

CLARKS RUN CORRIDOR & TRAILS PLAN

*An Assessment of the Qualities
and Values of Clarks Run
and an Action Agenda
for the Danville Community*

CITY OF DANVILLE, KENTUCKY

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I. PURPOSE OF THE CLARKS RUN PLAN

A. BACKGROUND

Clarks Run, a stream that arises in the knobs region of Boyle County and meanders through Danville on its way to Herrington Lake, is a diamond in the rough. Riffles and quiet pools, lush trees and wildflowers, green herons and masked raccoons, and the spilled stones of historic walls and foundations all lie hidden in the heart of the City of Danville. In past years Clarks Run has been barely glimpsed from bridges, and has been known only to those people who live or own businesses on its banks.

Although the area's first residents and industries may have flourished on Clarks Run, for years the focus of urban development and community interests lay elsewhere. Through benign neglect, many properties around the creek remained vacant, and the waterway mainly served the city by carrying away its wastes. Impenetrable thickets grew up along its banks, until the creek was out of sight, and thus out of mind.

In the past decade the Danville community has begun to rediscover Clarks Run:

- ▶ A landfill on its north bank was capped and converted to Batewood Park, opening up a long stretch of the creek to view and recreational enjoyment. The City has secured a federal Land and Water Conservation Grant, matched by City and private funds, to build a walking trail, a pedestrian bridge crossing to the south side of the creek, and a picnic area and pavilion for the park.
- ▶ A second landfill was also capped, and leachate collection systems were installed for both sites.
- ▶ Students and teachers from the Boyle County Middle School have formed a Water Watch team and have been regularly testing water quality.
- ▶ As a part of a city-wide program, 65 trees have been planted in Batewood Park and along the creek since 1987. An inventory of all public-owned trees is currently underway, funded by a Tree Management Grant from the Urban Forestry Assistance Program.
- ▶ The Clean Community Commission has sponsored several volunteer efforts that have removed tons of trash from illegal dumps on the creekbanks.
- ▶ A new sewage treatment plant has been constructed and the number of pumping stations on the creek have been reduced.
- ▶ A Stormwater Management Study is underway to examine flooding problems and the health and effectiveness of the creek and its tributaries.
- ▶ New industries on the west side of town have preserved the floodplain and capitalized on the attractive qualities of the creek.

These activities and accomplishments demonstrate the community's growing commitment to make Clarks Run an asset to Danville once again. This Corridor and Trails Plan is the next step. A Community Rivers and Streams Grant was the catalyst for the planning effort, which was guided by many of the community leaders and volunteers who have been involved in these varied activities. The Plan includes:

- A comprehensive assessment of the creek's resources and the measures needed to protect them;
- Concepts for a trails and parks system that will reunite the creek with the community; and
- Many suggestions for actions that public agencies, civic organizations, community institutions, and private citizens can take to accomplish these proposals.

B. THE COMMUNITY RIVERS AND STREAMS GRANT PROGRAM

The Community Rivers and Streams Grant Program, funded by the Kentucky General Assembly for the 1992/93 and 1993/94 fiscal years, represents a new direction in state water resource management policies. The program provides seed grants to help communities establish programs that will:

- ▶ Allow an intergovernmental approach to managing water resources.
- ▶ Coordinate and focus the efforts of the many property owners, citizen groups, and local, regional and state government agencies whose actions can affect the future of a water resource.
- ▶ Build citizen and government support groups that will continue, beyond the life of the grant, to be involved in stewardship of their "hometown" rivers and streams.

Through the applicant selection process, the program favored grants that would spark greater citizen involvement in waterway stewardship, and that would build new coalitions between citizen groups and public agencies. The program emphasized projects that would assess the many values and resources of the waterway, recognizing their interrelationship. It also encouraged planning efforts that would result in a concrete action agenda with clear responsibilities for accomplishing the proposals.

The City of Danville received a \$5,000 grant from this program, and provided a \$7,500 cash match. The City also contributed substantial in-kind assistance to coordinate the project, create the Clarks Run Committee, arrange public meetings, and provide information for the assessment phase. This Plan is the final report to the Department of Local Government, the state agency that administers the Community Rivers and Streams Grant Program.

C. PLAN PROCESS AND OUTLINE

1. *Community Involvement*

The first step of the planning process was to create a steering committee representing several of the groups that have been involved with Clarks Run. The City initially established the Clarks Run Committee with representatives from the Clean Community Commission, Urban Aesthetic Committee, and the Parks and Recreation Department. The Clarks Run Committee worked with the consultants to advise on the scope of work for the project and the topics and information sources to be covered in the Assessment.

The Committee and City sponsored two open public forums during the process. At the first forum, the Assessment and Issues Analysis was discussed, along with concepts for the Trails and Parks Plan. Participants at the second forum considered the action agenda proposals for each topic, suggested additional actions, proposed responsibilities for carrying out the actions, and recommended priorities. The two forums were well attended, in part due to excellent coverage in advance by the local newspaper. Copies of news articles are in the Appendix.

The success of these Plan proposals will rest on community involvement in a long-term stewardship effort for Clarks Run. Recommendations for expanding the Clarks Run Committee and for outreach to property owners are in Chapter II, section F.3.e of the report.

2. *Assessment*

For the Assessment phase, a base map of the creek was made from composite USGS quad maps. Existing information about the creek corridor was collected concerning many interrelated topics, including: historic and tourism resources, recreation resources, natural resources, water quality, the flooding situation and flood management programs, illegal dumping problems, development trends, current zoning and Comprehensive Plan policies. The Assessment information is summarized in the "Background" sections under each topic in Chapters II and III. More detailed information on which the Assessment was based is available from the City of Danville.

Parks, historic sites, tourism attractions, and schools were mapped in relation to Clarks Run and its tributaries to find linkages for walking trails. Property lines for properties adjacent to the creek were mapped and property owners were identified, to aid in further public outreach efforts as the plan takes more concrete form and to help determine the feasibility of purchases and easements to implement the trail system. The property owner list is in the Appendix, and the map of parcels is included with this Plan.

3. *Issues Analysis*

With the assistance of the steering committee and forum participants, the information

learned under each category of the Assessment was evaluated to identify the most significant issues, threats and opportunities facing the creek. These issues guided the action proposals. The issues are summarized in the "Issues" sections under each topic in Chapters II and III.

4. Trails and Parks Plan

Chapter III of the Plan reviews the community's past recreation planning and the role Clarks Run could play for additional park lands to meet current deficiencies and the needs of future neighborhoods as the City grows. It combines considerations from the Assessment and Issues Analysis to develop a conceptual layout for improving public access to and educational programs about the creek. Through linkages along tributaries, sidewalks, and Clarks Run itself, several options are presented for developing a loop system of trails linking the creek with parks, schools, tourism and historic attractions, Downtown, and other major community institutions. This section of the Plan also recommends creation of an environmental education program that will use the creek as an outdoor classroom and laboratory, in keeping with the Kentucky Educational Reform Act (KERA) policy to incorporate community resources into local school curricula.

5. Action Agendas

The meat of the Plan is in the "Action Agendas" given at the end of each topic in Chapters II and III. These are specific tasks, responsibilities, and priorities for accomplishing the Plan proposals. The Plan offers suggestions about the possible activities that City agencies, schools, civic groups, youth organizations, federal and state government agencies, and private citizens may wish to undertake. It is hoped that these groups and individuals will take the Plan to heart and consider the contribution each can make to rediscover Clarks Run and reunite this special resource with the community around it.

II. CORRIDOR PLAN

A. NATURAL RESOURCES

1. Issues

- a. **Natural qualities:** Clarks Run has unique physical qualities which are not recognized in the community.
- b. **Wildlife:** Clarks Run serves as a corridor and water source for wildlife.
- c. **Tributaries** extend the qualities of the creek into the community and provide potential access points.
- d. **Vegetation** along Clarks Run plays several significant roles.
- e. **Education:** Clarks Run provides a unique opportunity for environmental education lab for the four schools located nearby.

2. Background

Clarks Run originates in the Alum Springs section north of Junction City in western Boyle County. It flows for approximately twelve miles in a northeasterly direction along the south side of Lebanon Road, crossing the Danville Bypass to pass along the south side of the city, crossing US 150 (Stanford Road) to join Ball's Run near KY 52 (Lancaster Road) east of Danville. The City of Danville is sited between Clark's Run on the south and Spears Run on the north. The dividing line for the watersheds is the ridge now occupied by Main, Broadway, and Lexington Avenue.

The character of Clarks Run changes over its course. The following description of the creek's character in the vicinity of Danville is divided into 6 sections, described briefly as the upper reaches, industrial park area, urban industrial area, park area, undeveloped area to KY 52, and rural area to Lake Herrington.

Alum Springs to Industrial Park: The upper reaches in the vicinity of Alum Springs and Cross Pike south of Lebanon Road are narrow. The topography of the area is rolling and used for agricultural operations, primarily pasture. Cattle and horses have access to the stream, contributing to the high level of nutrients and algae visible in the water. As the creek approaches town it is fairly open. In many areas the riparian vegetation that naturally occurs along creekbanks has been disturbed and replaced with grass to the water's edge.

Industrial Park West of Bypass: West of the bypass the meandering course of Clarks Run hugs the base of the ridge where the industrial facilities of American Greetings and

the John Hill Bailey Industrial Park are located. The creek corridor roughly parallels the route of Lebanon Road. A wide floodplain separates the stream from Lebanon Road to the north. There are no buildings in the floodplain. Some channelization has occurred in the vicinity of access roads to the industries. The character of the landscape is open with scattered mature trees and wildflowers. The creek itself exhibits a high degree of algae.

Danville Bypass to Railroad Bridges: Clarks Run passes beneath the Danville Bypass (US 127) and into Enterprise Industrial Area. There is a ridge on the south side of the creek, and to the north a vacant floodplain separates the creek from Lebanon Road and industrial buildings. The parking lot for Matthews is built up above the floodplain. The area that measures approximately a mile between the bypass and the railroad bridge is characterized by 3 to 5 foot banks. Debris from flash flooding hangs high in the trees and there is significant bank erosion, which increases the sediment load on the creek. On the south side of the creek is undeveloped pasture land. There is a greater diversity of tree and understory species along this stretch of the creek. The wide setback from industries protects the creek as a wildlife corridor; there is evidence of deer on the Matthews property.

Railroad Bridges to Fourth / Third Street Bridges: In the vicinity of the double railroad bridges, bedrock becomes visible in the creek bed. For the first half mile of the corridor, the areas on both the north and south sides of the creek are undeveloped. Mature trees line the stream on both sides. To the north, a grassy field which was once used as a landfill is owned by Southern Railroad. A concrete dam creates a pool in which fish have been sighted. The area is very scenic with potential picnic areas. However, there is no vehicular access.

The second half mile is more industrial with storage tanks owned by the railroad located north of the creek and warehouses owned by a moving company located adjacent to the creek. The vegetation along the creek in the industrial area is dense and composed primarily of invasive thickets of honeysuckle up to the Fourth St. bridge. South of the creek is an undeveloped flood plain adjacent to the fire station. The creek in this vicinity is tree-lined and invisible.

