

ATTACHMENT A

**A RESOLUTION ACCEPTING THE STAFF REPORT ON THE REQUEST
FROM THE FRIENDS OF BOLIN CREEK
Resolution No. 69/2003-04**

WHEREAS, the Carrboro Board of Aldermen seeks to ensure that its existing and proposed policies and plans are appropriate;

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accepts the staff report that has been prepared in response to the request from the Friends of Bolin Creek.

BE IT FURTHER RESOLVED by the Carrboro Board of Aldermen that the Aldermen directs staff to (if desired)

1. Prepare a proposal to sponsor a charrette, the goal of which would be to compile a comprehensive resource guide to Bolin Creek, as described in the November 7, 2003 staff report.

This is the 11th day of November in the year 2003.



TOWN OF CARRBORO

NORTH CAROLINA

MEMORANDUM

TO: Steven Stewart, Town Manager
Mayor and Board of Aldermen

FROM: Patricia J. McGuire, Planning Administrator

DATE: November 6, 2003

SUBJECT: Bolin Creek Master Plan – Response to Friends of Bolin Creek Proposal

In mid-January, members of the Friends of Bolin Creek (FOBC), a non-profit organization (**Attachment 1**) dedicated to preserving the Bolin Creek corridor, made a presentation to the Board of Aldermen. Presentations were made in the weeks and months that followed to elected officials and advisory boards in Orange County. The FOBC had provided comments to the Board of Aldermen in September 2002 at the public hearing on annexation of the Horace Williams and Winmore tracts and noted their pending request for support for the proposed Bolin Creek corridor master plan. The group offered their proposal to the Chapel Hill Town Council in November 2002. With the exception of the September 2002 annexation public hearing, the purpose of these presentations was to request support and assistance towards the preparation of the master plan.

Using a model developed in the spring of 1989 and followed in the development of the New Hope Corridor Open Space Master Plan, the FOBC proposed that the governing bodies of Chapel Hill, Orange County, and Carrboro appoint an advisory committee. Using funds provided by the local governments, the advisory committee is envisioned to hire a consultant to conduct a biological examination of the creek corridor that would be used to develop recommendations to guide its protection and to coordinate the planning processes by the jurisdictions and key stakeholders (e.g. Orange Water and Sewer Authority, University of North Carolina at Chapel Hill, Orange County). The presentation summary (**Attachment 2**) notes the four principal reasons that have inspired the FOBC to make this proposal. These reasons are:

1. With burgeoning growth in southern Orange County, this is critical time to carefully manage urban growth in the Bolin Creek watershed.
2. There is a need to establish connectivity of natural areas, existing and planned parks, and greenways.
3. There is an opportunity to preserve the last intact stretches of native forest habitat remaining in southern Orange County.

4. FOBC desires to leave a natural legacy for future generations.

This report seeks to build on an October 28th report on Greenway Planning to examine the following subjects in relation to the FOBC proposal: 1) Description of Bolin Creek watershed, 2) Elements of a Master Plan, and 3) Coordination of Planning and Implementation for Bolin Creek Corridor.

Description of Bolin Creek Watershed in Carrboro's jurisdiction

The Bolin Creek basin includes approximately 7,620 acres of land, just over 11 square miles, approximately half of which is located in Carrboro's planning jurisdiction. A small portion, approximately 120 acres, is located in Orange County's jurisdiction. The remainder is located in the jurisdiction of the Town of Chapel Hill.

At the present time, approximately 50 percent of the Town's planning jurisdiction is located within the Bolin Creek watershed. This area is bounded by Main Street and Weaver Street on the south and W. Main Street, Hillsborough Street, and Union Grove Church Road on the west. Eubanks Road approximates a northern boundary and, roughly, the Southern Railway right-of-way forms the eastern boundary of the basin.

With the exception of the small piece of the basin located in the Rural Buffer, the northern extent of the watershed forms the western boundary of the public water and sewer supply network and those portions of this area designated "Transition Areas" in the 1987 Joint Planning Land Use Plan fall under the Town's planning authority by virtue of the Joint Planning Agreement adopted that same year. The Town of Chapel Hill exercises similar authority over northern portions of the Booker Creek watershed. The intent of the joint planning approach was to grant land use planning and permitting authority of future urban areas to the municipalities, as would occur if the Town's had expanded their extra-territorial boundaries, while retaining a role for the citizens, via their elected representatives, who resided outside the Towns' city limits.

