

ATTACHMENT A

**A RESOLUTION ACCEPTING THE STAFF REPORT OF THE
FRIENDS OF BOLIN CREEK REPORT
ENTITLED "THE FUTURE OF THE UPPER BOLIN CREEK CORRIDOR"**

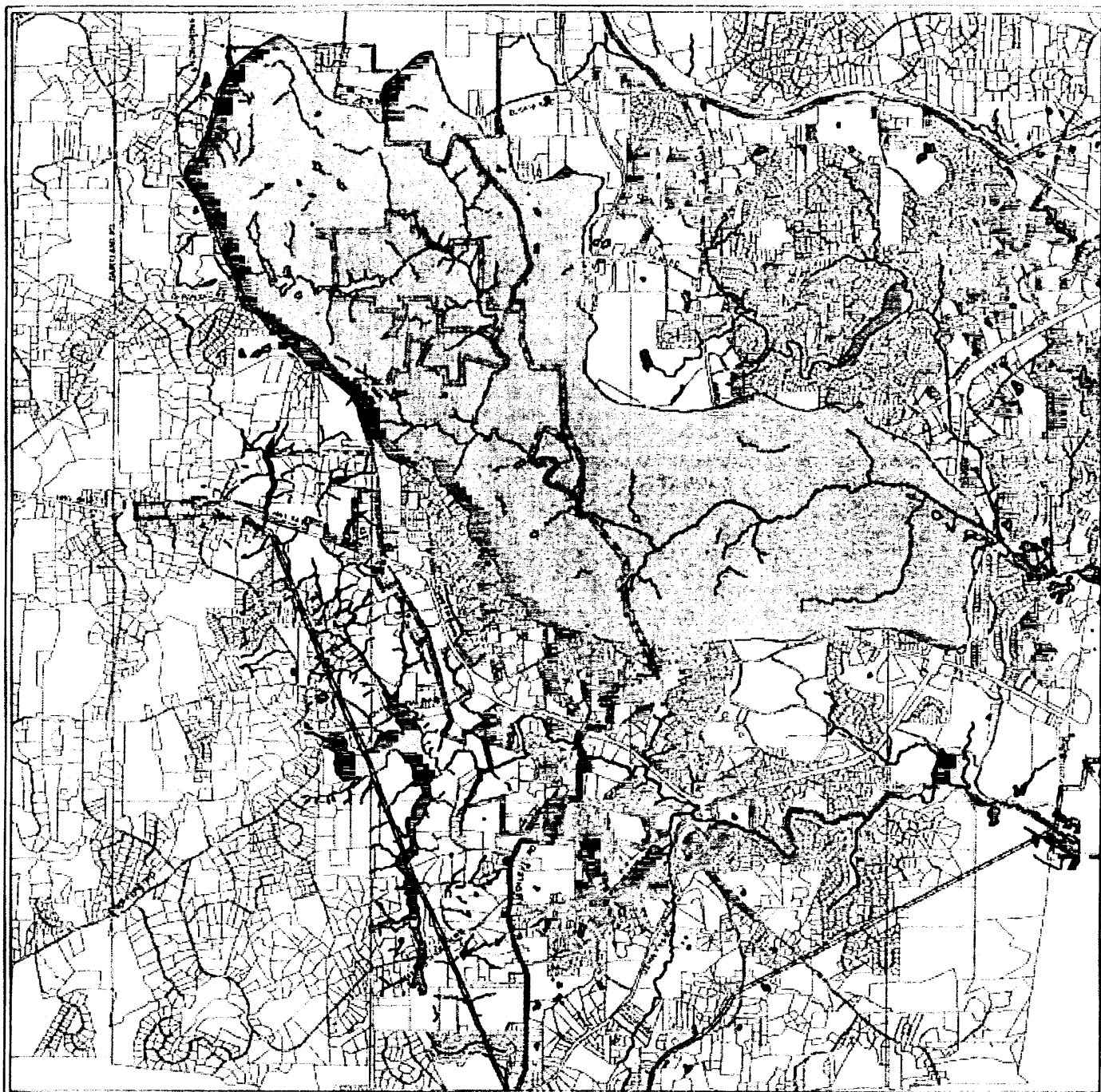
WHEREAS, the Carrboro Board of Aldermen seeks to ensure that its existing and proposed policies and regulations are conducive to strong stewardship of riparian areas and water quality within the Town; and

WHEREAS, the Friends of Bolin Creek, a non-profit organization committed to long-term preservation of the Bolin Creek Corridor has prepared a report on the future of The Upper Bolin Creek Corridor,

WHEREAS, planning staff has provided a report on the "The Future of the Bolin Creek Corridor",

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept this staff report.

This is the 18th day of January in the year 2005.



Bolin Creek Basin



TOWN OF CARRBORO
301 W. Main St.
Carrboro, NC 27510

October 2011
Bolin Creek Basin Study
Map 11a

THIS MAP IS NOT A GUARANTEE AND IS FOR INFORMATION ONLY.

The map is based on the best available data and is subject to change without notice. The map is not a guarantee and is for information only. The map is not a guarantee and is for information only. The map is not a guarantee and is for information only.

- Streams
- Carrboro Town Limits
- Chapel Hill Planning Boundary
- Chapel Hill Town Limits
- Carrboro Planning Boundary
- Lakes and Ponds
- Parcels
- Creek Basin
- BOLIN CREEK
- Text Road Names (Major)

The Future of the Upper Bolin Creek ATTACHMENT C

(Reformatted text only version with maps)

Friends of Bolin Creek, August 2004

Credit

This report was written by Randy Dodd with the assistance of the Friends of Bolin Creek Steering Committee including Dave Otto, Julie McClintock, Doug Nicholas, Dave Cook, Neal Flanagan, Paul Debreczny, and Sallie Benedict. Many other community members have contributed significantly to the development of our vision. In particular, we would like to acknowledge the support and assistance of Marty Mandel, Margaret Heath, Dave Burton, Jacky Rosati, and Jonathan Parkinson.

To offer support, to stay informed about the Friends of Bolin Creek and the work behind this report, or with further questions or comments, visit www.bolincreek.org, or email rcdodd@bellsouth.net.

Acknowledgments

We are grateful to many people for the time and support they have given as we have developed our work and this document. First and foremost, we need to thank all those who have participated in our activities and joined our organization, as well as our family and friends for tolerating the long hours we have invested. We appreciate the leadership and support provided by Mike Nelson, Carrboro's Mayor and the Carrboro Board of Aldermen, along with the Orange County Board of Commissioners. Agency staff have also been very helpful, including David Stancil, Rich Shaw, and Margaret Jones from Orange County, Ruth Heaton, Trish McGuire, and Roy Williford from Carrboro, and Janet Jackson from OWASA.

Cover Photograph

This aerial photograph depicts the upper Bolin Creek area, including some of the key landmarks and parcels that the Friends of Bolin Creek hope will be considered in the establishment of a park and preserve.

Executive Summary

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Bolin Creek is a headwater tributary that is a defining feature of the terrain and natural ecology of Carrboro and Chapel Hill. Much of the development in the area in the immediate future will occur in the Bolin Creek watershed because of land use patterns and policies. Fortuitously, large tracts of open space still occur along the creek, especially in the upper half of the watershed. Much of this land could be put into public trust as a park, preserve, exceptional greenway, and educational resource without conversion from private to public ownership, as about half of the land along the corridor is controlled by government and institutional parties.

Because of the special quality of the corridor, the Friends of Bolin Creek requests that local governments, the university, utilities, conservation organizations, schools, neighborhoods, and citizens unite behind a plan to create a park and preserve along the creek corridor as a shared community treasure, a legacy for future generations, and for the conservation of biological diversity.

As the first step in this process, we urge leaders from governments and the University of North Carolina at Chapel Hill to adopt a joint resolution to protect land along the creek in perpetuity. In addition, we propose a number of concrete steps to enable the realization of this plan.

Foreword: The Friends of Bolin Creek and Our Vision

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In the fall of 2001, a few individuals interested in serving as stewards for Bolin Creek began meeting periodically. Our group adopted the name Friends of Bolin Creek (FoBC), and as our ideas, motivation, and abilities came together, various activities and plans began to take form. Our interests have been broad, including watershed wide concerns such as stormwater management and development review, educational activities, and stream watch efforts. A central desire and concern, above all others, has been to protect, in perpetuity, a substantial amount of land along the creek for future generations to enjoy and continue to steward.

Our vision has included a hope that a core park area be part of the plan for the Bolin Creek corridor and that this core park would go beyond, in area and intention, the protection afforded by mandated stream buffers and open space requirements to include large forest tracts and enough acreage to leave a special legacy rarely found near populated places. As envisioned by the FoBC, this park and preserve would include: a connected corridor from the creek's headwaters downstream to Little Creek; a core natural area of substantial acreage of both bottomland and slope/upland habitats that could provide recreational, wildlife, educational, and research amenities; and a managed riparian ecosystem to protect water quality from upland runoff.