Fourth / Third St. Bridges to Second Street: The most visible section of the creek is found in the vicinity of the juncture of Fourth and Third Streets, which is a significant entry to downtown from the bypass. The footers on the new bridges are wide enough to serve as shelves which could connect to trails along the creek and allow people to walk beneath the bridges. Storm water from downtown enters the creek here.

The 1000-foot section between the Third and Second Street bridges is lined with vegetation. The creek has a rocky bottom with many riffles. The flood plain on both sides has been filled with construction debris. There are remnants of mid-nineteenth century stone walls along the creek and the foundations of a structure, possibly a mill.

Second St. Bridge to KY 52: The terrain on the north side of the creek remains relatively flat with a wide floodplain while the south side is narrow along the base of

Duncan Hill, which rises steeply to a fifty-foot elevation above that of the creek. On the north side of the creek a former landfill is being developed by the city as Batewood Park. Trees have already been planted and a trail, pavilion and pedestrian bridge are scheduled to be built during the fall of 1993. On the east end of the park is the former site of a sewage treatment plant. On the north side of the creek; atop Duncan Hill, are residences and Hilldale, a publicly-owned cemetery. There is evidence of dumping along the hillside behind the residences on Duncan Hill.

A tributary on the north side connects the creek to Green Street 3000 feet to the north through property owned by the Kentucky School for the Deaf and the Danville Board of Education. Four schools are within a half mile of the creek in this vicinity: on the north Kentucky School for the Deaf, Bate Middle School, and Jenny Rogers Elementary and on the south Hogsett Elementary School.

Clark's Run leaves the park area and enters an undeveloped area, paralleling US 150 (Stanford Road) for a short distance. At the end of Gose Pike is a place where vehicles cross the creek to gain access to Duncan Hill Road and US 150.

US 150 to Lake Herrington: Clarks Run passes beneath US 150 and into the vicinity of the Danville Sewage Treatment Plant. Approximately 3500 feet downstream from the US 150 bridge, Clarks Run is joined by Ball's Run and then flows beneath KY 52. This section of the creek is bordered by agricultural operations. The creek heads due north to come close to the Danville Country Club before heading due east approximately three miles to empty into Lake Herrington, an impoundment of the Dix River. Steep wooded bluffs alternate with wide floodplains in this rural section of the creek, which has rock palisades and tributary waterfalls as it approaches the lake.

Natural Resource Issues: Clarks Run has unique physical qualities that are not recognized in the community. Within the city limits of Danville, Clarks Run is virtually invisible. West of S. Second Street, its course is obscured by vegetation and buildings. There are few bridges from which to view the waterway. Inside Danville, only four bridges cross the waterway (Danville Bypass, S. Fourth St, S. Third St., and S. Second St.). The only long stretch of creek that is visible or easily accessible is on the south side of Batewood Park east of South Second Street.

Despite the fact that Clarks Run is less than a mile from the downtown commercial district, most of Danville's citizens have never experienced the meandering waterway with its tree stands, birds, and soothing qualities, which make it a unique natural area. The vegetation along Clarks Run plays several significant roles. There are beautiful wildflowers and diverse tree species along the creek. In some areas the trees and shrubs along Clarks Run hide the creek from view and present a virtually impenetrable thicket. The vegetation also provides cover and food for wildlife and fish. Overhanging branches keep the water cool, a necessary habitat requirement for fish and some other aquatic species. The root systems of the plants stabilize the creek bank and filter sediments from overland runoff to improve water quality.

Within the City, there have been reports of herons, raccoons, deer, and even coyotes along the creek. The creek's role as a source of food, water and cover for wildlife needs to be protected and enhanced.

Tributaries: Clarks Run is not an isolated feature, but is part of the community's whole system of recreation, livability, and historic awareness. The creek's tributaries are not only important parts of the stormwater drainage system. The tributaries also extend the qualities of the creek into the community and provide potential access points to the stream corridor. Many of the tributaries, such as Town Spring Branch, which extends through the Kentucky School for the Deaf and Bate Middle School properties, are tree-lined and have water flow during much of the year. The tributaries can provide off-street connections to schools and other community resources. The grades of the tributaries are gradual and will aid in making Clarks Run accessible to people of all physical ability levels.

Environmental Education: Clarks Run provides a unique opportunity to be an environmental education "lab" for the four schools located nearby. Field trips to the creek using trails interlinked with schools would fulfill the spirit of the Kentucky Educational Reform Act, which encourages the use of natural resources in the community as living classrooms.

3. *Natural Resources Action Agenda*

- a. **Access to the creek's natural qualities:** The City of Danville and Clarks Run Committee should complete the detailed planning and design for a trails and parks system that will make the unique natural qualities of Clarks Run an interconnected part of the community.

Clarks Run's proximity to residential neighborhoods and schools is a special opportunity. Other communities have parks with natural areas, but they are usually located far away from the urban area. For instance, Fayette County's natural area called Ravens Run is located in the southeast end of the county, more than 12 miles from downtown Lexington. The Clarks Run Parks and Trails Plan, which is discussed in more detail in Chapter III, would interconnect the creek with Danville's residential, commercial, and industrial areas. The natural qualities of the creek should be considered and highlighted during the design and construction process.

- ▶ Retain the natural quality of the creek corridor as trails and other recreational features are developed.
 - ▶ Include passive areas for walking, benches, and picnicking.
- b. **Wildlife:** Protect and enhance Clarks Run's role as a corridor and water source for wildlife.

As the Clarks Run corridor is developed, it will be important to retain some cover areas for wildlife, birds, and fish. Wading birds such as green herons have been observed in the vicinity. New plantings should provide additional food for wildlife to increase the creek corridor's attractiveness to migrating birds, animals, and butterflies.

- ▶ Retain some thickets of native plants that supply food and cover for wildlife.
 - ▶ In new plantings along the creek, include plants that produce food for wildlife and birds.
 - ▶ Work with groups like Ducks Unlimited to plant areas to attract migrating birds.
 - ▶ Encourage the use of the creek for nature observation during the Audubon Christmas bird count and scout nature projects.
- c. **Tributaries:** Take advantage of the creek's tributaries to extend the qualities of the creek into the community and provide potential access points.

Through trails linking the tributaries with existing sidewalks, Clarks Run can be linked to downtown Danville, residential neighborhoods, and schools. As the trail system is designed, attention to the natural resources of the tributaries can extend the special environmental qualities of Clarks Run into the community.

- ▶ Inventory the condition of tributary banks and water flow. Inventory vegetation conditions and study the need for vegetation management, new plantings, and bank restoration and cleanup in concert with trail development.
 - ▶ Use trail construction along tributaries and the creek as demonstrations of methods to minimize sedimentation and erosion during construction near waterways.
- d. **Vegetation:** Protect, restore and manage the vegetation along Clarks Run.

This should receive major attention in further planning for the corridor. Active planning and management is needed of Clark Run's riparian vegetation. Protection is appropriate in areas where there is a diversity of tree and understory species performing the many natural functions of creekbank vegetation: erosion control, food and cover for wildlife, etc. Carefully selective removal and replanting may be needed to open up views and public access to the creek in areas that are currently impenetrable due to invasive honeysuckle. New plantings are needed in some areas to restore a natural balance of vegetation, to control erosion, and to highlight the creek's beauty. Any planting and vegetation management plans must take into consideration that riparian areas contain special ecosystems, which place unique demands on vegetation.

- ▶ Inventory existing vegetation to determine locations of native trees and shrubs, areas where there is erosion of creekbanks, and locations of invasive species. Develop a vegetation management / protection / restoration plan specific to these three types of areas.

- ▶ Selectively clear for trail development, leaving some dead trees and logs for wildlife habitats. Design trails for protection from erosion.
 - ▶ Determine the types of habitats in the woodlands along the creek: mesic, hydric, floodplain, xeric. New plantings should be compatible with the conditions of these environments and should play a role in environmental education. Examine stratification levels within the existing vegetation: trees, understory, shrub, herbaceous layer. Determine the needs for each layer in the areas inventoried.
 - ▶ Use the way that the vegetation is managed along Clarks Run as a demonstration for privately-owned areas along the creek. Develop a Vegetation Management Handbook for private property owners and City agencies.
 - ▶ Seek technical assistance from the Soil Conservation Service and funding assistance from the Small Business Assistance (SBA) Program for tree planting programs to restore vegetation.
 - ▶ Reduce maintenance and mowing costs by using native plants. Use wildflowers and grasses instead of a manicured type of landscape.
- e. **Education:** Develop an environmental education lab on Clarks Run for the four schools located nearby.

Incorporate field activities and lessons about the natural features of the creek into the proposed environmental education program (see also Chapter III). Field trips to Clarks Run could highlight the ecosystem of small streams in the Bluegrass and the stewardship values and activities needed to protect the creek's wildlife and vegetation.

- ▶ Create a tree walk by the identification of the trees along the trail.
- ▶ Involve school groups in the vegetation inventory, replanting programs, and vegetation management planning activities.

B. HISTORIC RESOURCES

1. *Issues*

- a. **Community identity:** Clarks Run played a significant role in the founding of Danville and should be part of the historical identity of Danville. However, the creek is not tied to other historic resources in literature about the city.
- b. **Identification and protection:** The historic resources related to Clarks Run are not identified or protected like the community's other historic resources.
- c. **Tourism:** Clarks Run could serve a supporting role to cultural tourism and other historic resources.

2. *Background*

History of Clarks Run: Clarks Run, Hanging Fork, and Dick's River were the three waterways identified in the Danville area in 1784 on Fackler's map of Kentucky. The creek was named for George Clark, a brother-in-law of William Whitley, who had a station or fortified cabin on the north bank of Clark's Run. According to Fackler, Clark improved the land in 1776 and produced a corn crop in 1777. A stone house called the "fort" was still standing in the vicinity of the fork of the Lancaster and Stanford Pikes when Fackler published his history of Danville in 1941 (Fackler, 1941: 4).

From Batewood Park on the east end of Clarks Run north along property owned by Kentucky School for the Deaf runs a tributary known historically as Town Spring Branch. The branch and the spring from which it originates are shown on the original plat of Danville filed in 1797 (Fackler, 1941: frontispiece). On the Danville section of the 1876 Beers Map of Mercer and Boyle County, the area along the creek east of South Second Street or Batewood Park was identified as "Mrs. Tomkins Mile Trotting Track." The 1876 map shows bridges across Clarks Run at Fourth and Second Streets.

During the field work for the Clarks Run Corridor Plan, mid-nineteenth century stone retaining walls were noted along the creek corridor and some of the tributaries between South Third and South Second Street. Other stone walls that might have served as foundations for buildings were also visible. None of the stone walls in this area had been previously surveyed and will require additional research to determine their original function and history.

History of Danville: The town of Danville, established as Crow's Station by the Virginia legislature in 1784, predates the formation of Boyle County from portions of Lincoln and Mercer in 1842. A series of conventions held in Constitution Square in the late eighteenth century determined much of the form of Kentucky's state government. Twelve conventions were held there from December 1784 to April 1792 with delegates representing the Kentucky District of Virginia. The convention sent petitions to the Virginia Assembly expressing the need for protection from Indians, establishment of a

western court, and separation of Kentucky from Virginia. As the seat of government in Kentucky during the time period, Danville had the distinction of having the first courthouse, jail, and post office in the state as well as one of its first libraries.