The extent to which the creek basin is developed is evident in the attached illustration (**Attachment 3**). While a detailed analysis of the change in population of the basin has not been conducted, recent trends in population growth may be noted. Since 1980, Orange County's population, independent of the towns, has grown at about 3.4 percent per year, slightly higher than the Raleigh-Durham-Chapel Hill Metropolitan Statistical Area's growth of 2.9 percent per year. Chapel Hill grew at about 1.5 percent annually, compared to 4.1 percent for Carrboro in the 1980's and 4.5 percent in the 1990's. In 1987, Carrboro's planning jurisdiction expanded to encompass a larger portion of the Bolin Creek basin. Prior to that time, development had occurred primarily within the Town limits or within the extra-territorial jurisdiction to the northeast (between NC Highway 54 bypass and Bolin Creek) or southwest of the Town's core (along Smith Level Road and on the south/west sides of the bypass). A summary of development in Carrboro's jurisdiction in the years following the adoption of the Joint Planning

Agreement is provided below. Those projects located in the Bolin Creek basin are shaded.

Year Approved	Development	Number of Units	Creek Basin
1987	Richardson	7	Morgan
1988	Morgan Glen	10	Morgan/Ulake
	Quarterpath Trace	80	Bolin
	Byers	5	Bolin
	Berryhill	105	Morgan
1990	Meadow Run	13	Bolin
	Camden	24	Bolin
1991	Teal Place	5	Morgan
	Wexford	95	Bolin
1992	Winsome Lane	26	Morgan/Ulake
	Cates Farm	73	Bolin
	Ridgehaven	45	Morgan
	Highland Meadows	20	Bolin
1993	Arcadia	33	Bolin
1994	Williams Woods	26	Bolin
	Bel Arbor	30	Morgan
	Brewer Lane	16	Morgan
	Lake Hogan Farms	438	Bolin
	Tupelo Ridge	6	Bolin/Morgan
1995	Sunset Creek	69	Bolin
	Autumn Woods	222	Tom's/Morgan
1996	Roberson Place	122	Morgan
	Carolina Spring	124	Morgan
	Tupelo Ridge II	12	Bolin/Morgan
	Highlands North	18	Bolin
	University Commons	72	Morgan
1997	UCC Living Center	40	Morgan
	The Cedars	49	Bolin
	Kent Woodlands	26	Morgan
	Berryhill 3/4	59	Morgan
2000	Ray Road	10	Morgan/Ulake
	Mulberry Street	12	Bolin
	Karen Woods	10	Bolin
2001	Rose's Walk at Morgan Ridge	64	Morgan
2002	McFall	3	Morgan/Ulake
	Cole's Crossing	10	Morgan/Ulake
	Horne Hollow	9	Bolin
	Tramore West	6	Bolin
	Twin Magnolias	23	Morgan
2003	Pacifica	46	Bolin
	Winmore	232	Bolin

Since 1987, 2,295 dwelling units have been approved in Carrboro's jurisdiction, 1,019 in the Morgan Creek basin and 1,276 in the Bolin Creek basin.

Elements of a Master Plan

A master plan may be used for a specific improvement, such as recreation and parks and greenways, a defined area, such as the New Hope Creek Corridor, or a combination of the two. Such documents typically include the following elements:

- 1) Description of the master plan development process and participants.
- 2) Inventory and assessment of existing conditions.
- 3) Purpose and goals of proposed "improvement," (e.g. recreation, transportation, wildlife).
- 4) Range of desired improvements (e.g. trail width, surface, access points).
- 5) Criteria/standards for improvements (e.g. distance to steep slopes, waterway).
- 6) Description of improvements (e.g. segment location, ownership/jurisdiction, description of significance, use and protection strategies).
- 7) Implementation steps (e.g. hierarchy of acquisition options, forms of compensation).
- 8) Accompanying maps of existing and proposed conditions

A single master plan has not yet been prepared for the Bolin Creek watershed, per se. Yet, it is clear that many elements of a master plan have been developed and have guided acquisition and development decisions along the corridor in both Chapel Hill and Carrboro. The implicit vision in these efforts is that the major stream corridors in southern Orange County should be managed to support a "greenway" in the broadest sense – a multi-function network of connections of and between places of importance.

Much of the Bolin Creek corridor is already serving this function. Explicit recognition, beyond that provided in Chapel Hill and Carrboro's planning documents or in the master plan in development for the Chapel Hill Township Park north of Carrboro will also be valuable to properly use and manage the corridor. A more detailed summary of the existing framework of "master plan elements" is provided (**Attachment 4**). Please note that this attachment is very similar to one prepared in conjunction with a Greenway Planning update presented on October 28, but does provide some additional details. The following activities are noted as they are characteristic of some of the master plan elements listed above.