For the past two years, we have worked tirelessly in pursuit of this vision. We have sponsored meetings, hikes, and forums, met with many elected officials and government staff, attended many meetings of various boards and committees, and in general developed a grass roots network of a diverse group of citizens interested in the well being of the creek, adjacent land, and current and future inhabitants. This report presents the fruition of our labors; we seek endorsement of the vision, objectives, and recommendations contained herein from our elected governments, the University of North Carolina, and the community-at-large.

Bolin Creek is a Special Place

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Bolin Creek is the defining natural feature of much of Carrboro and Chapel Hill. It is also a unique creek for a relatively urban environment with respect to the amount of reasonably undisturbed land it traverses in its upper half. This pattern contrasts, to some degree, with the sprawl pattern that has become so endemic in recent decades, and is a product in part of the historic rural character of the land, but also stems from the serendipitous happenstance of land ownership patterns. The State of North Carolina, local governments, and Duke University own considerable acreage near Bolin Creek currently, and have, to date, minimally developed the land. Much of the remaining land is held in large tracts by private landowners, and has, until recently, been minimally developed due to a lack of existing infrastructure, natural constraints, landowners' desires, or land use planning restrictions. As a result, relatively large tracts of forest, in various stages of maturity, exist along much of the creek valley and slopes. The proximity of this forestland to a community with one of the highest population densities in the state affords both a rare opportunity and a cause for earnest reflection about how to best plan for the future of the corridor. People currently take advantage of much of this land extensively for hiking and mountain biking. In addition, biologists, who have requested public endorsement of protection of existing natural areas, have recognized the unique qualities of the natural endowment.

Forested land near our urban core serves many purposes. It provides places for us to hike, bike, and run, take our pets, stroll with our friends and family, manage stress, connect with our creative essence, repose and reflect. It ensures that our streams and air are clean. It provides habitat for a variety of plants, amphibians, reptiles, birds, and mammals. It helps keep us cool in the summer, and dazzles us with beauty with winter snows, fall colors, and spring wildflowers. Perhaps most profoundly, as inhabitants of the land prior to the colonial period have taught us, the forests are not here for us to exploit—they are our kin, and remind us of our place in the web of life.

A Treasure at Risk, a Window of Opportunity

While much land remains relatively undisturbed in the upper Bolin Creek watershed, further inquiry suggests that this treasure is at risk. This risk is not easily discernible, or due to any single cause, but is rather akin to the "tragedy of the commons" associated with the residential, commercial, institutional, and transportation interests of a broad, diverse, and rapidly changing community. In 1966 a sewer line was extended upstream to service the new high school, and over the years, higher density development followed. In fact, about a third of the upper Bolin Creek watershed has been developed in the last 40 years, with much of that occurring in the last decade. Between 1980 and 2000, 25% of Orange County's prime forest was lost. This development has fragmented the forested land, and compromised one of the few natural areas recognized by the State's Natural Heritage Inventory in the incorporated areas of Carrboro and Chapel Hill. Development in the upper Bolin Creek area in the last few decades has changed the character and environmental quality of the area. In addition to the simple change from forested to residential land, suburbanization has impacted hydrology and water quality and the county is now recognized as a nonattainment area for ground level ozone. Furthermore, utility (primarily sewer and power) easements have impacted the riparian ecosystem and, in conjunction with the heavy recreational use, led to erosion on uplands.

Until recently, there were few public safeguards to protect the land and creek, or residents' needs for access to natural areas in their own "backyards". In the absence of such, the quality of the natural heritage has been largely determined by individual landowners needs, practices, good will and the general culture of southern Orange County. In the past decade, a land use plan has been developed for much of the surrounding area, and ordinances have been upgraded. The primary improvements with respect to the creek and its corridor regard a 40% open space provision and enhanced requirements for stream buffers, both determined parcel-by-parcel as part of the development review process. Additionally: Orange County has purchased land with plans for a new park, (whose name [Twin Creeks] is associated with Bolin Creek headwater streams); Carrboro has begun to plan a greenway along Bolin Creek and tributaries; an important parcel, the Adams tract, has recently been purchased; and a private landowner has placed substantial land near the creeks headwaters into permanent conservation. At the State level, a recent watershed study has identified some of the water quality challenges and a watershed plan will soon be completed. These, and other relevant efforts, are summarized in materials prepared by the Carrboro Planning Department (Town of Carrboro, 2003) and by the Orange County Department of Environment and Resource Conservation (2003).

"When the countryside is far away, the city becomes a prison."

"Every city inhabitant should be within a 10 minute walk of a natural area."

"Where land is hilly, keep rural land in the valleys and city land on the upper slopes of the hills."

"Open space must be truly public."

Quotes from A Pattern Language, by Christopher Alexander et al. This is a popular book on design processes for human habitation.

Although opportunity for land conservation has been lost, past safeguards and current initiatives provide a firm foundation for preserving the creek corridor. We are fortunate that upper Bolin Creek has not yet followed the fate of many other urban streams. Nevertheless, the FoBC believes there are important gaps that remain for our collective consideration. The purpose of this report is to identify these gaps and to suggest some options to eliminate them. Ultimately, the vision of the FoBC is to consider Bolin Creek and its downstream neighbor, Little Creek, in their entirety and in relation to surrounding natural areas. The primary focus of this report is on the creek corridor within Carrboro and Orange County's jurisdiction from the headwaters to Estes Drive where development pressures are the greatest¹. Downstream from this point, in Chapel Hill's jurisdiction, the corridor is essentially "built out." Some infill and redevelopment may occur, a greenway extension is in the planning stages, and stormwater management and water quality issues remain to be addressed. However, large-scale land conservation opportunities, the focus of this report, are much more limited. The issues and recommendations that follow represent the collective conclusions of members of the Friends of Bolin Creek Steering Committee as a result of our work during the past two years.

Before discussing potential means for moving our vision forward, it is important to further articulate what we see as the primary impediments, as a variety of unresolved concerns exist for the Bolin Creek corridor. Principal among these is that, collectively, Orange County, the Town of Carrboro, the University, and private landowners, with a few exceptions, have not committed to long-term preservation of natural areas. Local plans, zoning, and ordinances are among the most environmentally progressive in the area and provide environmental amenities including riparian and water quality protection and open space preservation. However, since they apply primarily to a parcel (and not on an ecological basis), and since open space isn't specifically defined as forestland, they do not explicitly ensure that a contiguous corridor of forested land will be achieved, or that important slopes and uplands will be preserved. There is no guarantee that people enjoying recreational activities in the creek corridor will continue to be protected from urban noise, air, and light pollution and visual impacts along trails. Finally, the provisions that do exist are subject to political and economic pressures in the future, and do not hold the legal strength inherent in ownership and long term easements. We are seeking a level of commitment for Bolin Creek from our leaders and community analogous to Eno River, New Hope Creek, and Little River preservation efforts.

"Forests are the original landscape of Orange County. They provide the habitat for most of the plants and animals native to Orange County... "Once the Piedmont forests are leveled, they will not be available to wildlife—or to our children or our children's children."

From A Landscape with Wildlife for Orange County, by Ludington et al. (1997)

¹ Orange County, in "The Adams Tract and Bolin Creek Corridor: Towards a Possible Corridor Master Plan." June 17, 2003, recognized four segments of the creek for planning purposes: a headwaters segment; a segment in Carrboro; a segment in Chapel Hill, and a confluence segment near the juncture of Booker Creek from University Mall to Meadowmont. Our report focuses on the upper two segments of Bolin Creek.

The main jurisdictional issue is that there are four principal entities with policy authority in the upper Bolin Creek corridor: Carrboro, Orange County, the University of North Carolina, and OWASA. With the exception of the county's Land Legacy program and OWASA's interest in protecting water supply reservoirs, none of these entities is in the business of land conservation. Carrboro's historical interest in parks has been more focused on relatively highly developed urban parks. The university has not presented a vision for Carolina North to date that recognizes the inherent value of the land they own for education, research, recreation, community health, or the ecological services provided. Each of these parties have a variety of other priorities, projects and responsibilities that has limited their ability to champion the issue of long term corridor protection through the creation of a park and preserve. This is understandable, as land conservation is not their primary mandate. At the State level, land along Bolin Creek has been identified as deserving protection, but no local action in support of these recommendations has occurred, or commitment to specifically protecting corridor land been made. A watershed management plan is currently being developed by the State, and will provide an important platform for land management in the watershed. Recommendations are due late this summer, and should provide insight into the relative priority of land parcels for preservation from an environmental perspective. The State's jurisdiction for land use planning is limited, so it will be up to local governments to implement the recommendations. It is likely that the plan will provide a tool to free up some state funds to assist local governments.

Some may view the concepts presented in this report to be in conflict with the Northern Transition Small Area Plan (Town of Carrboro, 1997) and other community interests. For example, the Small Area Plan includes planning for mixed-use development. Additionally, it is reasonable to support higher density development near urban centers to contain regional sprawl. Finally, placing land in conservation places restrictions on ongoing development of the area. In spite of these concerns, we believe that our proposal does not represent a change in direction

"We need to introduce a second major into our universities and colleges. Right now there's only one major: upward mobility. It's the major that accommodates the original set of assumptions we settled the continent with, the mind-set that fuels the extractive economy. The new major would be "homecoming." It would educate people to go back to a place and dig in. We need a new generation of settlers, people who could go into these places with a fundamentally different mind-set, with the skills for what we might call "ecological community accounting."