During the same time period, the Presbyterians started Transylvania Academy in Danville under the guidance of David Rice. Rice was also a delegate to the conventions and argued for a section in the proposed state constitution which would allow for the gradual abolition of slavery. Transylvania Academy was moved to Lexington due to a lack of subscribers in Danville. There the school grew until the Presbyterian Church became dissatisfied with the liberal atmosphere of the school in the early nineteenth century. The Presbyterians petitioned the Kentucky General Assembly to charter another university which would be under both church and state control. The legislature's action resulted in the establishment of Centre College in Danville in 1819.

The Kentucky Asylum for the tuition of the deaf was created by an act of the General Assembly in 1822 and established in Danville. It was the first state-supported school for the deaf in the nation. Elias Barber, a member of the Kentucky Senate from Green County, was instrumental in getting the legislation passed. His daughter Lucy was one of the first students at the school, which was first located at the intersection of Main and Fourth Streets.

Prior to the Civil War, a building boom in Danville resulted in the construction of a large number of Greek Revival residences designed by members of the Russel family. Danville became the county seat when Boyle County was formed from parts of Mercer and Lincoln in 1842. A devastating fire in 1860 destroyed much of the downtown area leaving few commercial buildings which predate the Civil War. Danville's involvement in the Civil War peaked when its churches and courthouse were used as temporary hospitals for the wounded soldiers after the battle of Perryville.

The Southern Railroad reached Danville in 1877. Danville became the major link between Cincinnati and its southern markets. The late nineteenth century architecture found in Danville's downtown and residential districts reflect this period of growth.

Historic Sites: From the Boyle County survey files of the Kentucky Heritage Council in Frankfort, 416 individual sites have been surveyed to date in Boyle County outside the city limits of Danville. Within the city limits of Danville, 184 individual sites have been surveyed. The following chart lists the sites near Clarks Run with their protection status.

Survey #: Site number assigned by the Kentucky Heritage Council, the State Historic Preservation Office in Frankfort

Name: Historic name of the property

Sta.: Status of the property relative to the National Register of Historic Places

S Survey
NR Listed on the National Register

NRQ National Register Quality
 Elig Determined Eligible or not listed on the National Register, but
 determined by the National Park Service to meet National
 Register criteria

Survey #	Name	Address	Owner	Sta.
Boyle County				
Bo-308	House	KY 34	Caldwell	S
Bo-309	Caldwell-Hopkins	Lebanon Rd	RD Stigall	NRQ
Bo-310	James Wilson Hse.	KY 34	Ms. Chas. Hay	Elig.
Bo-315	H.Cohen Hse.	KY 34	KE Rothwell	S
Bo-316	W. Grimes Hse.	KY 34		NRQ
Bo-318	JJ Moore Hse.		Casey	S
Bo-367	WM Crow Hse.		Thelma Oleo	NR
Bo-368	Bryant-Slaughter		AD Hammond	NRQ
Bo-369	House	KY 52		S
Bo-370	House			S
Bo-371	House			S
Bo-372	L.Yeager Hse.	Pope Rd		S
Bo-373	Log Barn	Pope Rd		S
Bo-408	Spring Hse.	Gose Pke		S
Bo-409	WD Smith Hse.		Zay Case	S
Bo-411	Owsley Hse.	Stanford Rd		S
Bo-414	Guest Hse.		WR Whitehour	NRQ
Bo-415	Marshall Hse.		Ancil Shepherd	NR

Danville Sites

	Old Crow Inn	Stanford Rd.		NR
Bo-D-133	McClure Barbee Hse	S.4th St.		NR
Bo-D-137	Russel-Wallace	359 S. 4th	Geo.Cunningham	S
Bo-D-138	Crutchfield Hse.	446 Bate St.	Funeral Hme.	S
Bo-D-139	Benj. Prall Hse.	512 S. 4th	Salvat. Army	S
Bo-D-141	Willis-Russel Hse.	200 Walnut	Jos. Morley	S
Bo-D-143	St. James AME	Walnut		S

Within the city limits of Danville, there are also 5 historic districts listed on the National Register: Downtown Commercial, Lexington-Broadway, East Main Street, Maple Avenue, and Warehouse Area.

Historic resources have a prominent place in Danville's tourism brochures. Several of the significant buildings highlighted in Danville's central area are described below:

Old Centre

West Main and West Walnut

Centre College was established in 1819. Old Centre was erected in 1820 by Robert Russel, Jr., a significant early nineteenth century builder in Danville. Old Centre is believed to be the oldest college building in the south, west of the Alleghenies.

Craik House

763 West Main Street

The Craik House was built circa 1858 by W.I. Moore in the Italianate style. Since 1937 it has served as the home of the Centre College president.

Sinking Springs

West main on Centre College Campus

The sinkhole and spring were an early Indian camp site and possibly served as the location of Thomas Harrod's cabin in 1774-76.

McDowell Park

West Main Street next to Church

McDowell Park originally, but not exclusively, served as the burying grounds of the Old First Presbyterian Church. It contains the graves and memorials to Ephraim McDowell and Sarah Shelby McDowell, the Rev. David Rice, and other notable people in Danville's early history.

Old First Presbyterian Church

West Main Street

The congregation of the church was formed by the Rev. David Rice in 1783-84 as "Concord Presbyterian." The sanctuary dates to circa 1831. Earlier buildings of 1788 and 1812 were sited to the west.

St. Patrick's Church

141 N. Fifth Street

St. Patrick's Church is the oldest Roman Catholic Church building still standing in Kentucky. It was built between 1807-1810 on land given to David McIlvoy, early merchant and large land-owner. It was converted to a two-story residence in 1835 by Stephen Barnett. Some graves remain on the property.

Boyle County Courthouse

West Main Street

The courthouse was built circa 1860-62 by James Carrigan after the courthouse of 1844 fell in the Great Fire. Carrigan, according to local lore, was inspired by Sir Christopher Wren. The new building was completed in time to be used by the federal government as a hospital following the Battle of Perryville, October 8, 1862.

Trinity Episcopal Church

320 West Main Street

The congregation of Trinity Episcopal Church was formed in 1829. It is the oldest Danville church building, 1830; tower added 1842; rebuilt on original walls following destruction in the 1860 fire. First rector, Gideon McMillan, died in the cholera epidemic of 1833 and lies buried under the present chancel.

McClure-Barbee House

304 South Fourth Street

The McClure-Barbee House was built circa 1845-50 by Robert Russel, Jr. for Samuel Barbee. It is noted for the inset portico in the Greek Revival facade.

Jacob's Hall

310 West Second Street

Kentucky School for the Deaf was founded in 1823 as the first tax-supported school for deaf children in the United States. The institution moved to the present campus in 1827. John Adamson Jacob was the guiding hand and superintendent from 1825-1869. Jacob's Hall, built 1855-57 by Lewinski & McMurry of Lexington, is a National Historic Monument.

Willis-Russel House

119 East Walnut Street

Built prior to 1811 by Captain Robert Craddock, who bequeathed it to Willis Russel, one of Craddock's freed slaves. Russel, according to tradition, started the first school for blacks in Danville.

Bellevue Cemetery

First Street

Bellevue Cemetery was opened by Robert Montgomery and William Speed in 1847. Adjoining the private cemetery on the west is the Danville National Cemetery, for Union soldiers who were killed in the Battle of Perryville in October, 1862.

Old Crow Inn

Stanford Avenue

The stone manor was built on land purchased from John Crow in 1781 by James Wright. The construction begun prior to 1797 (possibly as early as 1785) by Thomas Barbee and completed by Joshua Barbee.

William Crow House

Built circa 1783, it is believed to be the first stone house in Kentucky.

Constitution Square State Historic Site

105 East Walnut Street

Danville's prominent location on the Wilderness Road caused it to become a crossroad for early settlers and center of political activity. By 1785 Danville was chosen as Kentucky's first seat of government, and a meetinghouse, courthouse and jail were built to administer the growing territory. Still bound to Virginia laws, several Danville citizens formed the Political Club that recognized the need for a convention to discuss statehood. Between 1784-1792 ten constitutional conventions took place at the courthouse of Constitution Square. In 1790 Kentucky delegates accepted Virginia's terms for separation, and the state constitution was drafted at the final convention in April 1792. Shortly thereafter, on June 1, 1792, Kentucky became the fifteenth state in the union. Buildings included on the historic site now operated by the state include:

The Constitution Square Courthouse	Jail	Meetinghouse
Alban Goldsmith House	Post Office	Fisher's Row
Watts-Bell House	Schoolhouse	Grayson's Tavern

McDowell House

125 South Second Street

The house was built prior to 1802 when it was purchased by Dr. Ephraim McDowell, who remodeled it as an office and residence. Brick ell is of much earlier date. This Federal style house, restored 1938, is now a National Historic Landmark. McDowell's famous ovariectomy was performed without anesthesia on Jane Todd Crawford here on December 25, 1809.

3. *Historic Resources Action Agenda*

- a. **Community identity:** Gain recognition of the significant role Clarks Run played in the founding of Danville, and relate Clarks Run to other historic resources in literature about the city.
 - ▶ Get Clarks Run on the maps used to promote Danville. It needs to be a recognizable and well-known geographical feature. (Heart of Danville and Danville-Boyle County Tourism Commission)
 - ▶ Emphasize linkage with other historic sites including Constitution Square/ McDowell House and historic districts. Clarks Run has potential to be the south end of the historic/ commercial corridors of South 2nd, 3rd, and 4th Streets. (Heart of Danville)
 - ▶ Place signs identifying the creek at major bridges (US 127/ Bypass; Third Street Bridge; Fourth St. Bridge; US 150 (Stanford Rd.); KY 52 (Lancaster Rd.). (City of Danville)
 - ▶ Build support facilities to increase access (parking areas, rest rooms, trails, and overlooks). (City of Danville and Danville-Boyle County Recreation Department)
- b. **Identification and protection:** Conduct research to locate and identify historic and prehistoric resources associated with Clarks Run and develop measures for their protection and educational interpretation.
 - ▶ Encourage high school history students to research the milling activities along Clarks Run. Clarks Run is a convenient place to demonstrate the historic interaction of the natural and cultural environment and the interaction of man with the natural environment. Such projects can help Danville's school system fulfill the requirements of the Kentucky Educational Reform Act.
 - ▶ Conduct archeology projects along the creek corridor with funding from the Kentucky Heritage Council. Students can unearth objects that can be displayed in a local museum to illustrate the history of the creek.

C. ILLEGAL DUMPING

1. *Issues*

- a. **Interrelationship with other creek issues:** Illegal dumping is interrelated with all other issues for Clarks Run. It degrades water quality, damages natural qualities, impedes access to historic resources, hinders flood management, and discourages community revitalization.
- b. **Locations:** Illegal dumping appears to be concentrated in the urban blocks closest to the area proposed for the first trail construction.
- c. **Water quality and floodplain impacts:** Illegal dumping has resulted in a loss of floodplain and an impact on water quality from the leaching of elements from dumps.

2. *Background*

The illegal dumps along Clarks Run are symbolic of the community's past attitude towards the creek. The dumps make the experience of the creek very unpleasant. They also obscure the historic features including stone walls and building foundations located along the creek corridor. Clean Community has sponsored a number of cleanups and has made a vast improvement, especially in the area of Batewood Park.

