewalks from the traffic on U.S. 27/Alexandria Pike (i.e., creation of landscape buffers between sidewalk and street.); and creation of public use areas, such as pocket parks or use of benches and landscaping to enhance and encourage pedestrian use.

In addition to the measures described herein, the success of this part of the plan will depend on the level of community support behind this plan. Regardless of any regulations or public and private construction projects, if the citizens, elected leaders and visitors to the city do not support these efforts, the plan may not be

successful. The preparation of the streetscape plan is an opportunity for the city to involve citizens in an effort to establish this area. The city should consider creating a citizens committee to assist in the preparation of the streetscape plan.

d. Access and Parking

Although it is the intent and goal to create a "pedestrian friendly" environment as a key part of this SDA, accessibility by motor vehicles is also very important. The intent of this plan is to minimize or stop the creation of any new curb cuts along U.S. 27/Alexandria Pike and to access all properties from existing streets or from parallel access streets with U.S. 27/Alexandria Pike.

Provision of off-street parking is another important issue to be addressed in the process of implementing this plan for this SDA. Typically, lots in the area are shallow and may not be sufficient for both the construction of architecturally appropriate buildings and parking spaces. As a result, the city should approach this issue in two ways. First, as regulations/guidelines are prepared to implement development of this area, parking requirements should be reviewed and modified to require the fewest number of spaces necessary to support the land uses on site. This may include a low minimum number of spaces for on-site parking in conjunction with shared parking and/or with the use of publicly provided parking. The second approach that the city should undertake is the provision of public parking lots. These lots should be as accessible as possible and appropriately landscaped to complement the surrounding area.

2. Cold Spring Crossing Development Area

The 2000 Comprehensive Plan identified the entire area of the northeast quadrant of U.S. 27/Alexandria Pike and the AA Highway as a Special Development Area. Since the adoption of the 2000 Comprehensive Plan, the western section of the area has developed with a large retail center and a number of retail outlots. The remaining eastern section of the area is not yet developed, however, land uses for the remaining area of the quadrant may include a mix of residential and office uses. This plan update therefore recommends that the eastern section of the Cold Spring Crossing Development area remain as SDA.

3. U.S. 27/Alexandria Pike and AA Highway – Southeast Quadrant

This plan proposes the land within this quadrant be developed into a research and “high-tech” village development, centered on the emerging advantages of telecommunications and technology infrastructure. The intent is to provide an area supportive of and consistent with the planning being undertaken by NKU and others to develop the Northern Kentucky Emerging Technology Commercialization Triangle (NKETCT). To accomplish the intent of this plan, in regards to this area, the following implementation measures are suggested:

- In order to implement this portion of the plan, the city should prepare and adopt a new zoning district designed to permit this particular style of development and land use combination. The utilization of a form-district type of regulation is recommended for this area.
- A large part of this interchange is located within the unincorporated area. In order for this area to be a more effective, viable planned development, additional land area will be needed. To address those areas which are outside the city limits, the city should coordinate with the Campbell County Planning Commission to ensure consistency in the recommendations for the area and any associated zoning/land use regulations.
- The city, jointly with a private developer(s), should prepare a development/urban design plan describing the envisioned village and its uses, the properties involved, the phases of development, and market feasibility.

Recommended Implementation Steps for regulating Special Development Areas

1. The zoning regulations for areas zoned SDA along the U.S.27 Alexandria Pike Corridor should be re-written to conform to the key concepts embodied in the 2000 and 2005 Comprehensive Plan updates.
2. Coordinate with the Campbell County Planning Commission and Campbell County Fiscal Court to designate those parcels adjacent to areas recommended as SDA with similar recommendations in the county comprehensive plan and to make appropriate revisions to the Campbell County Zoning Ordinance that are compatible with those in Cold Spring. This would result in the application of “seamless” land use regulations to these areas.

TOWN CENTER

The development of a Town Center is another key component of this plan. The intent of providing for a Town Center is to create a focal point for the community by providing a cultural, educational and recreational Center. The following are recommended steps to help accomplish this effort:

- That the city, jointly with a recreational design consultant, prepare a master plan describing the envisioned center and its uses, the properties involved, the phases of development and project feasibility. It is recommended that the Master Plan contain a significant landscape architecture design component, with a detailed plan for the development of the recreational areas and the amphitheater discussed in this plan update.
- That school property and public recreational facilities and park land/open space be incorporated into the plan, where possible.