From **Becoming Native to This Place**, by Wes Jackson. 13th Annual E. F. Schumacher Lectures, October 1993, Great Barrington, MA. Wes Jackson runs the Land Institute in Salinas, Kansas, and is widely regarded for his pioneering approaches to agriculture, ecology, and sociology. E.F. Schumacher was an economist whose primary message was development of a new economic paradigm that valued local economies and places, as exemplified in his classic work, **Small is Beautiful**. He saw perennial trees as the principal redeemers of the landscape.

from the available planning platform; rather it provides additional specificity and direction to clarify how the Small Area Plan can be implemented in the upper Bolin Creek corridor. Most importantly, it ensures that our community will support the living environment that is an alternative to the elements of sprawl that we hope to avoid, and contains the "smart growth" and "walkable" elements that we all hope to achieve. We believe this vision reflects the core values of our community.

Another possible objection is that adoption of this concept will require an increase in local tax rates. We have not attempted to complete a fiscal analysis, and do not know to what extent this may be true. However, since a good deal of the land in question is not privately owned, the necessary public investment is not as large as it would be otherwise. Additionally, with the State's Local Watershed Planning process nearing completion, a window of opportunity for obtaining financial assistance from the State is open. A final concern that some may raise is uncertainty about public support. We can confidently say, as a result of a number of public presentations and countless conversations with friends, neighbors and community members, **there is overwhelming local support for the concept presented herein!!**

Moving Toward a Park and Preserve

One of our primary conclusions and requests is that a collective, coordinated decision be made about how each of the four principal players, with assistance from groups like ours and the community-at-large, can work together to better plan for the future of the corridor. The most important immediate action we endorse is for these parties to collectively commit, through resolution and dedication of staff time, to the concept of an extended park and preserve (more than a greenway) along Bolin Creek. We also recommend that a committee be formed as soon as possible, and that the first task of this committee be to endorse a unified map that incorporates the best judgment of what should be preserved.

A number of additional goals will need to be defined and actions will need to be taken by all involved. Table 1 contains a summary of our recommendations which are discussed below. These recommendations represent our carefully considered views on how to act in the best interest of the Bolin Creek watershed, corridor and local community.

In addition to policy direction and development of interjurisdictional consensus and processes, additional money will be required. We recommend several directions. We fully endorse Mayor Nelson's campaign pledge to develop a bond referendum. We also would like to see a working committee formed immediately to work on potential grant applications to the Clean Water Management Trust Fund and other appropriate sources, and ask for local government participation in the application. **We specifically recommend submission of an application to the Clean Water Management Trust Fund for the December 1 deadline.**

A basic principle that can guide the proposed preservation effort is an agreement not to develop bottomlands or valley slopes in a "core park" area and ideally along as much of the corridor as possible. The Eno River Association has been guided by the goal to acquire land from "ridge top to ridge top" along the river corridor. We believe this is an excellent model which serves both ecological and recreational purposes. Preservation of significant acreage of hill slopes and adjacent uplands and associated ecological and recreational services is part of our vision that is absent in local ordinances, state regulations, and policies and practices of both public and private parties. We further recommend that the North Carolina Ecosystem Enhancement Program support our recommendations as a logical extension of the state-sponsored Morgan/Little Creek Watershed Planning Project. In the longer term, we ask the County, Town, University, and private landowners to consider donating or selling significant acreage of the most valuable bottomlands, valley slopes, and adjacent upland habitats into permanent conservation.

As the highest geographic near-term priority, we ask that attention be focused on what we define as the "core park" area between Estes Drive and Homestead Road. The Carolina North project deserves special mention because of its scope. We are encouraged that the university has indicated a willingness to consider preservation of stream buffers, and has not proposed developing any land immediately adjacent to Bolin Creek. The university has not yet, however, committed to long-term land conservation –i.e., preservation in perpetuity, nor is it clear if UNC is considering more than the minimum required by current state regulations. It is also unclear if

Table 1: Summary of Friends of Bolin Recommendations and Implementation Plan with ToC Staff evaluation

Goal	Action	Notes	Timeframe	ToC Staff Evaluation
1. Develop policy to endorse concept and guide creation of park and preserve	Adopt resolution (appointed officials)	Carrboro, Orange County, UNC	Immediately	Adoption of a resolution requires a thorough examination of
2. Identify roles and dedicate staff time	Create working committee	Town and county planning staff, advisory boards, TLC, FOBC	Early fall 2004	
3. Prioritize parcels for consideration	Create map of parcels to consider	Working committee to review Local Watershed Plan	Early fall 2004	
4. Identify permanently unsewered areas	Develop necessary planning vehicles to exclude OWASA water and sewer service in selected headwaters areas	Consider overlay zoning, MOA	Fall 2004	
5. Pursue campaign in "core park" area	University to dedicate land from Carolina North	University to consider recommendations from State EEP, NHP, faculty as well as local committees	Near term	
	Seek closure on Adams Tract negotiations		As soon as possible	
	Pursue easement/acquisition of P.H. Craig property	CWMTF candidate?	Near term	
6. Further engage general public	Plan and hold facilitated forum to formally solicit public input	Present concept. Ask for input on: dedication of local funds (bond); priority areas/parcels; landowners desires for water/sewer service	Late fall 2004	
7. Pursue conservation campaign in upper watershed	Contact landowners individually to seek donation, acquisition, easement	Based on results of committee work and public forum	Over time	
8. Finance campaign	Prepare for and place bond referendum on ballot	Pending results of public forum	Fall 2005	
	Develop grant to CWMTF	Requires landowner interest	Deadline: December 1, 2004	
	Identify other grant/funding opportunities and pursue	Consider local campaign as part of financial planning	Ongoing	
9. Plan and design park and preserve details	Coordinate with greenway and transportation projects, Carolina North, and new development plans	Staff, with oversight from committee and with outside expertise as needed	Design document: 2005 Other documents on project basis	

CWMTF: Clean Water Management Trust Fund; FOBC Friends of Bolin Creek NHP: Natural Heritage Program
EEP: Ecosystem Enhancement Program MOA: Memorandum of Agreement TLC: Triangle Land Conservancy.

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the university is willing to embrace the results of the watershed study commissioned by the Ecosystem Enhancement Program or other critical reference documents including the Orange County Natural Areas Inventory, the NC Gap Analysis project, and the Landscape for Wildlife in Orange County study². The university's commitment to the use of the Bolin Creek corridor for ecological research and education and the university's response to conservation requests by the Friends of Bolin Creek and the Town of Carrboro remain to be determined. We would like to see the university designate much of the land west of Seawall School Road as a permanent biological reserve similar to the North Carolina Botanical Garden and the Mason Farm Biological Preserve. We also have a specific concern about a proposed new road along the creek. Considering that this portion may not be developed for many decades, it is prudent to consider the future of transportation paradigms rather than the current one, and to guide transportation plans in concert with this vision. We are very concerned about the potential for such a road to compromise the integrity of the Bolin Creek corridor.

Preservation of additional areas in the watershed's headwaters is also important for this vision and for implementing the forthcoming local watershed plan. A number of initiatives could be pursued here. For example, Duke University and private landowners could be approached to see if they would be willing to sell or donate land or easements. Some portion of currently unsewered areas could be designated by government and town as permanently unsewered—e. g., west of Old 86 and in the Jones Creek drainage. The county could agree to develop the future park without extending a sewer line. Overlay zoning could similarly be used to limit development density in some portions of the upper watershed. A key component in developing this vision will be setting in place the institutional processes to see it through. The County has proposed a possible process for creation of a Bolin Creek Corridor Master Plan that we strongly endorse:

- ♦ Appointment of a Master Plan Committee from existing Town, County, and UNC committees and including representatives from the Friends of Bolin Creek and Triangle Land Conservancy;
- ♦ Evaluation by the County and Towns as to whether existing staff could provide necessary support to the project. (FoBC greatly appreciates the time that staff have provided to date. We believe that staff commitment and efforts will be critical to the ongoing process.)
- ♦ Development of a project timeline and mission/charge (FoBC hopes that this document will in large part serve this purpose).

In addition, FoBC would like to see the principals agree to contact and work with private landowners to pursue conservation land planning. It is essential to start this process as soon as possible because it is difficult to reverse development plans once they gain momentum. In this regard, we greatly appreciate the efforts of the Town of Carrboro and Orange County to acquire the historically and ecologically valuable Adam's Tract.

² On a May 5 presentation to the Chapel Hill Council, Tony Waldrop asserted that UNC was studying possible boundaries for conservation land to recommend to the Council of State

Mike Nelson on Bolin Creek

"Carrboro's most precious natural resource, the Bolin Creek corridor, also reflects our community, who we are, and why we live here. It is our soul. Carrboro has withstood the tidal wave of sprawl that's taking over America. Preservation of this corridor has us very worried. Skyrocketing land prices are tempting landowners to sell their property to the highest bidders. It's highly susceptible to development. We risk losing this treasure if we don't strategize together to preserve it for many generations.