A focus on illegal dumping provides the opportunity to show how Clarks Run relates to the entire watershed and is not a separate corridor removed from everything else.

3. *Illegal Dumping Action Agenda*

- a. **Interrelationship with other creek issues:** The City and Clean Community should continue concerted efforts to clean up illegal dumps on the creekbanks.
 - ▶ Use cleanups as educational tool by documenting the dumps before and after cleanups. Involve people from all sectors of the community.
 - ▶ Continue major cleanup effort along the creek. Provide Clean Community with the government support and equipment the program needs to remove the remaining major areas of construction waste.
 - ▶ Support Clean Community's educational program in the schools. In the long term, this will be the most effective way to stop illegal dumping.
- b. **Locations:** Focus cleanup efforts to support development of the trail and parks system along the creek.

Clean Community has surveyed the creek and has identified locations of dumps along its banks. Illegal dumping appears to be concentrated in the urban blocks closest to the area proposed for the first trail construction.

- ▶ Concentrate on the areas along South 2nd, 3rd, and 4th streets in advance of trail development to improve water quality and appearance of the creek. The cleanup of these areas must occur early in the development of the creek corridor.
- ▶ Have the City of Danville take the lead in ending dumping of construction and demolition materials on the creekbanks. For Clarks Run trail development include a clause in construction contracts that will monitor disposal of construction waste.
- ▶ Monitor areas that have been used as dumps in the past to make sure that dumping does not start again. Encourage public recreational access to sites where feasible, so that higher visibility discourages dumping.
- ▶ Encourage property owners, businesses, school and civic groups to "adopt" sections of the creek, to help with monitoring and enforcement, and to stop dumps as soon as they start.

c. **Water quality and floodplain impacts:** Educate property owners and developers along the creek concerning the value of the floodplain to the community and the negative impacts of dumping to the floodplain and water quality.

- ▶ Stop future loss of floodplain through policies in the comprehensive plan and local review of development along the creek. Encourage developers to understand how the creek can serve as an amenity. Adopt regulations and monitor development projects adjacent to the creek to ensure that construction debris and chemicals such as paint are not dumped on the creekbanks.
- ▶ Offer assistance to clean up dumps on private property in exchange for public access easements, where feasible.
- ▶ Consider the need for a hazardous materials collection station in the community, to give a safe alternative to dumping of household, business and agricultural chemicals in sinkholes and on creekbanks.

D. WATER QUALITY

1. Issues

- a. **More information:** If recreational access to the creek is encouraged, more information is needed about current water quality and any possible concerns (such as for fishing or recreational contact with the water). While there have been several water quality studies, many are out of date or have not been analyzed to show water quality trends.
- b. **The overabundance of nutrients** and the resulting algae blooms affect the recreational experience and enjoyment of the creek. Eutrophication also impairs the habitat of oxygen-dependent species, such as fish. The source of the nutrients needs to be verified to decide what actions should be taken.
- c. **Herrington Lake:** The water quality of Clarks Run also may be contributing to eutrophication in Herrington Lake, an important recreational and quality of life resource for the community.

2. Background

Clarks Run is a tributary of the Dix River, and empties into the impounded section of the river that creates Herrington Lake. It is important to know the current water quality of Clarks Run because of the possible impact on recreational uses and natural habitat, not only within the stream itself, but also for the lake, which is valued by the people in this community.

Clarks Run Water Quality:

Clarks Run has never had an intensive survey done of its chemistry and biology, a process known as a Stream Use Designation Study. However, official reports and water quality monitoring through several different programs provide some information about the stream's past and current water quality. Most of the monitoring studies have been for a single purpose, and have never been compiled and considered together to indicate trends in water quality.

Official Reports on Clarks Run Water Quality: *"The 1992 Report to Congress on Water Quality,"* prepared by the Kentucky Natural Resources and Environmental Protection Cabinet, identifies the 8.0 miles of Clarks Run generally below Danville as "not supporting aquatic life." The causes given in the report were pH and organic enrichment. In 1987, an evaluation of the stream summarized in the Report to Congress found that Clarks Run is a "non-point source impacted stream." The pollutants identified were sediment, bacteria, and nutrients; the potential causes were given as septic tanks, land development, and pastureland.

Water Watch is a state-assisted, community-based monitoring program. A Water Watch

team for Clarks Run, organized by teachers at the Boyle County Middle School and staff at the Soil Conservation Service, has been monitoring a location on the creek 1 mile west of the 150 / 34 intersection near the Wilson house. The team monitors for dissolved oxygen, nitrogen, water temperature, ph, iron, chlorides, and macroinvertebrates. The raw data from the monitoring is available in monthly reports.

The state Water Watch coordinator can provide technical assistance to help the local water watch teams prepare a summary of the monthly monitoring reports. The report would indicate how monitored characteristics relate to water quality standards and whether there are any discernable trends or problems.

A preliminary review of the Water Watch monitoring data and knowledge of the stream's history by staff at the Division of Water and field surveys by the consultants indicate the following basic information. Monitoring indicates that **dissolved oxygen** is well within acceptable limits. However, Clarks Run is **nutrient-rich**. Although typical nitrogen levels within the stream of 4 parts per million (ppm) are well within the "acceptable" limits of less than 10 ppm given by the Water Watch program, this amount of nitrogen is twice the state average for similar streams (2 ppm). The cause of the elevated levels is not known; potential sources of phosphorous and nitrogen could include both urban and rural sources. The pattern of algae blooms in the creek during a May 1993 field visit indicate that the creek is already nutrient-rich before it enters the Danville urban area.

Permitted Dischargers to Clarks Run: The state Department of Environmental Protection, Division of Water (DOW), KPDES Branch issues permits for and maintains records of untreated and treated wastewater discharges to waterways. There are currently 5 permitted discharges to Clarks Run within the Danville area, as listed on the following page.

Copies of the current permits are included in the Assessment Report. The permits were provided by DOW and have more specific information about the permitted limits and treatment methods for effluent. Each permit set the maximum amount of an "effluent characteristic" (a component of the wastewater such as chlorine) that is allowed for that outfall, according to accepted standards. The wastewater is then monitored to ensure that standards are not violated.

According to the Division of Water, although permit violations were a common occurrence through the 1970's, a concerted effort on the community's part has brought discharges into compliance with standards. DOW reports that, since 1990, discharges have largely remained within acceptable limits, and there have been few violations.

Sewage Treatment System: Sewage treatment plants are also permitted and monitored under the KPDES program. According to the Division of Water, the new Danville wastewater treatment facility has had only occasional, minor episodes of discharges that exceed permit limits, which are generally typical of modern treatment facilities. Water quality monitoring has occurred upstream and downstream from the effluent outfall for the plant. The results are available through DOW and the City.

KPDES PERMITTED DISCHARGERS TO CLARKS RUN
 Permits As of May 1993; Provided by the
 Division of Water, Natural Resources and Environmental Protection Cabinet

Discharger Name & Address	Permit Expiration	Effluent Characteristics	Effluent Type & Treatment
R.R. Donnelley & Sons Company John Hill Bailey Industrial Park, KY 34	April 1996	Suspended Solids, Chlorine, Oil & Grease, Chromium, Zinc	Stormwater, cooling tower. Retention pond
City of Danville Wastewater Treatment Plant, Old Stanford Road	Feb. 1995	BOD, Suspended Solids, Fecal Coliform Bacteria Ammonia, Chlorine, Phosphorous, Dissolved O2	Wastewater Treatment Plant
Caldwell Stone Company	Sept. 1995	** Suspended Solids, ph Oil & Grease, Aluminum, Lead, Tin, Zinc Settleable solids	Quarry water, wash water storm runoff
Phillips Lighting Company Vaksdahl Avenue	Mar. 1995	Suspended Solids, Lead Oil & Grease	Non-contact cooling water, storm runoff, process wastewater. Precipitation, sedimentation, oil skimming, neutralization
Matsushitu Floor Care Co.	Oct. 1993	Chromium, Zinc, residual chlorine	Noncontact cooling water, stormwater runoff.

** This is a general permit for all non-coal mining, and includes effluent characteristics for operations such as asphaltic minerals and flourspar that may not be applicable to this site.

Danville has been diligent in minimizing the potential for sewer system discharges to the creek during rains, a common problem for urban sewer systems. During rains, stormwater infiltrates sewer pipes, and the large volume of flow overtaxes the capacity of pumping stations and the treatment plant. A full-time crew through the City's Wastewater Rehabilitation Department works to find and seal leaks to the system. The City has worked extensively to reduce occurrences of bypasses of sewage system lift stations. The number of lift stations has been reduce from 23 city-wide to only 5, 4 of which are located on Clarks Run. The City is considering elimination of one additional lift station. The treatment plant itself has lagoon storage for 25 million gallons of effluent, for times when storm flows exceed the 3.5 million gallons per day treatment capacity of the plant. It should be noted that many older plants do not have this feature, which prevents discharge of effluent that has been only partially treated.

Landfills: There are three official landfills along Clarks Run: Terrell Drive (now Batewood Park), Frye's Lane, and Alum Springs. The Alum Springs Landfill, located at

the headwaters of the creek, is reported by area residents to have caused pollution from leachate. The site is no longer in operation, and closure plans for the landfill are currently under review by the state. The City of Danville co-owns the landfill, and intends to extend a sewer line to collect all leachate for treatment at the wastewater treatment plant. The line is scheduled for construction in 1993/94. Construction of the leachate collection system will proceed after state approval of the closure plans. Once the sewer line is in place, it will be possible to tie in many existing homes near Clarks Run that are on septic systems.

Closure plans have been implemented for the **Terrell Drive and Frye's Lane landfills**. In 1983, prior to preparation of the Terrell Drive Landfill Site Closure Plan, water and sediments within Clarks Run, soils, and groundwater were tested to determine whether the landfill was impacting the creek. This testing led to the conclusion that there are industrial wastes, including organics, inorganics, pesticides, PCB's, and chlorinated compounds, in the landfill. Samples taken upstream from the landfill, however, found that soil, water and sediments showed evidence of the same types of pollutants. The report speculated as to whether the Frye's Lane site, located upstream from the Terrell site and just downstream from the railroad trestles, might be contributing to these background levels, or whether there were other sources.

Both landfills now have leachate collection systems in place. These systems are monitored and deliver leachate to the sewage treatment plant. The Terrell Drive Site Closure Plan also recommended that groundwater and surface water in Clarks Run should be monitored for two years after closure, to determine the effectiveness of the leachate collection system. However, this was not required by the state.

Potential Groundwater Impacts: There is one known source of groundwater pollutants in the vicinity of Clarks Run. An area industry is currently under an "Agreed Order" with the state Division of Waste Management to remove solvents from groundwater. The solvent contamination appears to have occurred while the property was under previous ownership, between 1950 and 1970. It was not uncommon in the past for degreasers, which are highly volatile when exposed to air, to be poured out for disposal. These compounds persist in groundwater, however. There has been wide-spectrum testing of groundwater at this site and extensive dye tracings to study the migration of that groundwater. Over 50 sites were examined during dye tracing tests, extending downstream to within about a mile of the mouth of Clarks Run at the lake.