Date	Activity	Master Plan Element (s)
1980	<i>Carrboro Neighborhood Parks and Greenway System Plan.</i> The plan is concise and direct in defining the purpose, location, size, service area, features, and maintenance needs for the noted parks and greenways. This document spells out two purposes for greenways: first, <i>preserving natural ecological processes</i> and second, providing low cost recreation areas, principally because these could be located where steep slopes and/or flooding would preclude other activities	Purpose, existing conditions, description of improvements, implementation

Date	Activity	Master Plan Element (s)
1988	<i>Inventory of Natural Areas and Wildlife Habitats of Orange County, North Carolina.</i> The inventory was prepared in response to development trends that threatened significant natural resources as a tool to identify and protect them. Proposes Bolin Creek greenway. Recommends that 150-acre corridor between Estes Drive and Homestead Road be assigned status as a “natural area” within the greenway system.	Inventory and assessment of existing conditions,
1987	Buffer requirements for streams located outside of the University Lake watershed enacted.	Criteria/standards for improvements
1992	<i>Carrboro Master Recreation and Parks Plan.</i>	Description of improvements, in part, implementation steps.
1995	<i>Carrboro Land Use Ordinance</i> – amendments to require 40 percent open space in residential development (majority of undeveloped portions of Bolin Creek basin are zoned for residential development) and to provide recreation and open space “credits” for developed trails.	Criteria/standards for improvements, description of improvements
1998	<i>Chapel Hill Greenways: A Comprehensive Master Plan.</i> Plan update will begin in December 2003	All
1999	<i>NSA Plan.</i> (Adopted by Orange County, Chapel Hill and Carrboro) and Land Use Ordinance amendments	Existing conditions, purpose, location, criteria/standards for development, implementation steps.
2000-2003	<i>Chapel Hill Comprehensive Plan Development Management Ordinance</i> – expanded resource protection	Criteria/standards for development

Protection of the Bolin Creek stream corridor and its associated valuable ecological processes appears to first have been identified as aspect of a greenway planning in Carrboro in 1980. While the corridor, recreation, and transportation functions of a greenway are often emphasized, the inclusion of the conservation function in early planning for Bolin Creek is consistent with greenway planning.

Coordination of planning and implementation within the Bolin Creek Corridor

In addition to the adopted plans and regulations that are already in place and affect the Bolin Creek corridor, there are a number of planning and development initiatives underway or under consideration. These include:

- Carolina North – advisory committees from the University, Town of Chapel Hill, and Town of Carrboro (all cross-pollinating with one another, to some degree)
- Chapel Hill Township Park and Educational Campus
- Adams Tract Preservation Committee and acquisition efforts
- Hillsborough Road Park Planning
- Chapel Hill Greenways Plan Update- Tanbark Branch Trail
- Carrboro Master Recreation and Parks Plan Update

Staff of the Orange County Environment and Resource Conservation Department prepared a report “The Adams Tract and Bolin Creek Corridor: Towards a Possible Master Plan” earlier this year. The report recognizes the extensive planning that has occurred to date in

the Bolin Creek corridor. In light of those efforts and the large number of advisory and independent groups now in existence who make recommendations and decisions about the creek, the report describes an alternative approach to the FOBC proposal for a master plan. The alternative approach would involve the creation of a master plan committee to be made up of representatives from existing groups (e.g. advisory committees, Triangle Land Conservancy, FOBC), evaluation by Town and County staff of the availability of existing resources that could be committed in support of the project, and the development of a project mission and timeline.

Carrboro staff echo the comments offered by the County that recognize the concern and commitment evidenced by the FOBC efforts. A modified version of Orange County's alternative is offered for consideration, especially in view of the planning activities and committees currently underway. Using a charrette format, staff of all associated agencies and representatives of other interested parties would present and review all pertinent documents and projects, and identify consistencies and conflicts. The goal of the charrette would be to create an indexed, cumulative "master plan" that cross-references all the separate components and identifies any need for clarification. The compiled document would then be provided to elected officials and formal advisory boards, perhaps at an Assembly of Governments meeting for their adoption or acceptance as a comprehensive resource guide to the Bolin Creek corridor.

Attachments

What is Friends of Bolin Creek?

The Friends of Bolin Creek is a non-profit organization dedicated to preserving the Bolin Creek corridor. Working with the University of North Carolina, the towns of Chapel Hill and Carrboro, and with Orange County, we would like to establish a perpetual nature park and preserve along the Bolin Creek corridor. We envision multiple uses, compatible with our conservation goals including hiking, biking, riding and nature study.

How can you help?

You can help the Friends of Bolin Creek preserve this precious forest habitat by:

- becoming a 'Friend' of Bolin Creek*
- participating in activities such as creek walks or fundraisers
- volunteering time for fundraising, creek watching, newsletter design, and more
- making a tax-deductible donation - all donations, large or small, are welcomed

Membership dues are \$25 for adults and \$10 for students

To become a member, volunteer your time, and/or make a donation, please send your contact information (including email address) along with a check made out to:

Friends of Bolin Creek (FoBC)
P.O. Box 234
Carrboro, NC 27510

For more information, visit our website at
www.bolincreek.org

or contact Dave Otto at 919-966-6226



Friends of Bolin Creek
P.O. Box 234
Carrboro, NC 27510

Friends of Bolin Creek

www.bolincreek.org



Preserving and
Protecting the Bolin
Creek Watershed

ATTACHMENT 1

What are we trying to protect?