Since I took office as Mayor of Carrboro, we have taken significant strides to protect the creek. We can be proud of this. The Board of Aldermen and I have adopted policies intended to preserve more open space in Carrboro in the past five years than ever before. We've passed the strongest environmental and anti-sprawl ordinances in the state. We've ordained a 40% open space requirement, making sure that developers will set aside at least that amount land wherever they build—not only along Bolin Creek. We held firm with the University with regard to its plans for the Horace Williams tract through which Bolin Creek flows, and they revised their plan to move development very far from the creek. We're still pressing UNC to set this acreage aside permanently in a land trust or conservancy.

Now I propose that we initiate a Five-year plan to protect the Bolin Creek corridor, from the Chapel Hill border to the rural buffer. This plan would be approved by the Board of Aldermen, with input from our Environmental Advisory Board and our citizens. By taking the reins of our own destiny, we can keep the Bolin Creek corridor out of danger.

As I see it, this plan should include:

- ♦ seeking funds to buy and preserve available land along the Creek corridor
- ♦ seeking conservation easements from private property owners along the Creek
- ♦ supporting the Fall (2003) referendum for county bond money for Greenway acquisition
- ♦ working with non-profit organizations like the Triangle Land Conservancy to purchase large tracts along the creek
- ♦ enforcing Carrboro's 40% open space requirement to protect the creek from development
- ♦ preparing to pursue our own bond referendum to preserve open space

Within five years, Bolin Creek should be protected in perpetuity for the enjoyment of our children and our children's children. I am committed to doubling our efforts toward this goal. At the heart and soul of managed growth is a community that can't stand to see its green places and open spaces taken away. Connected neighborhoods house connected neighbors, and our shared devotion to Bolin Creek can bring us together in ways that will make our community even stronger.... I feel certain that the citizens of Carrboro and our elected officials will succeed in preserving the Bolin Creek corridor by acting quickly, forcefully, and harmoniously."

The committee to re-elect Mike Nelson, <http://electmikenelson.com/heart&soul.html>, fall 2003.

We have been promoting the concept of a park and preserve along Bolin Creek for several years. As this idea gains momentum, we will all need to think carefully about the details of design and implementation. Issues such as where and how people will gain access to conservation lands, trail and facility specifications, use regulations and requirements, management responsibilities, and legal and financial aspects will all warrant careful consideration. We therefore recommend that, as part of conservation, greenway, and transportation planning, the principals enlist landscape, transportation, and recreation planners, architects and engineers, with input from ecologists, to design the major intersections between the future greenway, roads, and potential rail lines as well as the trail/greenway system itself. We particularly encourage the University to seek input from ecologists and expert land planners with ecological credentials as the Carolina North project continues in its evolution. It will be important to consider major nodes and points of access as part of this process. Some of the important design considerations will include determining specific uses of different sections, handicapped accessibility, foot and bicycle flow, including major road intersections, and minimizing water, noise, and light pollution.

Concluding Remarks

As Mayor Nelson has said many times, Bolin Creek is the heart and soul of Carrboro. It is also the heart and soul of Southern Orange County. The Bolin Creek Corridor and adjacent lands, primarily in the upper sections, constitute an extensive natural resource and treasure that remains remarkably intact. The creek corridor between Estes Drive and Homestead Road in Carrboro doesn't appear as a park on any map, yet it is one of the most extensively used natural areas in southern Orange County for hiking, biking, jogging, nature study and escape from the pressures of work, home and urban life. It is also a miniature wildlife preserve smack in the center of one of the fastest growing regions of North Carolina. On any day of the year one can hear the plaintive voice of the barred owl chatting nearby and it is not uncommon to see the owls swooping through the trees or diving low to introduce themselves to those who venture into their world.

The Upper Bolin Creek Corridor is a natural paradise that is currently available to all for physical and spiritual renewal. It is also a treasure that has been impacted by recent development, and remains at considerable risk from development planned in the future. We are incredibly fortunate that so much of the corridor still remains intact, but precious little of this valuable resource has yet been preserved or protected in any permanent manner. The window of history is briefly open, affording us the unique opportunity to take action to preserve as much of the corridor and adjacent forest land as possible. It is our responsibility to take action today to preserve this treasure for future generations to cherish, so they can learn about the miracles of nature and experience the incredible beauty of Catesby's trillium and dwarf crested iris in spring, the spectacular crimson blossom of the cardinal flower, the intricate wonder of the passion flower in the sweltering depth of summer, the brilliant symphony of autumn foliage and the delicate artistry of a winter snow or ice storm along the creek. This opportunity is our gift today and our responsibility to preserve for tomorrow.

Concluding Remarks (continued)

This document provides a plan and list of suggested actions for local governments, for the University of North Carolina and for local citizens to take in order to create a Bolin Creek Park and Preserve. The Friends of Bolin Creek humbly offer this plan to facilitate the process of establishing the proposed park and preserve. We realize that many hands and minds and institutions must join and commit to this process to make it a reality. Our group is passionately dedicated to the preservation of the Bolin Creek Corridor and adjacent forest lands and we will freely commit our time and talents to achieve this goal. We invite and urge the Towns of Chapel Hill and Carrboro, Orange County, the University of North Carolina, OWASA and concerned citizens to join us in preserving this natural treasure for future generations!