The testing has found levels of tri- and dichloroethene that are above standard in test wells and at one spring close to the facility, but not in Clarks Run or further downstream. The affected spring discharges to a tributary of Clarks Run that has been tested and shows levels of the compounds that are greatly reduced, but still over standard. (The levels are above the standard used by the Division of Waste Management, but below the standard used by the Division of Water for surface water) The Division of Waste Management has not yet determined whether there should be testing of Clarks Run, but expects that the compounds would be below detectable levels in the creek. Under the Agreed Order, the industry is cooperating fully and has agreed to remove the solvents from the groundwater.

There has also been die tracing and testing of groundwater at another industry site near Clarks Run. No contamination was found in springs traced to groundwater from the property. These two projects can be tracked through the Division of Waste Management by referring to KYD006395644 and KYD066899766.

Metals: Because of the impacts of pre-1980's discharges, according to the Division of Water, it is likely that there are heavy metals such as lead contained in the sediments of the creek. Any activity that disturbs sediments, such as channel cleanouts, vehicles driving within the creek, or the erosion and turbulence associated with flooding, may periodically increase the level of these contaminants in the water. These contaminants may also affect the habitat value of the creek.

Other potential water quality issues that may need further investigation include:

- The **railyards** could potentially have PCB contamination. Although there is no evidence concerning this, PCB's have been used as coolants in older locomotives, and the presence of PCB's is not uncommon in railyards.
- The **stockyards** are located near to the creek. There should be a determination of whether stormwater runoff from this area carries pollutants. Because the stockyards are under roof, and manure is disposed of off-site, this may not be a source of concern.
- The litter, oil, gasoline, asbestos, and other contaminants that are typical of **storm runoff from urban areas**, especially streets and parking lots, are a potential concern in any city. Although Danville is not a community yet affected by recent EPA regulations for treating stormwater runoff, the City may wish to consider what impact EPA stormwater regulations could have in the future.
- Careful adherence to the **pretreatment agreements** with Danville industries will continue to be a significant wastewater issue.
- **Surface runoff from the quarry** on Stanford Avenue / U.S. 150 and encroachment by quarried materials is altering the creek banks.
- The presence of extensive **illegal dumping** along the creek banks also presents a danger of toxic pollutants entering the stream.

Herrington Lake Water Quality:

Herrington Lake is currently monitored three times per year by the Division of Water. According to "The 1992 Report to Congress," the lake's water quality is considered acceptable to support the uses of domestic water supply and primary / secondary contact recreation. However, increasing phosphorous levels in Herrington Lake are contributing to eutrophic conditions and declining water quality and aquatic habitat. The designation of the lake was changed from "partially supporting uses" in 1989 to "not supporting uses"

in 1991 for warmwater aquatic habitat. According to the Report to Congress, municipal wastewater plants, agricultural runoff, and septic systems are suspected to be sources of the problem.

The state has established a new monitoring station at the 1805 bridge on Clarks Run to determine if the creek is contributing to the lake's phosphorous overload. Monthly monitoring is done for nitrogen and phosphorous. Data on metals may also be collected at the station. Raw monitoring data for the past year is available in the STORET computer system through DOW. The state has no plans to analyze the data until monitoring has been done for several years, to show trends. However, the information could be made available for analysis by the City or the College, if requested.

3. Water Quality Action Agenda

- a. **Water quality testing:** The City, Centre College, the University of Kentucky, the Soil Conservation Service, and Water Watch groups should collaborate to undertake expert analysis of existing water quality data, do additional monitoring, and recommend steps to address any identified pollution problems.

This plan recommends increased recreational access and educational activities at the creek, which will lead to children coming in contact with the water. Further information about water quality is needed to address any potential concerns.

- ▶ As a first priority, the City and experts at Centre College and U.K. should collaborate to examine all of the existing sources of data from past water quality testing, including ones mentioned in the assessment above such as results of the new DOW permanent monitoring station on Clarks Run. The City should request periodic summary reports from DOW on the findings from this station. As a part of this project, Water Watch groups should work with the Kentucky Water Watch Coordinator to analyze trends in their collected water quality data. There has also been periodic monitoring related to the Sewage Treatment Plant and some past work done by College biology classes. Students could be offered credit for a research project / master's thesis that would analyze trends in current data, compare the data to water quality standards, and recommend further steps.
- ▶ With assistance from Centre College and the City school system, Water Watch monitoring should be expanded to include sites above, within, and below Danville, to determine the different contributions of urban and rural uses to stream water quality. Various schools could be responsible for these sites and for monitoring of tributaries, as a part of the recommended environmental education program. Expanded monitoring should be coordinated with new testing undertaken by the City.
- ▶ The City should undertake new sampling at several locations along the creek to test for potential pollutants. Because pollutant levels in surface water can change

substantially from day to day and hour to hour, soil bank and sediment samples would give a more reliable analysis of typical stream conditions. A biological community assessment and fish tissue analysis would indicate whether there has been any bio-accumulation from pollutants such as lead or PCB's, giving a clearer picture of any long-term risk from contact with the water. The Division of Water could provide advice on a testing plan, and the Soil Conservation Service could assist with soil and sediment testing.

- b. **Reduction of non-point source pollution:** The Soil Conservation Service and County Conservation District could be requested to provide technical assistance to work with farm managers in voluntary programs to reduce nutrient loading and soil erosion.

Funding assistance is available from the EPA 319 non-point source program, which is a competitive grant program requiring a 40% minimum match. The grant selection criteria favor projects that implement innovative Best Management Practices in priority watersheds identified by DOW. Herrington Lake is a priority watershed, and any additional data on water quality problems in Clarks Run would support a grant application. Applications are typically due in June of each year. In other watersheds such as the Elkhorn, the Soil Conservation Service has spearheaded a 319 grant and has provided technical assistance. Scott County also has a county-funded, voluntary program for cost-sharing of improvements to fence and water livestock away from the creek.

- c. **Environmental study of railroad property:** The City is considering acquisition of the buffer property between the creek and the Frye's Lane landfill site. Due to the influence of the landfill and railroad, the City should undertake an assessment of any environmental hazards present on the property. In particular, the mound near the trestle should be investigated.
- d. **Landfill:** The City should continue to pursue closing and leachate collection for the Alum Springs Landfill and construction of the new sewer line. If monitoring indicates that there is septic system contamination of the creek, the City and County should work cooperatively with landowners to provide sanitary sewer service.
- e. **Quarry:** There should be a cooperative program with the quarry to reduce sedimentation and bank alterations.
- f. **Coordination:** The City should consider designating staff to monitor environmental factors relating to the creek. This person could coordinate with state agencies such as DOW and Waste Management to stay abreast of permit violations and enforcement. This staff could also coordinate City involvement in water quality testing.
- g. **Education:** The environmental education program recommended under "Natural Resources" should include a focus on water quality issues.

The Kentucky Education Reform Act encourages local communities to develop

environmental education curricula using community resources for learning. The proposed trail system to Clarks Run creates a wonderful opportunity to link schools and day care facilities with the creek for field trips. These hands-on educational programs should emphasize water quality and the changes in behaviour that everyone must make to reduce pollution. There should also be an educational outreach program to the community, to raise awareness about water quality problems and needed solutions. It would be very effective to involve youth in preparing and carrying out the community / adult educational awareness program.

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E. FLOOD MANAGEMENT

1. Issues

- a. **Flood protection:** "New development and infill development in the floodplain along the creek" could damage the creek's natural qualities and increase downstream flood volumes and velocities.
- b. **Existing flooding** is damaging creekbanks in the industrial area, where the creek has recreation potential and the greatest diversity of vegetation and habitat. Flooding also sends sediment loads downstream.

2. Background

Fill and development in the floodplain often accompany new development adjacent to a creek. This can have several potential negative impacts, including increased heights and velocities of floods and damage to the natural qualities of the creek due to removal of trees and regrading of creek banks. Comprehensive plan policies and development regulations concerning flood control methods and development within floodplains are important tools for protecting the natural qualities of a waterway.

Comprehensive plan policies: The Danville/Boyle County Comprehensive Plan includes a map showing flood hazard areas along the creek and has general policies concerning flood management. The goals and objectives call for minimizing the impact of flooding and controlling it "effectively and economically." The intent of this policy is unclear; it would appear to allow fill within the floodplain, channelization and other engineering methods to prevent flooding of new development. The Location Principles for Urban Land Uses (page 71) state: "No development should be allowed to be built in designated 100-year floodplain areas." This policy is far more restrictive, but is not in agreement with current Danville floodplain regulations. There may be a need to evaluate Comprehensive Plan policies and the City's floodplain regulations together, to ensure consistency.

Development regulations: Flood Damage Prevention regulations are found in Chapter 16, pages 117 through 128, of the Zoning Ordinance for Boyle County and the Cities of Danville, Junction City, and Perryville. This ordinance applies to all lands and proposed structures on those lands within areas of special flood hazard, as shown by the Federal Insurance Administration in its Flood Hazard Boundary and Floodway Maps. Areas of special flood hazard are defined as the lands within the floodplain subject to a one percent or greater chance of flooding in a given year. This is the same as the 100-year floodplain. (Throughout this summary, for simplicity "floodplain" refers to areas of special flood hazard.)

A development permit is required to apply the regulations of the ordinance. The Zoning Enforcement Officer is responsible to review the development permit to ensure the ordinance provisions are met. The Zoning Enforcement Officer also must notify DNREP

and adjacent communities prior to alteration or relocation of a watercourse.

Section 1650.2 provides that:

- ▶ Residential structures may be built within the floodplain if the lowest floor is elevated above the base (100-year) flood level.
- ▶ Commercial and industrial structures may be built within the floodplain under the same restrictions as above, or if parts of the structure located below the flood level are flood-proofed.
- ▶ Mobile homes in an existing mobile home park or existing mobile home subdivision may be placed in the floodway only if anchored.
- ▶ All other mobile homes may be placed in the floodway only if elevated above the base flood elevation on compacted fill or pilings.

Fill and other encroachments are allowed within the floodway only if:

- ▶ Certification is received from a professional engineer or architect that encroachments will not result in any increase in flood levels during the base flood. (This appears to be more stringent than state standards, which allow a cumulative increase of flood levels of 1 foot.)
- ▶ All other flood hazard reduction provisions are met.

The ordinance provides for variances in the following cases: (1) for reconstruction, rehab, or restoration of structures listed on the National Register of Historic Places; and (2) generally, for new construction and substantial improvements on lots of 1/2 acre or less that are surrounded by lots with existing structures below the base flood level. The ordinance also leaves an opening for variances for development on lots larger than 1/2 acre, but states that the technical justification required for approving the variance increases. Strict standards must be met for granting a variance, including that the project would not increase flood levels above the base flood discharge.

In essence, the ordinance provides for review of development to ensure the flood safety of structures. It also provides for review to ensure that encroachments will not raise 100-year flood levels. However, it is not intended to provide protection to the stream itself by limiting any potential impacts to the stream from grading and construction activities.