- With burgeoning growth in southern Orange County, it is now essential to carefully manage urban growth in the Bolin Creek Watershed. If the watershed is not preserved over the next few years, the opportunity will be lost forever.
- There is an important need to connect natural areas, existing and planned park, schools and greenways. It is our dream to connect the Chapel Hill Greenway to Wilson and Umstead Parks and the planned Carrboro Greenway.
- We want to preserve the last intact stretches of native forest habitat remaining in southern Orange County. Much of the forest areas in the Horace Williams Tract and the Northern Transition Zone are botanically sensitive and ecologically valuable. The Adams Tract, about 30 acres between Estes Drive and Watters Road in Carrboro, is not only beautiful, but also an important gateway to the park and preserve that we want to establish.

- We want to leave a natural legacy that our children, our grandchildren and future generations can enjoy. Christopher Alexander and his colleagues have expressed it well in *A Pattern Language*: Towns, Buildings, Construction: "When the countryside is far away, the city becomes a prison" and "Every city inhabitant should be within a 10 minute walk of a natural area." We have a critical opportunity to preserve the natural corridor along Bolin Creek before it is engulfed by the rising tide of development in this area.

Where is Bolin Creek?



Bolin Creek starts as a tiny spring Northwest of Old Route 86 in Orange County. It winds its way through Carrboro and the University of North Carolina's Horace Williams Tract and then proceeds eastward into the heart of Chapel Hill. It merges with Booker Creek east of the 15-501 bypass to form Little Creek, and eventually flows into Jordan Lake.

How Can we preserve the Bolin Creek Corridor?

We can preserve the corridor by:

- **Direct purchase of property**
- **Conservation easements** - a voluntary legal agreement between land owner and conservation agency that permanently limits land use.
- **Donations of land** - outright or by will
- **Grants** that guarantee the rights to keep the land in its natural state, in perpetuity.
- **Mutual covenant** - an agreement between a group of landowners placing restrictions on the use of their land. Does not involve land trust or government agency.



The Bolin Creek Watershed is inhabited by a wide variety of birds, mammals, reptiles, trees and wildflowers including:

Beaver
Grey Fox
N. Flying Squirrel
Chorus Frog
Eastern Fence Lizard
Great Horned Owl
Pileated Woodpecker
Red-shouldered Hawk
Yellow-throated Warbler
Black Walnut Tree
Carolina Hemlock Tree
Black Rattlesnake Root
Showy Orchid
Pennywort
Moth Mullein
Nodding Trillium
Black Trumpets

These beautiful inhabitants are threatened by watershed development.

CREATING AN OPEN SPACE MASTER PLAN FOR THE BOLIN CREEK CORRIDOR Presentation to the Carrboro Board of Aldermen (January 14, 2003)

Summary of presentation to be made by Dave Otto, Chairman of the Friends of Bolin Creek; Doug Nicholas, Liaison from Triangle Land Conservancy; and Julie McClintock, Public Relations Chairman for FoBC.

We want to make you aware that the Friends of Bolin Creek have initiated a campaign to preserve this special corridor which runs from the northern transition area of Carrboro through the Horace Williams Tract and then eastward through Carrboro and Chapel Hill to merge with Booker Creek east of the 15-501 bypass. The Bolin Creek Corridor includes one of the last stretches of significant native forest habitat left in southern Orange County. At several well-attended public meetings earlier this year, we were encouraged by the enthusiasm of many citizens who also desire to help us save this creek and the lands around it.

We believe that initiating a **Bolin Creek Corridor Open Space Master Plan** is the next appropriate step in our community's effort to save and preserve Bolin Creek. We envision a process similar to that used in developing the New Hope Creek Corridor Master Plan more than ten years ago. In that case, the governing boards of Chapel Hill, Orange County, Durham and Durham County passed a common resolution recognizing the value of the New Hope Creek Corridor. The governing boards appointed an Advisory Committee representing each of the jurisdictions that worked with planning staffs and a consultant to prepare an Open Space Master Plan.

On January 14 we will be presenting an overview of our concept and asking Carrboro to join with Chapel Hill and Orange County to begin a similar process for the study of the Bolin Creek Corridor. We propose that the three governing bodies appoint an Advisory Committee representing each of the jurisdictions and other key stakeholders along the following lines. The Advisory Committee should be composed of 15 members, four each appointed by Chapel Hill, Carrboro and Orange County, and one each appointed by key stakeholders including UNC-Chapel Hill (Horace Williams Committee), Duke University (Duke Forest interest in the northern reaches of the corridor) and OWASA. We respectfully suggest that the governing bodies appoint representatives along these lines: an elected member of the board or other board representative; a member of a government environmental advisory committee; a member of the Friends of Bolin Creek Steering Committee residing in that jurisdiction; and a landowner in proximity to Bolin Creek residing in that jurisdiction.