- That the master plan be then used to communicate the city's intentions with the affected and adjacent property as well as to obtain public review and input.
- The city enter into cooperative agreements with the Campbell County School Board, and the Northern Kentucky Education Cooperative for the use of all the land fronting on the south side of East Alexandria Pike from U.S. 27/Alexandria Pike through the existing City Hall property, specifically for the use of classrooms or meeting spaces in the two school buildings for evening adult education activities.
- One potential that could be sought is the assistance of the U.S. Army Reserve Engineer Battalion stationed at Fort Thomas for the construction of the amphitheater and other recreational structures. It may also be possible to enlist the assistance of landscape design from either the University of Cincinnati or University of Kentucky's School of Landscape Architecture.
- That the city seek funding assistance through corporate sponsorship, Federal and/or State grants or loans.

TRANSPORTATION

This plan update proposes several improvements to existing roads and the construction of some new roads. These projects should be planned for by the city in advance of land development and/or incorporated into a capital improvements program and/or other collaborative efforts with Campbell County, the State or other adjoining jurisdictions.

The following are discussions of access management techniques and modern roundabouts. These are two recommended tools which can be used to help manage traffic flow in the city. More detail on transportation recommendations can be found in Chapter 8.

Access Management

Included in this plan are transportation recommendations for managing the movement of traffic along U.S. 27/Alexandria Pike. This plan recommends that an access management study along U.S. 27/Alexandria Pike should be carried out to facilitate improved east-west connections through the city, eliminate numerous access points, provide multi-modal transportation opportunities and ensure a pedestrian friendly corridor with linkages to recreational and residential areas.

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Access management is an important element to successfully address transportation needs along major corridors. The following list displays the ten principals of access management as identified by the Transportation Research Board:

1. Provide a specialized roadway system
Different types of roadways serve different functions. It is important to design and manage roadways according to the primary functions that they are expected to serve.
2. Limit direct access to major roadways
Roadways that serve higher volumes of regional through traffic need more access control to preserve their traffic function. Frequent and direct property access is more compatible with the function of collector and local roadways.
3. Promote intersection hierarchy
An efficient transportation network provides appropriate transitions from one classification of roadway to another.
4. Locate signals to favor through movements
Long, uniform spacing of intersections and signals on major roadways enhances the ability to coordinate signals and to ensure continuous movement of traffic at the desired speed. Failure to carefully locate access connections or median openings that later become signalized, can cause substantial increases in arterial travel times. In addition, poor signal placement may lead to delays that cannot be overcome by computerized signal timing systems.
5. Preserve the functional area of intersections and interchanges
The functional area of an intersection or interchange is the area that is critical to its safe and efficient operation. This is the area where motorists are responding to the intersection or interchange, decelerating, and maneuvering into the appropriate lane to stop or complete a turn. Access connections too close to intersections or interchange ramps can cause serious traffic conflicts that result in crashes or congestion.
6. Limit the number of conflict points
Drivers make more mistakes and are more likely to have collisions when they are presented with the complex driving situations created by numerous conflict points. Conversely, simplifying the driving task contributes to improved traffic operations and fewer collisions. A less complex driving environment is accomplished by limiting the number and type of conflicts between vehicles, vehicles and pedestrians, and vehicles and bicyclists.
7. Separate conflict points
Drivers need sufficient time to address one set of potential conflicts before facing another. The necessary separation between conflict areas increases as travel speed increases, to provide drivers adequate perception and reaction time. Separating conflict areas helps to simplify the driving task and contributes to improved traffic operations and safety.

8. *Remove turning vehicles from through traffic lanes*
Turning lanes allow drivers to decelerate gradually out of the through lane and wait in a protected area for an opportunity to complete a turn. This reduces the severity and duration of conflict between turning vehicles and through traffic and improves the safety and efficiency of roadway intersections.
9. *Use nontraversable medians to manage left-turn movements*
Medians channel turning movements on major roadways to controlled locations. Research has shown that the majority of access-related crashes involve left turns. Therefore, nontraversable medians and other techniques that minimize left turns or reduce the driver workload can be especially effective in improving roadway safety.
10. *Provide a supporting street and circulation system.*
Well-planned communities provide a supporting network of local and collector streets to accommodate development, as well as unified property access and circulation systems. Interconnected street and circulation systems support alternative modes of transportation and provide alternative routes for drivers, pedestrians, and bicyclists. Alternatively, commercial strip development with separate driveways for each business forces even short trips onto arterial roadways, thereby reducing safety and impeding mobility.