The existing ordinance may leave open the question of cumulative impacts. For each individual development, it is possible that standard computer projections of flood levels would show no change to flood levels. However, these computer programs, such as HEC2, typically are applied to evaluate impacts for a limited extent downstream. In addition, case-by-case permitting may not reveal the potential cumulative impact of many development projects over a period of time. In addition, the result of any substantial fill in the floodplain is that the flood waters that were once accommodated on the property are transferred downstream, and may increase flood volumes and velocities on other properties. Floodplain fill can have the effect of making the channel more "efficient" for handling flood waters, which speeds up their movement through the developed property. Property destruction from increased flood volumes and velocities, sedimentation, and erosion are common concerns of rural property owners in some communities who have experienced the downstream impacts of standard urban flood management policies.

Impacts to the creek from floodplain fill: Fill and grading in the floodplain also impact the valued natural resources and scenic qualities associated with creeks, through direct removal of vegetation or long-term damage due to soil loading on roots and changes to water tables. Grading that occurs close to streambanks can also be difficult to stabilize and revegetate, causing ongoing erosion control problems.

Thus far Danville has had little development adjacent to the creek and minor impacts to the floodplain, such as the short stretch of channelization at the Industrial Park. However, as recreation improvements open up access to the creek, parcels adjacent to the creek in the central area of the City will become attractive for infill development, and new development will occur to the east. The floodplain policies and regulations that govern these development projects will have significant consequences for Clarks Run.

Existing flooding conditions: There is currently a flooding problem in the area of the industrial park, especially downstream through the Matthews property. There is evidence of severe bank erosion, undercutting and movement of the streambanks, channel scouring, and deposition of flood-carried debris. This indicates high flood peaks. These floods appear to occur when there are heavy rains in the Knobs region, the headwaters of Clarks Run. Flooding moves through the City about 1/2 hour to 1 hour after the rain. The sharp bends in the creek and constrictions at the railroad bridges may detain floodwaters, because these signs are not seen downstream.

There are several concerns due to this. First of all, there is some potential that sediments in the creek contain heavy metal contamination from pre-1980's pollutants discharged to the stream. Disturbance of sediments during flooding could release toxics. Sediments also will settle out downstream, filling areas at bridges and dams. Secondly, this section of the creek has recreation potential for trails and picnic spots and also has the greatest diversity of tree and understory species. Bank erosion and flood debris is unsightly and is damaging to trees and streambank vegetation. Third, if recreation is encouraged in the creek, there could be safety hazards from flashfloods.

Study to evaluate City stormwater facilities and regulations: A study is currently underway through the City and Quest Engineers to evaluate the effectiveness of the existing stormwater system and the current Stormwater Management Ordinance and Flood Management Ordinance. This study is examining the existing flooding conditions in the Clarks Run area. Only those industries constructed since adoption of the Stormwater Management Ordinance have detention basins to slow the release of runoff from large paved areas and roofs. According to the City Engineer, however, the detained runoff may coincide with the delayed flood peaks caused by upstream runoff. Wholesale construction of additional retention basins in the industrial area may increase flooding. The stormwater study will address this question.

The study is also examining the tributaries of Clarks Run. Thus far, it appears that the only major flood capacity problems are at road crossings that have undersized culverts. Also, the tributary that enters the creek near Gose Pike may need some channel work. Otherwise, the City does not anticipate any major alterations or channelization of tributaries that would affect their suitability for trails leading to Clarks Run.

3. *Flood Management Action Agenda*

- a. **Creek floodplain protection policies:** The Planning Commission, City Engineer, and Clarks Run Committee should consider adopting more protective policies and regulations concerning fill, development, and utilities in the floodplain. This should be done as a part of the Comprehensive Plan Update, with follow-up revisions to ordinances if needed.

The Comprehensive Plan Update process is an opportunity to explore options for a wider-purpose creek corridor and floodplain protection ordinance. Policies that would limit floodplain fill and development and protect the natural qualities of Clarks Run should be carefully evaluated, weighing objectives such as the benefits to the community and to the marketability of new development, efficiency of land use, and a legally-defensible ordinance.

For instance, preservation of the floodplain could be used to address the recreational impacts of development. Case law supports a local government's ability to require dedication of land to meet the recreational demands created by a subdivision. In addition, a protected, scenic creek with trails and parks along it can enhance a development project, such as a residential subdivision, and help it compete with other projects that offer open space and recreational amenities.

In exchange for floodplain protection, more intensive land use could be allowed on portions of the property outside the floodplain. An overall creek corridor ordinance should also contain design guidelines concerning the construction of roads and utilities to protect the riparian area of the creek.

- b. **Existing flooding:** The ongoing stormwater management study should assess flooding problems affecting the industrial area and determine whether remediation is needed. The Soil Conservation Service and County Conservation District should be requested to provide technical assistance to help revegetate and stabilize creekbanks in the industrial area.

The City Engineer is currently studying this. Solutions should be compatible with the recreation and riparian protection policies of this plan, where feasible.

F. COMMUNITY REVITALIZATION AND GROWTH

1. *Issues*

- a. **Contribution to Community Image:** Danville hopes to attract new residents and businesses while protecting the city's very special qualities. Highlights of these qualities are the interrelationship between the natural and cultural environment, the presence of many mature trees throughout the city, and the ease of walking in many neighborhoods. Clarks Run could play a major role in the "liveability" of Danville, but the creek is currently "invisible" – inaccessible, not even seen from most roads and neighborhoods.
- b. **Catalyst for Revitalization:** Clarks Run can become a catalyst for revitalization in older areas of the city and quality new residential development at the eastern edge of the city. The amount of vacant and public / semipublic land adjacent to the central section of the creek through the older areas of the city is a tremendous opportunity.
- c. **Opportunities for Infill Development:** Infill development along the creek could play a positive or negative role for the community and creek, and the land uses and standards for infill development must be carefully thought through.
- d. **Property ownership patterns** along the creek afford both opportunities and drawbacks. There are many large, single-owner properties. There are also many small properties. This shows the need for involvement of property owners in a concerted effort to build consensus and support for the creek corridor and park / trails plans.
- h. **Street Improvements:** The creek is a barrier to transportation (roads), but also an opportunity for enhancing the City's image at entrances to town. New roads constructed over and adjacent to the creek could ignore and damage the creek, or could provide opportunities for visual and physical access. The major creek crossing at 3rd and 4th Streets does not take advantage of the beauty associated with the creek. A new east-west crosstown connector is proposed to follow the route of the creek.

2. *Background*

To help describe land use, ownership patterns, and community planning proposals for the Clarks Run corridor, the stream has been divided into three sections. The western section (from the western urban edge to the railroad) is rapidly developing with industrial uses in large properties. The central section (generally from the Railroad to Stanford Avenue) is the older developed area of the city. The eastern area (from Stanford Avenue to the eastern urban edge) is currently rural, and is proposed for future residential development.

Existing Land Use and Property Ownership:

Existing land uses in the creek's vicinity have been mapped. Property owners adjacent to the stream and in the area of proposed connecting trails have been mapped, and a list of parcel numbers and owner names has been prepared.

The western area is dominated by recent and older industrial development and supporting commercial uses along the Bypass and Lebanon Road. There are many large private parcels of land, and the typical development design has left major areas of open space. The creek is a "featured attraction" at the entrances of newer industries located south of the stream. As yet there has been little alteration of the natural channel or development within the floodplain. The new Day Care Center, at the Lebanon / Bypass intersection, is near to the stream. Southern Railroad owns an extensive parcel of undeveloped land on the west side of the railroad.

The patterns of older urban development in the **central area** show that Clarks Run has not been treated as a desirable or attractive feature of the city. Industrial uses, strip commercial, and lower-income housing were relegated to the stream corridor. The many conflicts between residential and scattered industrial and commercial uses has contributed to the decline of these neighborhoods.

This presents both challenges and opportunities. *The amount of vacant and public / semipublic land in this section is a tremendous opportunity. Over one-half of the stream frontage in the central section falls into this category.* This includes properties held by the City (Batewood Park, Danville Sewage Treatment Plant, old sewage treatment plant site, and parcel on Duncan Hill Road), the Kentucky School for the Deaf, Centre College, and the Cemetery. Southern Railroad and other private owners hold several large parcels. When areas proposed for revitalization are included (see below under Comprehensive Plan), over three-fourths of the land in this section of the stream corridor has the potential for development or change in land use.

However, there are also many small parcels of developed and vacant land separating the public and semi-public properties that are being considered for the trail system. These will present challenges for coordinating owner wishes and easement acquisition. In some cases it is difficult to determine from the PVA maps whether property lines follow the center of the creek or include both banks. Further deed research would be necessary when easements are sought.

Towards the eastern end of Duncan Hill Road, Boughman Road, and KY 52 above the sewage treatment plant, there are many properties still in farming. This area also includes the quarries and related businesses, which present a potential barrier to a trail system extending east.

The eastern area is still rural in nature, but is proposed for future development (see below). New subdivisions are extending towards the creek in the vicinity of the Country Club.

Comprehensive Plan Policies:

The purpose of this section of the Assessment is to review those policies and proposals of the current (1988) Danville / Boyle County Comprehensive Plan Update that could directly or indirectly affect the future of Clarks Run, and to learn the extent to which these policies have been translated into action. As the Planning Commission intends to initiate the process to update the Comprehensive Plan during 1993, appropriate sections of the Clarks Run Corridor Plan could be incorporated in the new Comprehensive Plan.

Urban Service Area: The proposed urban area for Danville extends eastward to encompass a major portion of Clarks Run. Proposed land uses in this area are largely residential, except for potential industrial development on land currently owned by Caldwell Stone east of the intersection of Stanford Road and Kentucky 52. To the west, the current urban service area does not extend beyond the existing industrial area.

New Housing: Within the time frame of the new Plan Update there could be extensive growth along the creek in the Eastern Area, and Clarks Run could become a significant amenity for new housing. New neighborhood and regional parks could be located along the creek. Clarks Run could also be the spine of a bikeway system through the new area. There are no specific policies in the current Plan concerning housing development adjacent to the Creek, except for the general floodplain policies described under "Flood Management," which could allow substantial impacts to the creek's natural character.

Infill / Neighborhood Revitalization: The Plan goals and objectives strongly recommend compact growth and encourage infill development within the current urban area. The Plan notes that the majority of land suitable for residential use within the existing area of Danville is already developed. Yet there are substantial vacant and underutilized parcels along Clarks Run within the current urban area, which could serve infill needs. The plan also identifies several areas in the vicinity of the creek that are considered blighted and in need of revitalization. These include: housing along Duncan Hill Road east of Second Street and along South Third Street; and strip commercial on Stanford Road and on South Fourth Street.

Public use and enhancement of the creek could be a catalyst to revitalization, as is intended in Batewood Park. Additional parks along the creek could become focal points for residential neighborhoods and revitalized commercial strips. Trails and open space associated with the creek could create buffers between incompatible land uses and encourage private rehabilitation investment. The creek provides a very important opportunity to create a desirable attraction for this entire area of the city.

Community Quality: Policies about aesthetics in the Plan encourage maintaining and improving the City's visual image and preserving existing community character. Clarks Run has been largely ignored in the past, but could become a positive element in the City's visual image and character.

Economic Development: There are no specific policies concerning industrial impacts to the creek, although the Goals and Objectives state that industries should be located with

"proper environmental controls." The Plan notes that Danville has been very successful in attracting diversified, "clean" light industrial uses, and that continued development of the industrial park is a significant part of the City's economic strategy.