References and Related Reading

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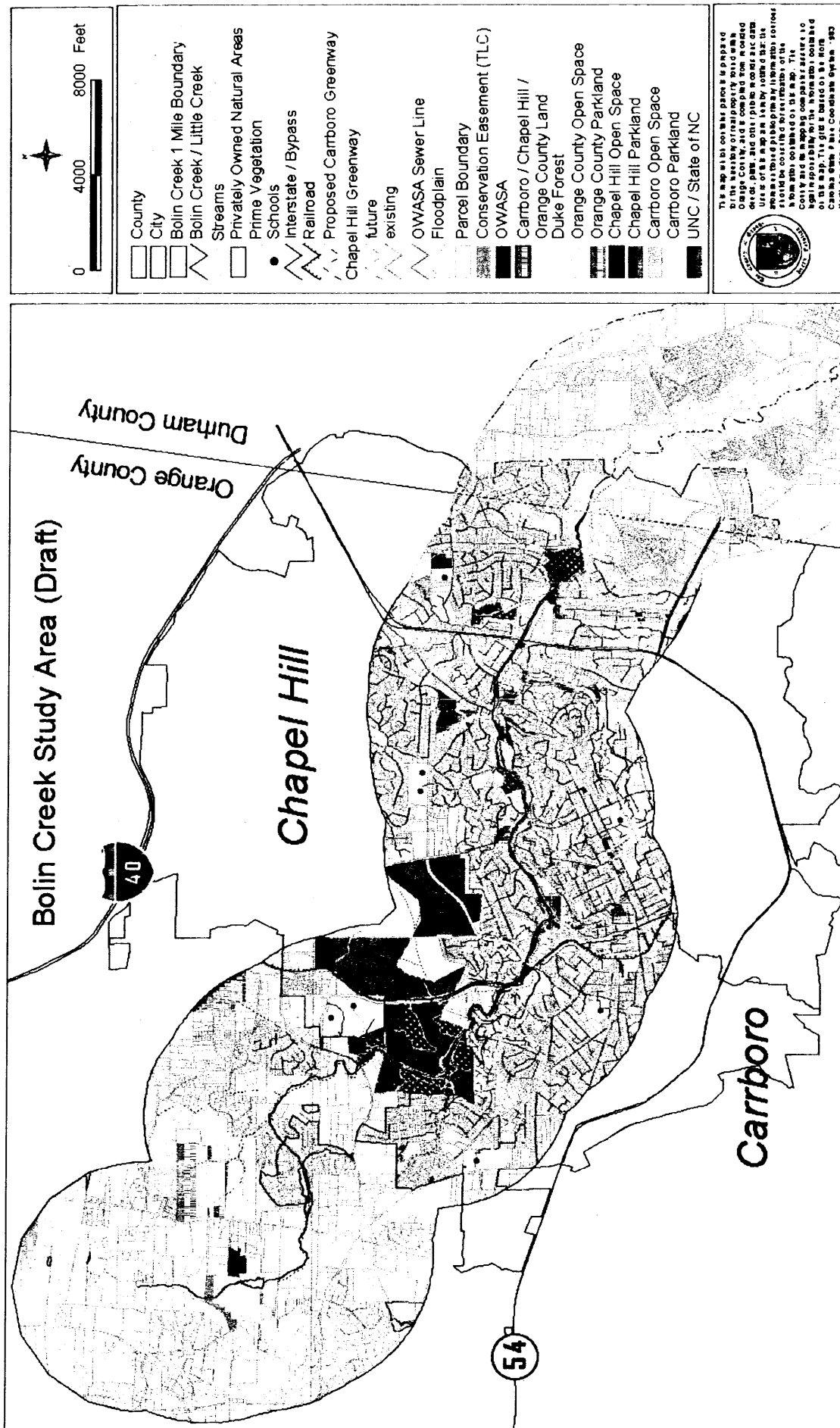
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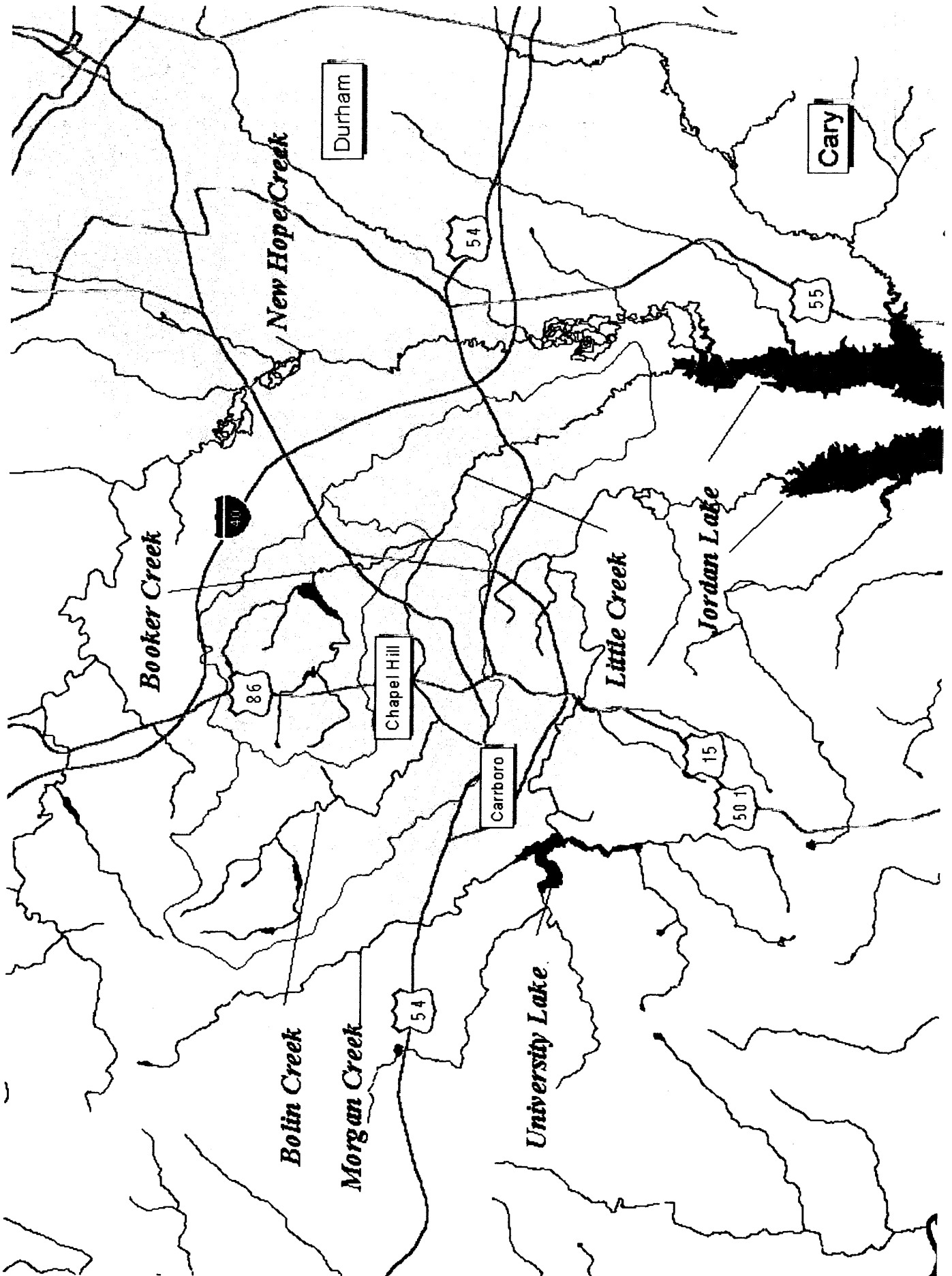
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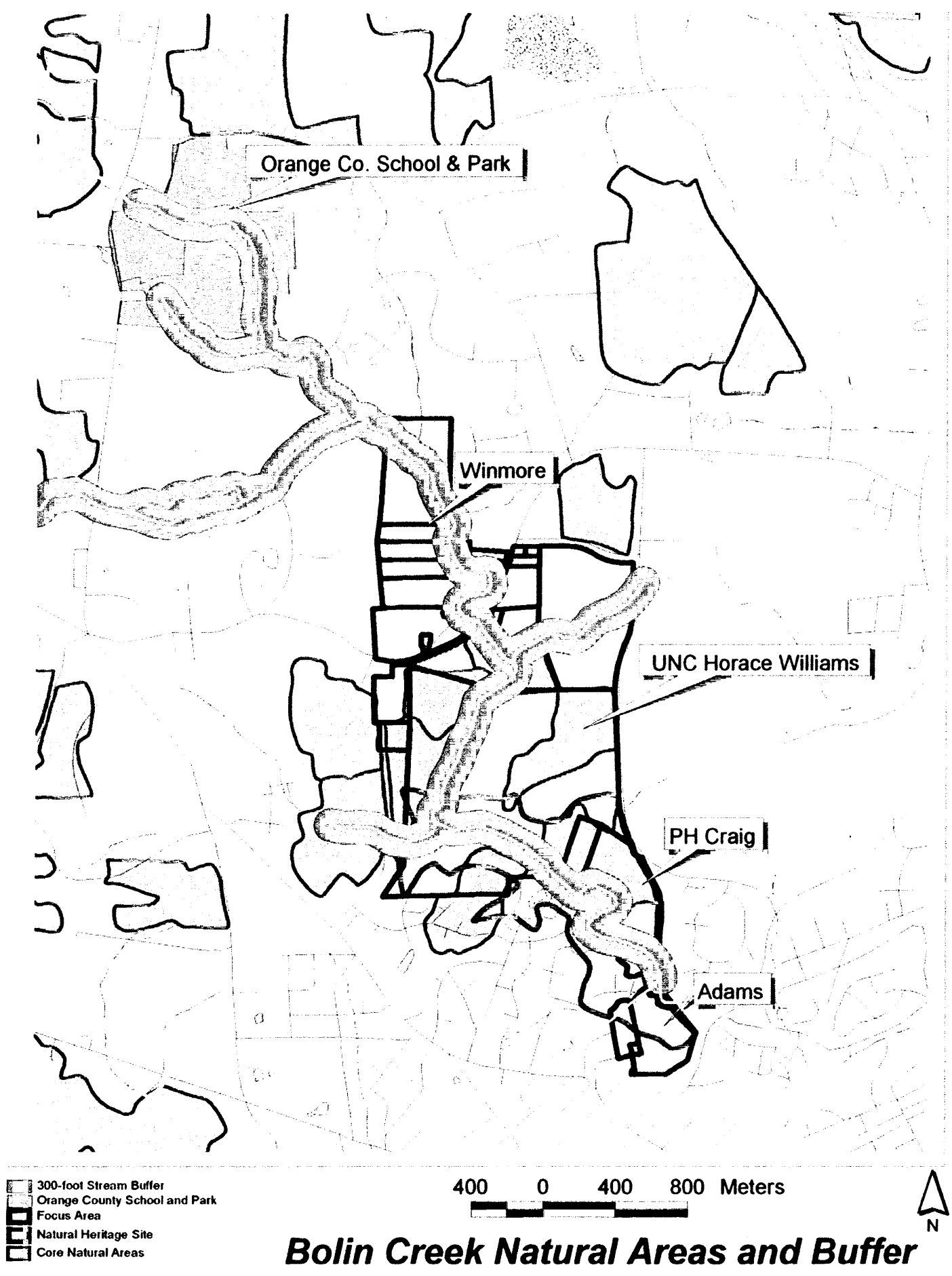
Town of Carrboro. December, 2003. Background material provided to Board of Aldermen for Greenway Planning Session by Town Planning staff.