MODERN ROUNDABOUTS

Another transportation tool which is discussed in this plan is the use of modern roundabouts to provide continuous traffic flow at busy intersections. Modern roundabouts are a form of intersection control, commonly used throughout the world. Until fairly recently, transportation professionals in the United States have been hesitant to recommend these for a variety of reasons. One is the experience in this country with “traffic circles”, which are entirely different from the modern roundabout, and which have a history of confusion. Modern roundabouts differ from traffic circles in many respects. Roundabouts require a yield prior to entering, while traffic circles give priority to entering high-speed traffic, not exiting traffic. Also, modern design slows vehicular speed within the roundabout and guides them through to a desired exit point. More recent roundabout experience in the United States is yielding positive results.

Traffic flow through roundabouts is controlled by yields versus stoplights/signs. Geometric design of the roundabout typically reduces speed to approximately 25 to 30 miles per hour. This provides for large numbers of vehicles to pass through the device, with equal priority to all vehicles from all directions. Cities that have used roundabouts indicate that vehicles require a significantly reduced waiting time to pass through a roundabout than through a signalized intersection. This is because signalized intersections require that opposing turn movements and directional flow be stopped to allow access to the intersection. Continuous flow of traffic, albeit at slower speeds, increases the capacity of the intersection and the roadway.

ADDITIONAL IMPLEMENTATION RECOMMENDATIONS

Various additional means of implementing the goals and objectives and the more specific recommendations of this plan are available, and are described in this section.

STUDIES

In addition to regular review and update of the Cold Spring Zoning Ordinance and Subdivision Regulations, city officials should consider conducting additional studies that relate to specific issues within the city.

Land Suitability Study

It is recommended that the city embark on a land suitability study to examine areas of restricted land in the city (i.e. steep hillside areas, geologic hazards, etc.) in order to help guide future growth and development, as well as to determine areas where funds could be used for public improvements.

For example, a method which has been used, to some degree, to guide and regulate development, is an area's ability to create or extend (or conversely, not to extend) roads and utilities into areas which are primarily undeveloped. A well planned and programmed system of road and utility extensions, while permitting development in designated areas at a pace desired by public officials, also permits private developers to recognize the aims and objectives of local government. Private interest decisions, thus, can be guided by these same objectives. The city should also work closely with both public and private utility companies that provide services within the city.

Alternative Funding Methods

To facilitate the implementation of this plan, a number of alternative funding methods are available. There are a number of alternatives available to the city that should be explored. The following is a suggested list of local, state and federal funding sources that the city should pursue:

- Dedicating reserve funds under the city's annual budget
- Local, State and Federal assistance
 - Transportation Enhancement program (Transportation Equity Act for the 21st Century or TEA-21). Funding was acquired by the city for sidewalk improvements along East Alexandria Pike. The city should consider re-applying for additional funding to address the transportation-related issues along U.S. 27/Alexandria Pike.
 - Renaissance Kentucky program – following registration into the program and the preparation of specific plans, funding is available to facilitate public improvements.
 - Local assistance is available through a number of regional agencies and corporations (i.e. the Greater Cincinnati Foundation, Cinergy, Toyota Motor Manufacturing Inc.)

- Development of a Tax Increment Finance (TIF) district where incremental tax increases are used to pay off the bond money used for public improvements. Once the TIF district is established under State law, land within the TIF district is taxed at the current rate. When redevelopment occurs, the increase in tax generated is used to pay off the debt.

Land Acquisition

The city should consider acquiring rights to land as one means of implementing the comprehensive plan. Commonly, easements are acquired for use of certain features of land such as utilities and roads, but can also be used to preserve scenic features, establish pedestrian/bikeways, or prevent use of floodways. Land may also be acquired through advance acquisition or options on land for use in the future. Advance acquisition and options are presently most commonly used for industrial sites, but may also be used for future roads, school sites, and park lands. For example, implementation of roadway improvements such as the proposed realignment of the Murnan Road intersection with East Alexandria Pike could be significantly facilitated if the city can purchase land to preserve this corridor.