Transportation: Proposed transportation plans are significant to future plans for Clarks Run for two reasons. Depending upon design, road and bridge construction can either have extremely damaging impacts to creeks or can enhance public access to and enjoyment of them. Also, Clarks Run is currently used by vehicles as a connection between U.S. 150 and Duncan Hill Road, because there is no direct road connection. Driving in the creek bed is destructive to water quality and to fish and wildlife habitat.

The Comprehensive Plan proposes several new collector roads in the vicinity of the park. Terrell Drive is proposed to be extended east to KY 52. This would greatly increase traffic past Batewood Park, but would also encourage a wider service area of users for the park. Duncan Hill Road is proposed to be extended south to tie into Boughman Avenue near its intersection with U.S. 150. This should be a high priority improvement, and should be combined with barricades and removal of the paved stub to the edge of the creek to prevent driving through the creek bed, if possible. In the proposed eastern residential area there is one new collector proposed to cross Clarks Run. ** Road, which runs parallel to the creek, would be widened and extended to bridge the creek and connect to KY 52.

Another significant road improvement would be a new east-west crosstown connector proposed to follow the route of the creek. At the City's request, this new road has been placed on the Kentucky Transportation Cabinet's (KYTC) long-range (unscheduled) project list. As yet there has been only a general route identified by KYTC for purposes of initial cost estimates for the project list. There has been no route study or preliminary engineering work done by KYTC. A potential route would begin at KY 34 on the west, follow along the north side of the creek to cross the railroad, connect with 3rd and 4th Street near the creek, and turn northeast to tie in at the Main Street/KY 34 intersection. Due to topography south of the creek and the width of the railroad yard north of the creek, the vicinity of Clarks Run is thought to be the most feasible location for a new road to cross the railroad. It is a general policy of KYTC to avoid the costs, project delays, and environmental impacts associated with changing the alignment of a creek whenever possible.

Natural Resources: The Plan goals and objectives encourage preservation of natural resources, and call for minimizing or eliminating development impacts on the natural environment. The goals include: "Establish sound soil and water management practices so as to prevent confrontation between the natural environment and urban development." As Clarks Run is perhaps the most prominent remaining natural feature within the City, these policies appear to strongly favor its preservation.

3. *Community Revitalization and Growth Action Agenda*

- a. **Creek Protection Overlay District:** Create a creek corridor overlay district to strengthen protections for the creek.
 - ▶ Describe the creek corridor overlay district in the Comprehensive Plan, implement with an overlay zone through the Zoning Ordinance. The corridor could include the 100-year floodplain, adjacent steep banks and bluffs, and the riparian zone within these boundaries.
 - ▶ Evaluate planned land uses in the current Comprehensive Plan for compatibility with the Clarks Run Plan.
 - ▶ Consider creating flexible land use categories that will allow greater intensity/density of development on portions of property outside the floodplain and encourage open space preservation within the corridor. Coordinate this with evaluation of the floodplain management policies and regulations of the Comprehensive Plan and Zoning Ordinance.
- b. **Revitalization and Infill:** Make the creek the focal point and catalyst for neighborhood revitalization efforts and infill development.
 - ▶ Continue to emphasize improvements at Batewood Park as a way to present a positive image of the Batewood housing community.
 - ▶ Integrate parks and trails planning and design with revitalization initiatives and projects for residential, commercial and industrial areas.
 - ▶ Design creek-related improvements to increase open space, trails and park facilities and upgrade the appearance of revitalization areas.
 - ▶ Adopt policies that will protect the natural qualities of the creek where infill development occurs. Encourage infill development design to take advantage of the creek's attractive qualities.
- c. **Community Image:** Use creekside plantings and improvements to highlight the main entrances to Danville and contribute to the City's image. The Beautification Committee can assist with planting design and implementation.
 - ▶ Design and install plantings and manage existing vegetation at the Third and Fourth Street bridges in order to open up views of the creek and highlight its natural beauty.
- d. **Street Improvements:** Coordinate the location and design of street improvements with goals to preserve the creek, increase recreational access to it, and highlight its beauty.

- ▶ As the east-west connector is designed, consider locations that minimize channelization of the creek and provide visual and physical access to creekside parks. The connector could provide access to the proposed picnic area near the railroad overpass. Where the street will be close to the creek, consider maintaining the area between the street and creek as open space for a parallel trail system. This will also create an attractive street corridor.
 - ▶ Develop design standards for bridges that allow space beneath for trail connections.
- e. **Community Involvement:** Widen participation in the Clarks Run Committee and involve property owners in the next phases of planning and design.

The public meeting process for this planning effort was open to all members of the public. This assessment and conceptual plan for Clarks Run has provided information about the creek and a proposed direction for the future, which can be the basis for a public outreach effort. Considering the many property owners in the creek corridor, a direct approach is needed to involve them more specifically in the planning. Here are a few proposals for building community support:

- ▶ With the City's assistance, recruit the range of membership needed on the Clarks Run Committee to help coordinate the ongoing implementation of this Plan. Identify a Coordinator who will take ongoing responsibility for arranging meetings of the Committee and organizing volunteer involvement and partnerships with other agencies and organizations. As the project grows, explore options for establishing a citizen non-profit organization to support these partnership efforts. For instance, a non-profit could negotiate privately with landowners for trail easements. The Kentucky Water Watch Program can assist with establishment of a non-profit citizens organization.
- ▶ Continue the cooperation between the City, Clarks Run Committee, and local press to publicize the findings and recommendations of the Clarks Run Corridor Plan. Work with the Advocate-Messenger to run a series of articles over several months highlighting different creek issues, activities that are already underway, and future proposals. At the appropriate time, as the Plan develops, ask local businesses and civic groups to sponsor a special pull-out newspaper section on Clarks Run and the Plan proposals.
- ▶ Send out a newsletter to update Clarks Run Committee members, related civic groups, and property owners periodically on achievements and activities related to the creek.
- ▶ Involve property owners in trail planning and selection of locations, so that concerns about public access, privacy, and security are fully considered and addressed.

III. TRAILS AND PARKS PLAN

A. ISSUES

1. **Trail System:** The Danville Comprehensive Plan recommends development of a trail system along Clarks Run linking parks, schools and other attractions.
2. **Quality of life** and recreational opportunities are becoming increasingly important to industrial location decisions. The creek could become a recreational resource that enhances the industrial area on the western edge, and could complement further growth there.
3. **Neighborhood Park Needs:** Even with the development of Batewood Park, there is not enough neighborhood park space available on the south side of the creek. The creek floodplains and adjacent properties are an opportunity for meeting this need.
4. **Nature Park:** Danville has many attractive parks with passive and active facilities. However, there is no major park in the Danville area that highlights nature and the natural resources of the community. The creek is an opportunity for a nature park for passive recreational and educational purposes.
5. **Future Development:** Residential developments east of the current City boundaries will require new parks and trails. The floodplain of Clarks Run provides an opportunity to meet these needs and to create a special amenity for these neighborhoods.
6. **Environmental Education:** Clarks Run provides a unique opportunity to create an outdoor environmental education classroom through trail linkages to the four nearby schools.

B. BACKGROUND

This section of the Clarks Run Plan reviews those park and trail proposals described in the Comprehensive Plan and the Danville Parks Master Plan (1990) that refer to the creek.

Trail System: The 1988 Comprehensive Plan had one major proposal specific to Clarks Run, which this Plan is intended to implement. The Comprehensive Plan recommended development of a linear park corridor along the creek that would interconnect public parks with schools and other attractions. The Plan suggested that the trail begin at the Danville School Complex, follow the creek westward to a point east of the railroad, then tie in to Centre College on the north. Trail linkages were also proposed to Batewood Park and the Kentucky School for the Deaf. The city's bikeway system was intended to connect the high schools, Central Business District, and the Boyle County Sports Field as

well. On a countywide scale, the Plan recommended that the Danville linear park along Clarks Run should also connect to a bikeway to Perryville and the battlefield along U.S. 150, as part of an alternate loop of the Federal Bikecentennial Route that passes through Harrodsburg.

Recreation: "The Danville Parks Master Plan," Booker Associates, Inc., 1990, evaluated the current City park system and recommended future improvements. Batewood Park is the only existing public park in the Clarks Run corridor through Danville. No sites along Clarks Run were specifically identified as future parks in the Parks Master Plan. The important recreational opportunities provided by the creek need to be incorporated into community plans.

Except for the Hogsett Elementary School playground, there is no public park land south of Clarks Run. The Parks Master Plan designated Batewood as a **neighborhood park** serving all residential areas south of the creek, as well as areas on the creek's north side. The service area radius for neighborhood parks was set at 1 mile; other national and local recreation standards have favored a 1/2 mile radius for neighborhood parks, representing the distance younger children can easily bike or walk to a park. The creek itself is also a barrier to easy access to Batewood Park. Although the City will soon construct a pedestrian bridge from Batewood to the south side of the creek, it may be difficult to access the bridge from neighborhoods to the south due to topography and requirements of the Americans with Disabilities Act (ADA).

With future construction of the bypass and new commercial development on the south end of town, residential development could increase in this area. All of these factors point to the need for a neighborhood park to serve this area. There are several parcels along the creek's south side that could be investigated for their potential to serve neighborhood recreation needs.

Danville does not have a park with an extensive **natural environment** to give relief from urban surroundings. All of the existing city parks are fairly intensively developed with sports or passive park facilities. The Parks Master Plan also found that one of the city's greatest deficiencies in terms of recreation facilities was **local park trails**, and estimated a current need of 5 miles of trails. Clarks Run could fill this void.

The Parks Master Plan identified a deficiency in **regional park land**, and proposed that a new 120 acre park should be acquired and shared by Danville and Boyle County. The major emphasis of the park would be intensive recreation and sports facilities. There is also the need for a large regional park serving both the City and County that has a beautiful natural setting and remains largely a nature park. The section of Clarks Run in the eastern area has alternating bluffs and wide floodplains, which could provide both level land for playing fields and scenic, unspoiled natural areas.

Other Master Plan proposals that would affect the creek include development of Batewood Park with 7 softball / baseball fields and 4 football / soccer fields. This will draw more people to the park. Batewood Park is thus the logical focal point for developing trails and other facilities to increase access to and enjoyment of the creek.

Also, litter control during sports events will be very important to prevent trash from blowing into the creek.

Environmental Education: The discussion of every topic in Chapter II, from water quality to natural resources and historic resources, highlighted the importance of educating youth and adults about the interrelated values of Clarks Run and the changes in behavior that are necessary to protect the creek. The Kentucky Educational Reform Act requires schools to develop curricula relating to resources in the local community. The creation of a trails system linking four schools with the creek creates a wonderful opportunity for field trips on a variety of subjects.

C. TRAILS AND PARKS PLAN / ACTION AGENDA

The Trails and Parks Plan for Clarks Run is included in graphic form with this report. This section of the report describes the Plan and suggests steps needed to implement it.