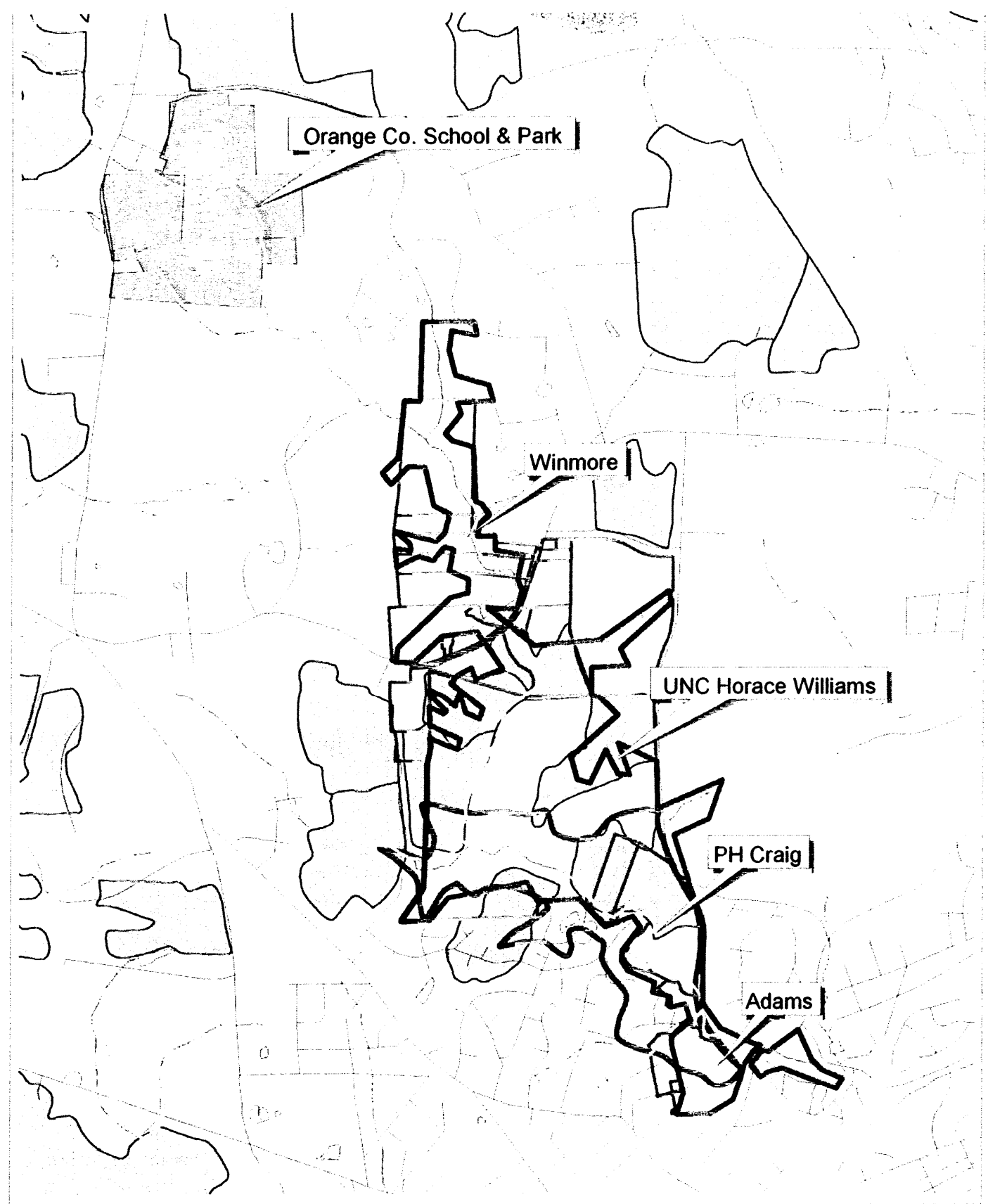
www.townofcarrboro.org/boa/Agendas/2003/12_16_2003.htm.






Town of Carrboro. 1997. Facilitated Small Area Plan for Carrboro's Northern Study Area.









-  Proposed Preserve Boundary
-  Focus Area
-  Natural Heritage Site
-  Core Natural Areas
-  Orange County School and Park



Bolin Creek Proposed Preserve



Town of Carrboro Environmental Planning



STAFF REPORT

To: Steve Stewart, Town Manager
Mayor and Board of Aldermen

From: Noah Ranells, Environmental Planner
Patricia McGuire, Planning Administrator

Date: 12 January 2005

Subject: The Future of the Upper Bolin Creek Corridor
Report submitted by the Friends of Bolin Creek

The Friends of Bolin Creek presented "The Future of the Upper Bolin Creek Corridor" report to the Board of Aldermen on 17 Aug 04. A resolution was passed by the Board of Aldermen to refer the report to staff for evaluation. A previous staff report was completed and presented by Trish McGuire to the Town Manager, the Mayor, and the Board of Aldermen in November of 2003 and served as a response to the Friends of Bolin Creek proposal that was presented to the Board of Aldermen in January 2003.

This staff report uses the goals as presented by the Friends of Bolin Creek in Table 1 of The Future of the Upper Bolin Creek Corridor report. Following each goal is a response by staff.

Goal	Action	Notes	Timeframe
1. Develop policy to endorse concept and guide creation of park and preserve	Adopt resolution (appointed officials)	Carrboro, Orange County, UNC	Immediately

The Town of Carrboro, through its policies, regulations, and plans, and funding, has endorsed a concept that guides creation of a park and preserve along Bolin Creek. The most recent actions are the 1994 Master Recreation and Parks Plan, the 1998 Facilitated Small Area Plan for Carrboro's Northern Study Area (NSA Plan), and the Recreation and Parks Master Plan update that is currently underway. Some actions,

such as the Joint Planning Land Use Plan, and, the NSA Plan, and the Master Recreation and Parks Work Group Report have resulted from the cooperative efforts of the Joint Planning partners and therefore include the Town of Chapel Hill and Orange County, in addition to Carrboro.

Goal	Action	Notes	Timeframe
2. Identify roles and dedicate staff time	Create working committee	Town and county planning staff, advisory boards, TLC, FOBC	Early fall 2004

Approximately half of Carrboro's jurisdiction is located within the Bolin Creek watershed. In fact, the Bolin Creek drainage basin defines the boundaries of the Transition Areas. The NSA Plan, with accompanying regulations incorporated into the Land Use Ordinance in 1999, is the principle planning document that guides new development in the Bolin Creek watershed. The plan recognizes the designation of the creek's drainage basin as the area of future urban growth and establishes protection of significant natural areas as its defining goal. Consequently, considerable staff time is committed to protecting and enhancing the creek and surrounding natural areas through diligent implementation of the policies and regulations that have been adopted regarding Bolin Creek.

Specific planning staff projects that are related to Bolin Creek include the National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater permit implementation along with regular duties for participating in plan review. The local watershed planning initiative in the Little & Morgan Creek Watershed supported by the NC Ecosystem Enhancement Program and the Jordan Lake Stakeholder Project that addresses rulemaking on a nutrient management strategy for the Jordan Lake watershed are two projects that will be placing additional demands on staff time.

Staff is also conducting a comprehensive review of the Land Use Ordinance and several components of this project will have water quality and natural resource protection or management components. All the aforementioned activities have definite and quantifiable beneficial effects on the quality of buffers, creeks, and overall water quality in Bolin Creek. In the current and upcoming fiscal year, an effort such as the one proposed by the FOBC would require additional staff resources or re-prioritization of projects that are already underway.

Goal	Action	Notes	Timeframe
3. Prioritize parcels for consideration	Create map of parcels to consider	Working committee to review Local Watershed Plan	Early fall 2004

Town of Carrboro staff has been actively participating in the Local Watershed Plan effort sponsored by the NC Ecosystem Enhancement Program (EEP) of the NC Department of Environment and Natural Resources. A draft Targeting of Management Report was presented to stakeholders on 7 September 2004 and to the Assembly of Governments at the 29 September 2004 meeting. Contained in this document is parcel level prioritization for preservation based on specific criteria used in the Local Watershed Planning effort.

Prioritization of parcels for conservation as noted by the FOBC may rely on goals of current programs such as the NPDES Phase II Stormwater and Jordan Lake Nutrient Management Strategy or may utilize a different framework. Stewardship responsibilities and costs must also be addressed as part of the corridor park and preserve concept in addition to purchase or easement acquisition.

Recent meetings and a close working relationship with EEP staff have resulted in new funding opportunities for implementing best management practices and restoration geared towards improving stormwater quality and reducing nutrient and sediment transport to Jordan Lake. Because of its comprehensive nature and its multi-jurisdictional approach, at the present time, staff is viewing the prioritization provided in the Targeting of Management Report as a firm and clear basis for all efforts related to preservation and stormwater remediation.

Goal	Action	Notes	Timeframe
4. Identify permanently unsewered areas	Develop necessary planning vehicles to exclude OWASA water and sewer service in selected headwaters areas	Consider overlay zoning, MOA	Fall 2004

The designation of permanently unsewered areas is a cornerstone of the past 20 years of planning in southern Orange County. In Carrboro, milestones in this effort were the 1983 decision to restrict the University Lake watershed to low-intensity development that could be supported by on-site sewer systems and the 2002 adoption of the Water and Sewer Boundary Agreement.

The long term plan for Carrboro's Transition Areas involves a moderate level of development to provide for growth. The boundary of this area was defined by the Bolin Creek drainage basin so that new development could be served by gravity-fed sewer lines. In 2002, Orange County purchased nearly 200 hundred acres at the headwaters of Buckhorn Branch and Jones Creek, major tributaries of Bolin Creek, for use as a park and school site. The conservation efforts and development choices that have occurred at the headwaters of the main stem of Bolin Creek may preclude the need for sewer extensions for many years. Existing land development patterns in the north, northeast and northwest portions of the Transition Areas may require sewer service in a shorter time frame and this should continue to be available.

While the further designation of permanently unsewered areas within the Transition Area portions of the Bolin Creek drainage basin may be inappropriate, other actions can be taken to minimize the impacts of sanitary sewer lines. In recognition of the possible impacts of sewer lines on water quality, the Board of Aldermen has, since 1999 required that within a buffer cross section, sewer lines must be located at least 25 feet away from the streambank [LUO section 15-269 (f)]. The Water and Sewer Management Planning and Boundary Agreement was adopted 11 June 2002 as part of the Joint Planning Agreement between Carrboro, Chapel Hill, and Orange County provides an urban services boundary that delineates sewer and unsewered areas.