The Advisory Committee will be charged with hiring a consultant and working with that consultant and planning staffs to conduct a thorough biological examination of this valuable regional resource, leading to recommendations to guide its protection. A significant aspect of this study will be to integrate current planning processes initiated by the three jurisdictions and other key stakeholders.

Additionally, we ask Carrboro to assist in funding or in identifying funding sources to hire a consultant to develop the Open Space Corridor Master Plan described above. (Possible funding sources outside operating budgets include Orange County Open Space bond funds, the

NC Clean Water Management Trust Fund and the US Land & Water Conservation Fund) We have obtained rough consulting estimates ranging from \$30,000-\$50,000. We made a similar request to the Chapel Hill Town Council on November of last year and will also be asking the Orange County Commissioners to assist in this project. We are keenly aware of the success of the New Hope Master Plan which has served as a blueprint in identifying critical parcels for acquisition and protection over the past decade and believe that this approach will yield a similarly useful blueprint to guide the acquisition and preservation of the Bolin Creek Corridor.

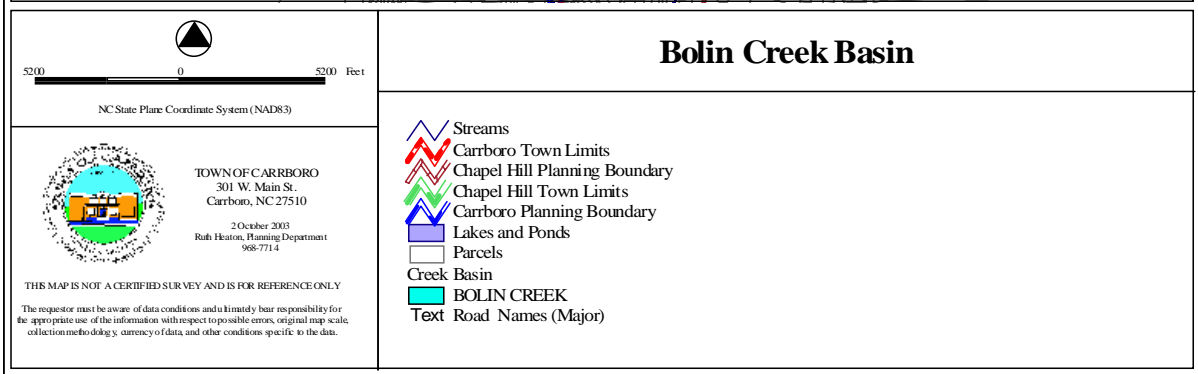
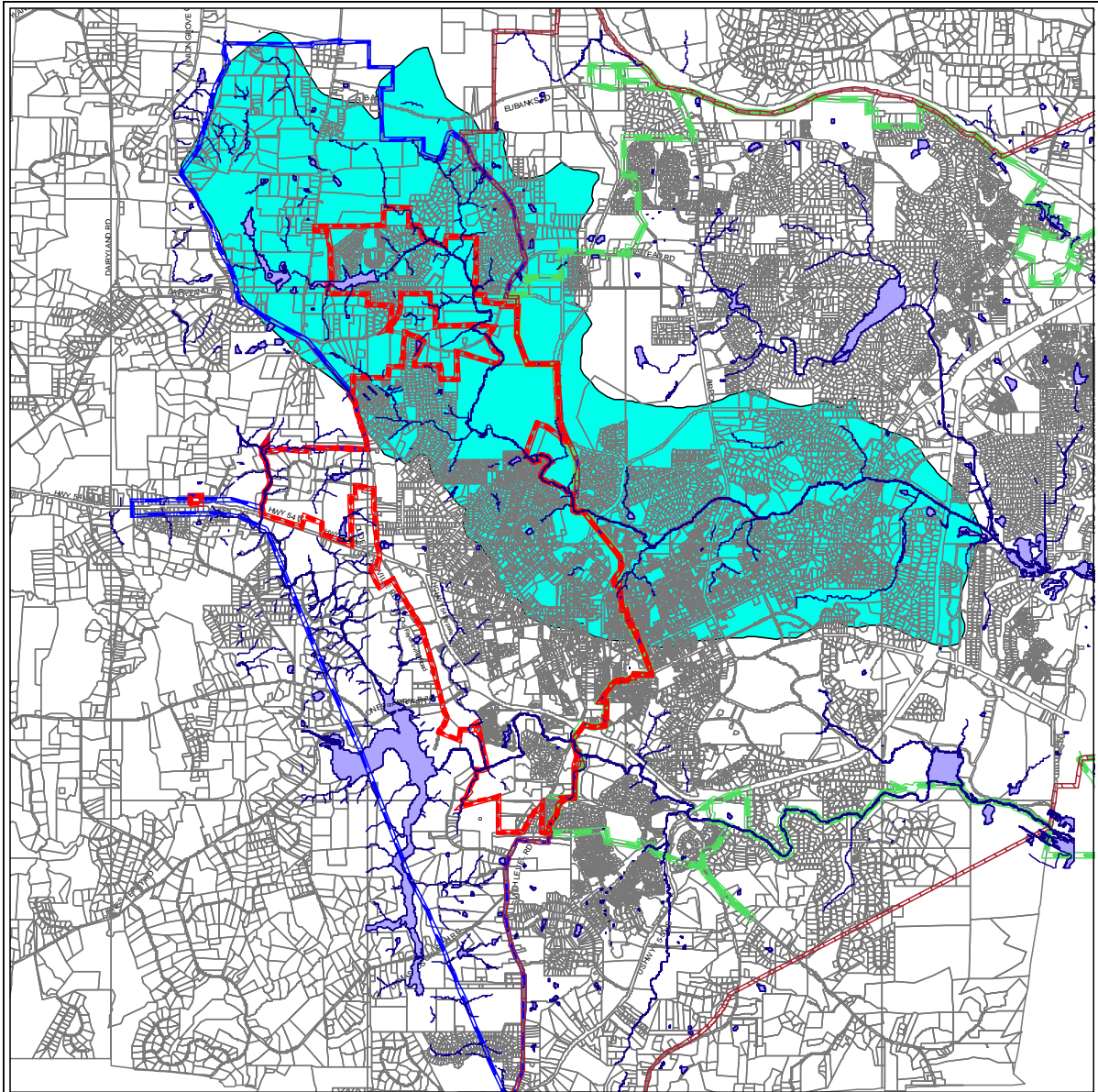
Why should we preserve the Bolin Creek Corridor? We believe the following four reasons are very important:

- (1) With burgeoning growth in southern Orange County, this is a **critical period where it is essential to carefully manage urban growth in the Bolin Creek Watershed**. If the watershed is not preserved over the next few years, the opportunity will be lost forever. Although the Chapel Hill sections of the watershed are largely built out, construction upstream in Carrboro and the Northern Transition Zone could have enormous impact on the entire watershed, exacerbating the chronic flood problems in the University Mall/Camelot Apartments area.
- (2) There is an important need to **establish connectivity of natural areas, existing and planned parks and greenways**. Chapel Hill is far ahead of Carrboro in implementing a greenway/bikeway stretching along Bolin Creek from the Community Center on Estes Drive to Airport Road, but it is a long way from there to the headwaters! There is a hauntingly beautiful section of the creek below the bluff at Village West that few have seen or appreciated. It is our dream to continue the Chapel Hill Greenway from Airport Road to Umstead Park and Estes Drive, to have the state DOT restore the streambed under Estes Drive Extension and build a bridge over the creek wide enough to allow wildlife and greenway corridors (as part of the improvements that will be made to Estes Drive to accommodate traffic to the new Horace Williams Campus), connect to Wilson Park and the planned Carrboro Greenway, run connectors to Seawell Elementary, Smith Middle and Chapel Hill High Schools, a possible connector along the tributary which arises on the Greene Tract, and another segment continuing through Winmore up Jones Creek to the planned County Park.
- (3) We want to **preserve the last intact stretches of native forest habitat remaining in southern Orange County**. Two studies by Triangle Land Conservancy within the last five years identified much of the forest areas in the Horace Williams Tract and the Northern Transition Zone as botanically sensitive and ecologically valuable (*A Landscape With Wildlife for Orange County* and *A Landscape With Wildlife for Orange County, Part II* by Haven Wiley, Steve Hall and Livy Ludington). Another natural treasure is the Adams Tract, about 30 acres between Estes Drive and Watters Road in Carrboro. This jewel is an important gateway and access to the park and preserve that we want to establish. Carrboro has already obtaining about 200K from the NC Clean Water Management Trust Fund, has requested 750K bond funds from Orange County, and is exploring a variety of other funding sources to purchase this tract. We view

acquisition of the Adams Tract as the first critical step in realizing the proposed master plan!

- (4) We want to leave a **natural legacy** that our children, our grandchildren and future generations can enjoy. Christopher Alexander and his colleagues have expressed it well in *A Pattern Language: Towns, Buildings, Construction*: “When the countryside is far away, the city becomes a prison” and “Every city inhabitant should be within a 10 minute walk of a natural area.” We have a critical opportunity to preserve the natural corridor along Bolin Creek before it is engulfed by the rising tide of development in this area. It is essential to act now while considerable open space still exists!