1. Parks:

- a. **Batewood Park** should continue to be developed and enhanced as the "gateway" to Clarks Run. Batewood will be the destination of four trails from the north and south. It will also be a staging area for people wishing to begin the loop trail following the creek.
 - ▶ Development of proposed sports facilities will increase multi-neighborhood use of the park and will expose many new people to the creek. The creekside trails should be well marked and designed to attract Batewood users. Sports teams and neighborhood boosters should "adopt" the park to help keep it clean of trash, which could blow into the creek.
- b. **Additional Neighborhood Parks:** The City, Parks and Recreation, and the Planning Commission should examine whether additional parks are needed for neighborhoods on the south side of the creek. If there is a need, the Property Ownership Map for the Clarks Run corridor can be used by the City to investigate parcels that have the potential to meet those needs.
- c. **Railroad Site:** The City should take advantage of the opportunity to acquire the buffer zone near Frye's Lane from the railroad, if feasible. As noted in the "Water Quality" section, an environmental examination of the property would be wise before taking title. Access needs to be improved. Initial development could include a parking area, trail, and picnic facilities near the dam.
- d. **Future Parks:** Before the area east of the current City boundaries develops, the City should identify and acquire a large parcel including both floodplain and steep wooded bluffs as a regional nature park.

In addition, the City should consider adopting measures to reserve and acquire parkland along the creek that will meet the recreational demands of new subdivisions, in conjunction with floodplain preservation policies. These proposals should be considered by the Planning Commission in the Comprehensive Plan Update.

e. **Daycare Park:** The open floodplain area across Lebanon Road from the Daycare Center should be developed as a park, with picnic areas and trails. The park design and facilities should be geared to preschoolers and their families. The park could be used for Daycare Center outings and lunchtime picnics for area employees and their children.

2. Trails:

At this time the Plan is conceptual and general in terms of trail locations. Further involvement from property owners is needed before trail locations are specifically identified. There are two elements to the proposed trail system: (1) creek corridor trails, and (2) city-to-creek connecting trails.

The **creek corridor element of the trail system** would include trails adjacent to the creek and generally following the course of Clarks Run from the eastern to the western edge of the City. Trails are proposed for primarily the northern side of the creek, where their location is feasible and acceptable to property owners. The south side, with its steep slopes, would remain natural. However, opportunities for trails on the south bank may arise if infill development occurs on the property north of the fire station. The trail system should take advantage of safe crossing points, such as at the 2nd Street bridge or the proposed pedestrian bridge to Batewood Park, to create loops for hiking and bicycling.

The trails could have a different character and purpose along various sections of the creek. In fairly open areas, such as Batewood Park or the proposed picnic area near the railroad overpass, the trail could be wide and paved, for exercise cycling, jogging, and walking. In the industrial area, the trail could double as a par exercise course for lunchtime recreation by employees. In areas with dense vegetation and natural quality, there should be less intensive unpaved trails for hiking and nature study.

The **city-to-creek element of the trail system** would interconnect schools, residential neighborhoods, Downtown, and tourism/historic attractions with the creek corridor trail system and parks along the creek. The Plan takes advantage of the Town Spring Branch tributary to extend the qualities of the creek into the community and provide access points. There are several other tributaries that may also have this potential. The tributaries can also link with intercity and intercounty bike trail systems when developed.

Sidewalks can be enhanced to make them better for pedestrians through sidewalk improvements and the planting of trees to create a more shady, comfortable and attractive environment. The recent Tree Inventory mapped the locations of sidewalks and

presence of sufficient space for planting of street trees. The sidewalks selected as part of the trail system to the creek are those that have street trees now or are planned for tree plantings. The sidewalk system should be unified with completion of missing links and reconstruction of deteriorated pavement.

The next steps for trail system implementation include:

- a. **Connections to the Schools:** In concert with development of an environmental education program related to the creek, the City should select the best routes and develop design plans for trails from schools to the creek. The first priority should be to connect the schools to the creek, including:
 - ▶ Trail segment from the Middle School and Jenny Rogers Elementary through the Kentucky School for the Deaf to Batewood Park, following Town Spring Branch.
 - ▶ Trail segment from Hogsett Elementary School to Batewood Park. Determine whether it is possible to also connect with the pavilion and pedestrian bridge from the south.
- b. **Property owners** should be involved in the trail planning and selection of locations, so that concerns about public access, privacy and security are fully considered and addressed.
- c. **Deed Research:** As trail locations are selected, further deed research is needed to clarify property lines.
- d. **Trail Construction:** Opportunities should be explored for funding and labor assistance for trail construction. The City, School Board, community service programs of the court system, area businesses, civic groups, and youth organizations could be approached to donate volunteer labor and materials. Potential government grant sources include the Intermodal Surface Transportation and Efficiency Act (ISTEA), Land and Water Conservation Funds, and tree planting grants through the Small Business Administration (SBA).

3. *Environmental Education:*

- a. **Incorporate Clarks Run Resources in Educational Programs:** As the School Board and community work to prepare the community resource-based educational curricula recommended by the Kentucky Educational Reform Act (KERA), programs relating to the creek should be a high priority. Clarks Run provides a unique opportunity as an environmental education lab for the four schools located within walking distance.

Planned parks, trails, and the Batewood Park pavilion create opportunities for school field trips about topics such as Danville's history, aquatic and streambank ecosystems,

stormwater runoff and flood management, water quality, sewage treatment, illegal dumping and waste management. Educating Danville's youth about these issues could be the most important step to take to protect the long-term health and vitality of the creek. Clarks Run's accessibility from the schools should be a top priority.

- b. **Youth Projects:** The City, School Board and adult civic organizations should encourage Danville youth groups to take responsibility for projects relating to the creek.

Environmental activism is on the rise among young people across the U.S. Danville school and church youth groups, scouting organizations, and the like should be encouraged to spearhead volunteer projects relating to the creek and to the topics being taught in the environmental education program.

- ▶ Examples could include litter cleanup and education programs, trail construction, expanded Water Watch monitoring, development of a computer data base about the creek, inventorying of plant and animal species, and replanting of native vegetation for habitat and erosion control.
- ▶ A particular stretch of the creek could be designated as a "Children's Creek," with many projects undertaken and management decisions made by youth. Consider adding young people to the Danville Corridor Committee to help develop youth leadership.
- ▶ The implementation of the creek corridor plan itself can be part of the environmental education process. Document existing conditions before the work starts and show how work of the city and civic groups preserves, improves and enhances the natural qualities of the creek. Structure the master plan for the development of Clarks Run corridor so that the students in nearby schools can participate and learn from the development process.

- c. **Nature trails:** Develop self-guided interpretive nature trails along the creek.

Consider developing trails at two locations. One short trail could be developed at the picnic area near the Day Care Center, for parents with preschool children. The other should be near the Hogsett and Middle School connections to the creek, most likely at the Batewood pavilion, and should be geared towards adults and school-age youth. Youth groups should be involved in designing and implementing the trail.

APPENDIX

**PROPERTY OWNER LISTING
CLARKS RUN CORRIDOR, DANVILLE**

This list shows the names of the property owners of parcels adjacent to Clarks Run generally within the current city limits of Danville, including some areas shown on maps of the unincorporated area. The list was provided by the Boyle County PVA Office, located in the Courthouse, which also maintains records of the addresses of the property owners. The list is to be used with the assessment map for the creek corridor plan showing parcel numbers, or can also be used with the individual PVA maps.

The key to the map numbering system, using the example D14-7-24, is map number (D14), section number (7), and parcel number (24). On the PVA maps, which are aerial photographs, each map number is for a separate map; each section boundary is outlined in green pencil; and each parcel boundary is outlined in red pencil. The parcel numbers are unique only within sections. For instance, several section may have parcels numbered 1 through 50, all on the same map. Maps showing parcels in the unincorporated area only have map and parcel numbers, and do not have sections.

The key to the parcel ownership symbols is:

- | | | | |
|---|-------------------|---|--------------------|
| ★ | Government agency | ■ | Semi-public |
| ◆ | College | □ | Utility / Railroad |

MAP D14:

Map/Section D14-7

Parcels:

- 1 L.W. Wilson
- 17 Frank J. and Jacqueline J. Kahanic
- 17,18,19,20 Lojuanna Southwood
- 23 Boyle Industrial Storage
- 24 Boyle Industrial Storage

Map/Section D14-10

Parcels:

- 16 Triangles Mart
- 18 Boyle Industrial Storage
- 19,20 Charles W. and Violet Foley and Ralph L. and Lois J. Oliver
- 21 Boyle Industrial Storage (Foley and Oliver)
- 22 Michael Simpson
- 23 Steve Ford
- 28 James Huston
- 36 Centre College ◆
- 40 First Security Bank & Trust for Ann Gregory and Jayne Thompson

CLARKS RUN CORRIDOR PROPERTY OWNER LIST, Continued

Map/Section D14-12

Parcels:

- 1 Southern Railway ■
- 2,23 George H. Martin
- 24,25,26 Cecil Shannon

Map/Section D14-15

Parcels:

- 1,2 Parson Beef

MAP D15

Map/Section D15-1

Parcels:

- 1,2 Parsons Beef
- 3,4 Eugene Jarmon
- 5 Rita Jarmon and Albert Hawkins
- 6 Paul Turner
- 8 Rice Leonard Hrs.
- 9 Marvin Phillips
- 10 Clifford Ingham
- 11 Judson Singleton
- 13 Richard Simpson
- 14 Judson and Helen R. Singleton
- 15 Barry Raglund
- 35 Dale Hill (Cemetery) ■
- 42 Larry Taylor
- 43 Agnes Riffe
- 44 Ray Riffe
- 45 Eugene Jarmon
- 46 June Kenley
- 47 Samuel, Marge, Richard & Emily Meaux
- 48 Joe Robert Houston
- 49 Billy Joe Ernst
- 50 Robinson Flem Estate c/o Georgia K. Fields
- 51,52,53 Ronald Emerson
- 54 Frances Houston
- 55 Joe Houston
- 56 City of Danville ★
- 59 Marvin Phillips

CLARKS RUN CORRIDOR PROPERTY OWNER LIST, Continued

MAP 42

Parcels:

- 8 Maebelle Grubs
- 10 Thom McAn Shoe Inc.
- 11 Jackson Furniture of Danville
- 12 American Greetings / City of Danville ★
- 15 Kentucky Utilities ■
- 16 Service America Corporation
- 18 Fred Cain Farm Equipment
- 19 Boyle County Industrial Fund ★
- 20 CNO&TP Railway ■
- 21 Matthews Conveyor
- 22 Commonwealth of Kentucky ★
- 28 Jerome German and David Williams
- 35 Thom McAn Shoe Inc.
- 37 Broadacres Development Co.
- 57 Jannock Steel Fabricating Inc.
- 62 Roadway Express

MAP 46

Parcels:

- 35 Buell Bragg Post #3634
- 37 Craig McCormack
- 40 Ad-Mart Attraction, Inc.
- 47 June Kenley
- 48 City of Danville ★
- 49,50 Ray Riffe
- 51 Jesse E. Frye
- 72 Cursinger Sports Center

MAP 47

Parcels:

- 7 Caldwell Stone
- 16 Ad-Mart
- 17 Caldwell Stone
- 18 Boyle Block Co. Inc.
- 20 Caldwell Stone
- 21 James Turner
- 48 Charles Yankee
- 84 Hamilton South
- 126 City of Danville (Sewage Treatment Plant) ★