Goal	Action	Notes	Timeframe
5. Pursue campaign in "core park" area	University to dedicate land from Carolina North	University to consider recommendations from State EEP, NHP, faculty as well as local committees	Near term
	Seek closure on Adams Tract negotiations		As soon as possible
	Pursue easement / acquisition of P.H. Craig property	CWMTF candidate?	Near term

The Town of Carrboro Board of Aldermen has shown its support of efforts to promote the mutually beneficial development of Carolina North. At a 20 January 2004 Board of Aldermen meeting, the Conceptual Draft Master Plan of Carolina North" was discussed. Tony Waldrop from UNC-CH administration was present to respond to concerns of the Aldermen. The 27 February 2001 report to the Board of Aldermen included information on land use in Carolina North (Table 1).

Table 1. Proposed land uses of Carolina North

Total Mandatory Open Space	259 acres (26%)
Floodplain	57 acres
Stream Buffer	64 acres
Open Space (inc. setbacks)	22 acres
<i>Note: 36 acres (21 acres park / quads and 15 acres natural areas) according to 29 Jan 2004; Board of Aldermen. Item D1. Modified values not used in calculations</i>	
Runway approach	116 acres
Total Additional Land Preservation	256 acres (26%)
Total Active and Passive Recreation	59 acres (6%)
Total Prior Committed Land	170 acres (18%)
Existing Airport	110 acres
University Physical Plant	60 acres
Total Developable Land	235 acres (24%)
Total Acreage	979 acres (100%)

Approximately 350 of the 979 acres are located in the Carrboro Planning Jurisdiction, with plans to retain ~70% as open space. There are two waste sites, a 35-acre landfill and 0.2-acre chemical site that are part of the CN property but exact site location was not available.

The Horace Williams Advisory Committee presented their report to the Board of Aldermen on 28 October 2003 and expressed their concerns regarding Carolina North. Item 1 on this list was the "lack of a written firm commitment to permanently protect as natural open space the land surrounding Bolin Creek." Recommendation A stated that "All property west and south of Bolin Creek is physically separated by the creek from the rest of the Horace Williams tract should be dedicated as permanent open space to prevent it from being developed publicly or privately. A greenway along Bolin Creek should be permanently protected either through dedication or preservation."

In Chapel Hill, the Horace Williams Citizens Committee provided their report to the Chapel Hill Town Council on 8 October 2003 and requested that 75% of the Horace Williams Property be preserved in perpetuity.

The Adams Tract negotiations and final closure were completed on 14 October 2004 and the event was a milestone in the effort to protect the Bolin Creek Corridor. Previously, on 16 December 2003, the Board of Aldermen voted to authorize the Town staff to contact Mr. Craig to determine his interest in providing an easement along Bolin Creek. Town Attorney, Mike Brough, has made initial contact with Mr. Craig and communications are ongoing. Currently, Mr. Craig is not interested in developing a conservation easement with the Town of Carrboro.

Grant proposals to the NC Clean Water Management Trust Fund (CWMTF) are due 1 July and 1 December each year. While these grants can provide up to 100% of the funding for projects, trustees may choose to fund projects at less than 100% of the application request. <http://www.cwmf.net/criteria.htm>.

It is important to note that all development projects along the Bolin Creek Corridor are subject to current LUO sections that were added or amended following the NSA Plan process in 1999. Revised buffer widths are based on slope in the buffer as well as floodplain area and provide enhanced long term protection of the buffer. In addition, all steep slopes and hardwood areas are considered natural constraints in the development process where approval of buildings and roads is extremely challenging to developers. Greenway easement requests to developers are a standard process during the development review process and contribute to corridor protection in the Upper Bolin Creek watershed.

In addition, the Ecosystem Enhancement Program Local Watershed Planning effort in the Little & Morgan Creek watershed (see discussion under Goal 3) has resulted in a Targeting of Management Report that is expected to facilitate further consideration of preservation opportunities in the Upper Bolin Creek watershed.

Goal	Action	Notes	Timeframe
6. Further engage general public	Plan and hold facilitated forum to formally solicit public input	Present concept. Ask for input on: dedication of local funds (bond); priority areas/parcels; landowners desires for water/sewer service	Late fall 2004

Public engagement has been ongoing with regard to the various initiatives through the Public Hearing process associated with the adoption and amendments of the Joint Planning Agreement. Local watershed stewardship groups also represent and engaged general public. Alternative public forums may be beneficial in raising public awareness and perhaps support for more aggressive land preservation efforts in the Bolin Creek watershed.

Events such as the "Make a Difference Day" on 23 October 2004, sponsored by the Town of Carrboro Parks and Recreation Department, focused on Bolin Creek, and the Friends of Bolin Creek "Bolin Creek Festival" on 9 October 2004 drew significant attention to the importance of Bolin Creek in our community. Finally, the 2005 update to

the Recreation and Parks Comprehensive Master Plan will involve multiple opportunities for the general public to provide input and suggestions.

Goal	Action	Notes	Timeframe
7. Pursue conservation campaign in upper watershed	Contact landowners individually to seek donation, acquisition, easement	Based on results of committee work and public forum	Over time

The Town of Carrboro continues to implement the policies and ordinance amendments associated with the FSAP greenway connectivity recommendations as well as the existing 1994 and forthcoming 2005 Recreation and Parks Comprehensive Master Plan. Staff rigorously implements the Land Use Ordinance and routinely requests and in many cases obtains offers of dedication of conservation areas during the development process. Staff also considers policies and regulations that can further enhance protection of natural resources in the Upper Bolin Creek watershed.

Goal	Action	Notes	Timeframe
8. Finance campaign	Prepare for and place bond referendum on ballot	Pending results of public forum	Fall 2005
	Develop grant to CWMTF	Requires landowner interest	Deadline: December 1, 2004
	Identify other grant/ funding opportunities and pursue	Consider local campaign as part of financial planning	Ongoing

Any financial commitment to Bolin Creek beyond what has been currently approved by the Town, should only be considered in conjunction with the adopted Capital Improvement Program which already contains a number of important projects for which funding will be difficult. Consideration of another bond referendum coming so close to the sidewalk bond referendum and the purchase of the Adams tract will put increasing pressure on the Town's tax rate.

Goal	Action	Notes	Timeframe
9. Plan and design park and preserve details	Coordinate with greenway and transportation projects, Carolina North, and new development plans	Staff, with oversight from committee and with outside expertise as needed	Design document: 2005 Other documents on project basis

This goal will be largely addressed by the current revision to the Recreation and Parks Comprehensive Master Plan that is scheduled for completion by Summer 2005. The Morgan Creek West Greenway design process will also inform site-specific environmentally sensitive trail design guidelines that will be used in the Bolin Creek Greenway design that is scheduled to take place in FY 20076 also using STP-DA funds available through the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization



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.

ATTACHMENT B-2

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

ATTACHMENT B-3

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

ATTACHMENT B-5

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

ATTACHMENT B-6

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

614 Beech tree Ct.
Chapel Hill, NC 27514
June 17, 2004

Mike Nelson
Mayor of Carrboro
A-22 White Oak Condominiums
105 Fidelity St
Carrboro, NC 27510

Dear Mike,

Friends of Bolin Creek Steering Committee members, Randy Dodd, Dave Otto and I met June 1 with UNC representatives Tony Waldrop and Mark Crowell to discuss our vision piece on developing Bolin Creek Park and Preserve. We felt the time was right for us to speak to UNC, because these Carolina North project directors have said in several recent public meetings that they are studying the possibility and potential extent of conserving lands along Bolin Creek, a topic of keen interest to us. Attached is the letter we gave to both of them. Please share this letter with your board.

We presented an overview of our plan for Upper Bolin Creek. As you are aware, UNC or the State of North Carolina owns about two-thirds of the "core park" section between Estes Drive and Homestead Road. We described our vision and also asked about Carrboro's desire that UNC preserve all the land west and south of Bolin Creek. Tony's response was that it would be unlikely that the Board of Trustees would find this acceptable. Here are a couple of points and comments to note about our conversation.

1. We highlighted the Little Creek Watershed Study and pending report due in late summer, emphasizing its importance for the "vision" for a nature preserve, as well as its relevance to UNC in assessing the ecological value of specific tracts, including Carolina North open space.
2. The economic value for jobs creation of Carolina North was repeated often. Tony Waldrop's title is Vice Chancellor for Research and Economic Development for UNC. Mark Crowell has a similar role. He specializes in intellectual property and

was involved in the development of Centennial Campus at NC State.

3. Tony and Mark made no commitment to preservation of lands along Bolin Creek, although they expressed an interest in the environment. However, they indicated it was desirable for UNC to provide amenities for the community in this project. It was our impression they would view an extensive Bolin Creek Preserve as a desirable community amenity, although they appear to be reluctant to recommend such a proposal to the Trustees at this point. Furthermore they appeared to be unfamiliar with the topography of the area and the requirements of local ordinances.

4. We explained we will be taking our report to area governments to ask for support of a Bolin Park Preserve. Tony indicated a provisional willingness for UNC to join as a participant in a Master Planning effort for a Bolin Creek Preserve that would encompass all jurisdictions.