We will be coming to you on Tuesday evening to request your support—political, physical, monetary and spiritual. Realization of this dream will require the joint efforts and support of many people and many jurisdictions—Chapel Hill, Carrboro, Orange County, the State of North Carolina, and perhaps the federal government. It is a dream that has the enthusiastic support of a large cross-section of the local population—hikers, joggers, dog-walkers, bikers and nature lovers. We respectfully invite you to join and support us in our efforts to create a **Bolin Creek Corridor Open Space Master Plan!**



A chronological overview of policy and regulatory actions taken by the Town of Carrboro related to Bolin Creek is presented for review.

Date	Action
1960s	Bolin Creek sewer line was extended from Estes Drive Extension to Chapel Hill High School. Line was owned and operated by the Town of Carrboro until OWASA began operations in 1977
1970	<i>Land Use Study. Brief description of Bolin Creek basin.</i> Emphasis on Morgan Creek due to water and sewer facilities located in that watershed.
1970	<i>Community Facilities and Land Development Plan.</i> "Stream valleys have great value as protection areas between residential areas... Carrboro should adopt a policy of stream valley open space preservation and acquisition." The report did not include any proposals for corridor preservation along Bolin Creek.
1980	<i>Neighborhood Parks and Greenways System Plan (NPGSP).</i> Greenway along Bolin Creek is proposed from Estes Drive to Seawell School Road, with acquisition options provided (in association with development applications) in a corresponding land use ordinance provision. Two purposes for developing a greenway are noted: 1) preserving natural ecological processes, and 2) providing low cost recreation areas. Due to community concerns noted in a public hearing on May 10, 1983, the Board of Aldermen removed the Greenways Plan from the NPGSP.
1980-1989	Bolin Forest, Phases I-IV approved for development along Bolin Creek. Stream buffers established and public pedestrian easements dedicated along creek in association with Phases III and IV.
1983-1987	Fox Meadow subdivision approved for development along Bolin Creek. Dedication of public open space/greenway along Bolin Creek to Orange County (on-site wells and septic).
1984	Spring Valley approved for development along Bolin Creek. Approximately 1.3 acres of private open space designated along Bolin Creek frontage.
1985	Cobblestone subdivision approved for development along tributary of Bolin Creek. Private open space established along tributary.
1985	Wilson Park I, II condominiums approved along tributary of Bolin Creek. Fair Oaks, Sudbury and Waverly Forest also approved along tributaries of Bolin Creeks.
1987	Highlands I-IV approved for development along tributary of Bolin Creek
1987	Buffer requirements for streams located outside of the University Lake watershed enacted.
1987	Joint Planning Area Land Use Plan establishes Town planning jurisdictions and Rural Buffer. Bolin Creek basin defines Carrboro's additional planning jurisdiction not already included in extra-territorial jurisdiction established in 1950s.
1985-1991	Sewer line extended north to serve the Highlands and Camden subdivisions.
1988	Quarterpath Trace subdivision approved along a tributary of Bolin Creek.
1988	<i>Inventory of the Natural Areas and Wildlife Habitats of Orange County, North Carolina.</i> Narrow, upland stream valley, along the Bolin Creek stream corridor, from Estes Drive to Homestead Road, is included in the inventory as it represents on the "few remaining wooded stream corridors in the vicinity of Chapel Hill and Carrboro." Recommendations for management or protections

Date	Action
	state: "This site might be best protected by assigning it a status of a "natural area" within the greenway system." Inclusion of approximately 150 acres in this category is noted, as the minimum needed to protect the area's natural and aesthetic qualities.
1989	<i>Year 2000 Task Force Report.</i> "The town should encourage and contribute to the development of greenways or parklands along streams and easements dedicated to public use. These areas should be preserved as much as possible in their natural state."
1990	Meadow Run subdivision approved along a tributary of Bolin Creek (on-site wells and septic).
1990s	Water quality monitoring of Bolin Creek initiated in a joint effort with the Town of Chapel Hill.
1991	Wexford subdivision approved along a tributary of Bolin Creek.
1992	Cates Farm subdivision approved along a tributary of Bolin Creek. Open space/public access dedicated to the Town of Carrboro.
1993	Arcadia subdivision approved along a tributary of Bolin Creek.
1994	Lake Hogan Farms subdivision approved along Bolin Creek. Extensive stream buffers and greenways established for public dedication along creek and lake. William's Woods at Cates Farm and Tupelo Ridge approved along tributaries of Bolin Creek.
1994	<i>Recreation and Parks Comprehensive Master Plan.</i> Proposal for the "Bolin Creek Greenway," a seven-mile, off-street trail to extend from Estes Drive, up Bolin Creek around Hogan Lake and connecting with a proposed park on Union Grove Church Road. Acquisition of property along greenway corridors was identified as a priority for development throughout the 20-year planning horizon of the document.
1995	Sewer line extension along Bolin Creek to serve the Lake Hogan Farms subdivision.
1995	Sunset Creek subdivision approved along a tributary of Bolin Creek.
1996	Tupelo Ridge II and Highlands North subdivisions approved along tributaries of Bolin Creek (on-site wells and septic)
1997	The Cedars at Bolin Forest subdivision approved along a tributary of Bolin Forest.
1997	<i>A Landscape with Wildlife for Orange County.</i> Recommends preservation of prime forest areas and wildlife corridor connections between these areas. 500-foot buffers are recommended around prime forest areas located in the northwest corner of Carrboro's planning jurisdiction.
1999	<i>Facilitated Small Area Plan for Carrboro's Northern Study Area.</i> Bolin Creek floodplain is included among the northern study area's unique, natural areas. Aside from descriptive information related to park sites/greenways that are planned along the creek, the plan includes references to Bolin Creek within a number of its goals, including: identifying strategies for acquisition/dedication to protect the creek, and including as a long-term goal, the connection of Homestead Road at Lake Hogan Farms to the Bolin Creek greenway via drainage channel or stream bed. Land Use Ordinance amendments adopted to implement the plan specify preservation of certain natural areas, including floodways, floodplains and steep slopes. New stream buffers for Northern Transition Area established, modeled on University Lake buffers.