In summary, we were pleased we received a cordial and attentive hearing. Tony and Mark were generous with their time and listened carefully. In conclusion, we believe it was essential to initiate this discussion with UNC--the primary stakeholder in the "core park" concept for Bolin Creek.

Sincerely,



Julie McClintock

for

Friends of Bolin Creek

Attachment: letter to T Waldrop

FRIENDS OF BOLIN CREEK
P.O. Box 234
CARRBORO, NC 27510

June 1, 2004

Tony Waldrop
Vice- Chancellor for Research and Economic Development
312 South Building 005
CB 4000
Chapel Hill, NC 27599-4000

Dear Tony,

Thanks for meeting with us today.

Shortly after the beginning of the 21st Century, a few individuals interested in serving as stewards for Bolin Creek began meeting periodically. Our group adopted the name Friends of Bolin Creek (FoBC), and as our ideas, motivation, and abilities came together, various activities and plans began to take form. Our interests have been broad, including watershed-wide concerns such as stormwater management and development review, educational activities, and stream watch efforts. As our organization became more formal, we applied for non-profit status from the State. A central desire and concern, above all others, has been to protect a substantial amount of land along the creek for future generations to enjoy and continue to steward.

FoBC envisions that this park and preserve include: a connected corridor from the creek's headwaters downstream to Little Creek; a core natural area of substantial acreage of both bottomland and slope/upland habitats that could provide recreational, wildlife, educational, and research amenities; and a managed riparian ecosystem to protect water quality from upland runoff. Our goal is for UNC, local governments and the environmental community to plan for a preserve which goes beyond the protections afforded by mandated regulatory requirements. The preserve would include large forest tracts and enough acreage to leave a special legacy rarely found near populated places.

Forested land near our urban core serves many purposes. It provides places for people to hike, bike, and run, take our pets, stroll with our friends and family, manage stress, connect with our creative essence, repose and reflect. It ensures that our streams and air are clean. It provides habitat for a variety of plants, amphibians, reptiles, birds, and mammals. It helps keep us cool in the summer, and dazzles us with beauty with winter snows, fall colors, and spring wildflowers. Perhaps most profoundly, as inhabitants of the land prior to the colonial period have taught us, the forests are not here for us to use -- they are our kin, and remind us of our place in the web of life.

For the past two years, we have worked tirelessly in pursuit of this vision. We have sponsored meetings, hikes, and forums, met with many elected officials and government staff, attended many meetings of various boards and committees, and in general developed a grass roots network of a diverse group of citizens with an interest in the well being of the creek, adjacent land, and current and future inhabitants. There is a great deal of enthusiasm and momentum for the creation of a park and preserve along the corridor among many parties. As Mayor Nelson has said many times in the past, Bolin Creek is the heart and soul of Carrboro. What initiative can move us forward? FoBC has drafted a report entitled "The Future of the Upper Bolin Creek Corridor." We invite you to read and reflect on this report which offers a specific vision about the part of Bolin Creek which is least developed, and therefore most endangered by future development.

We are keenly aware that UNC owns two-thirds of the undeveloped area in the Upper Bolin Creek basin. We sincerely hope you will endorse this vision on behalf of the citizens of North Carolina and work with us to implement it. We believe that the concepts in this report do not compete with the University's goals, but rather, enhance and complement the evolution of the Carolina North project. Imagine the value to the future staff, faculty, students who are part of the Carolina North community to have this preserved as an amenity, available for their research, education, and enjoyment.

We are pleased that in your most recent communications, you have indicated a willingness to consider the preservation of land along Bolin Creek, and have suggested that UNC could make a request of the Council of State. We urge you to seriously consider existing work and the results of an important new study which will be completed this summer before you make such a recommendation. First we recommend that the staff of the Carolina North project read carefully the report prepared by the North Carolina Natural Heritage Program. (Please see quotes in attachment). We wish to bring two additional state level studies to your attention. First, in the 1990s, the Triangle Land Conservancy (TLC) commissioned a study to identify "core natural areas" in the region. This study, completed by recognized experts, identified considerable acreage on the Carolina North tract, as well as adjacent tracts, as qualifying as core natural areas.

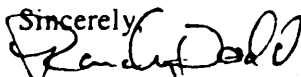
Finally, we want to emphasize the importance of the North Carolina Ecosystem Enhancement Program (EEP) study nearing completion which is part of the Local Watershed Planning process. The result of that study will document and prioritize the lands which should be preserved along Bolin Creek. We have worked closely with the project staff, and believe their work will be key for UNC and our entire local community to seriously study and consider.


In conclusion, we would like to see the University designate much or all of their land west of Seawall School Road as a permanent biological reserve similar to the North Carolina Botanical Garden. In doing so, we are not specifically requesting that all of the land be placed into Preserve or "wilderness", with no access, but rather, that the natural endowment be recognized, and that a careful plan be established to guide its use. (This is similar to a request you have received from the Town of Carrboro.)

The Bolin Creek Corridor and adjacent lands, primarily in the upper sections, constitutes a valuable natural resource and treasure that remains remarkably intact. The creek corridor between Estes Drive and Homestead Road in Carrboro does not appear as a park on any map, yet it is one of the most extensively used natural areas in southern Orange County for hiking, biking, jogging, nature study, and escape from the pressures of work, home, and urban life. It is also a miniature wildlife preserve smack in the center of one of the fastest growing regions in North Carolina.

The Friends of Bolin Creek are dedicated to the preservation of the Bolin Creek Corridor and adjacent forestlands and we will freely commit our time and talents to achieve this goal. In the next few months we will be making a similar request of local governments. We invite UNC to join us in preserving this natural treasure for future generations and to consider the following next steps:

- Analyze and implement the Natural Heritage, TLC, and EEP study recommendations with input from ecologists and expert land planners
- Recommend stream corridor and upland areas for permanent preservation
- Redesign roadway adjacent to Bolin Creek

Sincerely,

Randy Dodd


Julie McClintock


Dave Otto

For Friends of Bolin Creek

cc: Mike Nelson, Mayor of Carrboro
Barry Jacobs, Orange County Chair of Commissioners

Attachment

North Carolina Natural Heritage Program Report¹

A few quotes are provided below:

"The ... Natural Area shows definite significance on a regional level and perhaps on a national level.....A mature, relatively undisturbed complex of climax hardwood Community Types should be set aside and preserved so that the natural diversity of this region can be recognized, studied, and more fully understood."

"This area displays exceptional botanical diversity. The climax hardwood forest....includes almost 70% of the canopy species commonly found in the Piedmont."

"The biotic and abiotic diversity...makes the land worthy of preservation....First and most important, the mature hardwood complex should be left undisturbedSecond, the area is excellent for conducting successional studies over a variety of soils, lithologies, and landforms....Perhaps the entire area should remain undisturbed and allowed to reach a climax stage, thus allowing close monitoring of the successional stages."

"This site includes one of only nine sites where four toed salamander (*Hemidactylum scutatum*), a state-listed species of unknown distribution, has been recorded in the county."

¹ Inventory of the natural areas and wildlife habitats of Orange County, North Carolina
by Dawson Sather and Stephen Hall.

Triangle Land Conservancy in coordination with the North Carolina Natural Heritage Program, 1988.

F-7
FRIENDS OF BOLIN CREEK

P.O Box 234

CARRBORO, NC 27510

August 10, 2004

Dear Mayor Nelson and Carrboro Board of Aldermen,

We are pleased to deliver to you in advance of the August 17 meeting, our report for the Future of Upper Bolin Creek. The report explains why this resource is so important to the citizens of our area, and why conserving land along Bolin Creek along with some key upland areas can protect a particularly rich creekside habitat, preserve the water quality of a future drinking water supply, and provide a public recreational area for residents to enjoy. This report represents the fruition of 2 years of work by members of our organization. We believe that our report complements the work sponsored by the State's Ecosystem Enhancement Program that you will be hearing about very soon via a final report to the Assembly of Governments in September.

The acquisition of the Adams Tract is vital to the long-term dream of a conservation corridor including streamside land and a significant core park area running from the spring on the Lloyd Andrews homestead to Jordan Lake. The acquisition of this tract demonstrates your foresight and we commend you for it. This purchase could become the gateway to a Bolin Park Preserve. Town plans for a Carrboro Greenway could ensure connecting these riparian areas to potential other natural areas.

What are the next steps to making the concept of a Bolin Creek Preserve real? We want to draw your attention to the Implementation Plan on page 7 which suggests what these steps might be. Our principle request to you: Develop by resolution a policy to endorse the concept and guide the creation of a park and preserve. There are other recommendation we hope you will consider as well.

We welcome your feedback on the report. As a next step we ask you to receive and endorse this report and to refer it to Town staff, as well as appropriate Boards, including your Environmental Advisory, Planning and Northern Transition Boards, Recreation and Parks Commission, and the Intergovernmental Parks Work Group for their consideration. We encourage you to continue to work actively with UNC, Orange County, OWASA and Chapel Hill to move this vision forward.

Thank you for you attention and consideration in this matter and for your ongoing support.

Sincerely,

Julie McClintock
Co-Chair Friends of Bolin Creek
919 967-3661 (home)
mcclintock.julie@mindspring.com