Date	Action
1999	<i>Rating Land in Orange County by its Wildlife Value – A Landscape with Wildlife: Part II.</i> Report presents a methodology for evaluating land as habitat for native wildlife in Orange County. Based on 1988 aerial photography, forested areas were assigned intrinsic (features of the tract only) and contextual (relationship of surrounding uses to the tract) ratings for wildlife value. The highest total ratings for forested areas within Carrboro's jurisdiction were assigned to areas in the Morgan Creek watershed upstream, and surrounding University Lake. Some forested areas along Bolin Creek were also included in the ratings.
2000	<i>Carrboro Vision2020.</i> Policy recommendations are as follows: 1) The town should encourage and support the development of greenways and parklands dedicated to public use along streams and easements. There should be a network of connected greenways throughout the town. These greenways should serve as nature trails, biking and walking trails, wildlife corridors. All should protect our natural environment. 2) The town should practice and encourage ecologically sound and sustainable maintenance of open space, including parks and greenways
2000	Town of Carrboro initiated a benthic macroinvertebrate study of Bolin Creek to establish a baseline of data for those portions of the creek in Carrboro's jurisdiction.
2000	<i>Cape Fear Basinwide Water Quality Plan.</i> First five-year update of plan for the Cape Fear basin. Bolin Creek is included with Morgan Creek in evaluations of the water quality in the Haw River basin. One NPDES permit is active in the Bolin Creek watershed for groundwater remediation at the Exxon service station on Airport Road. The upper reaches of Bolin Creek are classified as fully supporting for their intended use as a freshwater stream. Water quality indicators for sites within Carrboro's jurisdiction are classified as good in 1993 and 1998. The last mile of stream before the confluence of Booker Creek, is classified as partially supporting, a rating attributed to nonpoint source pollution.
2001	Results of one year (four events) of benthic macroinvertebrate sampling at three sites along Bolin Creek revealed an overall bioclassification of fair to good. This classification indicates fairly good diversity of more and less sensitive insect species, as well as an assessment of the habitat within the creek. The studies revealed impacts associated with recreational and urban uses that occur along the creek.
2002	Friends of Bolin Creek forms to pursue preservation of the Bolin Creek corridor
2002-2003	Macroinvertebrate sampling scheduled on an annual basis.
2003	Winmore development approved along Bolin Creek. A condition of the permit requires that all open space be offered for dedication to the Town.



PLANNING BOARD

301 West Main Street, Carrboro, North Carolina 27510

R E C O M M E N D A T I O N

NOVEMBER 6, 2003

Friends of Bolin Creek Proposal for Bolin Creek Master Plan

MOTION WAS MADE BY JOHN MARSHALL AND SECONDED BY STAN BABISS THAT THE PLANNING BOARD RECOMMENDS TO THE BOARD OF ALDERMEN THAT FUTURE PLANS FOR BOLIN CREEK INCLUDE CONSIDERATION OF USING THE GREENWAY AS A NON-MOTORIZED, TRANSPORTATION CORRIDOR CONNECTING NEIGHBORHOODS AND COMMERCIAL AREAS, INCLUDING DOWNTOWN CARRBORO.

VOTE: AYES (6) (Babiss, Carnahan, Hammill, Ludwig, Marshall, West); NOES (0) ABSENT/EXCUSED (4) (Haven-O'Donnell, Hogan, Paulsen, Poulton).

John Marshall, Chair (date)