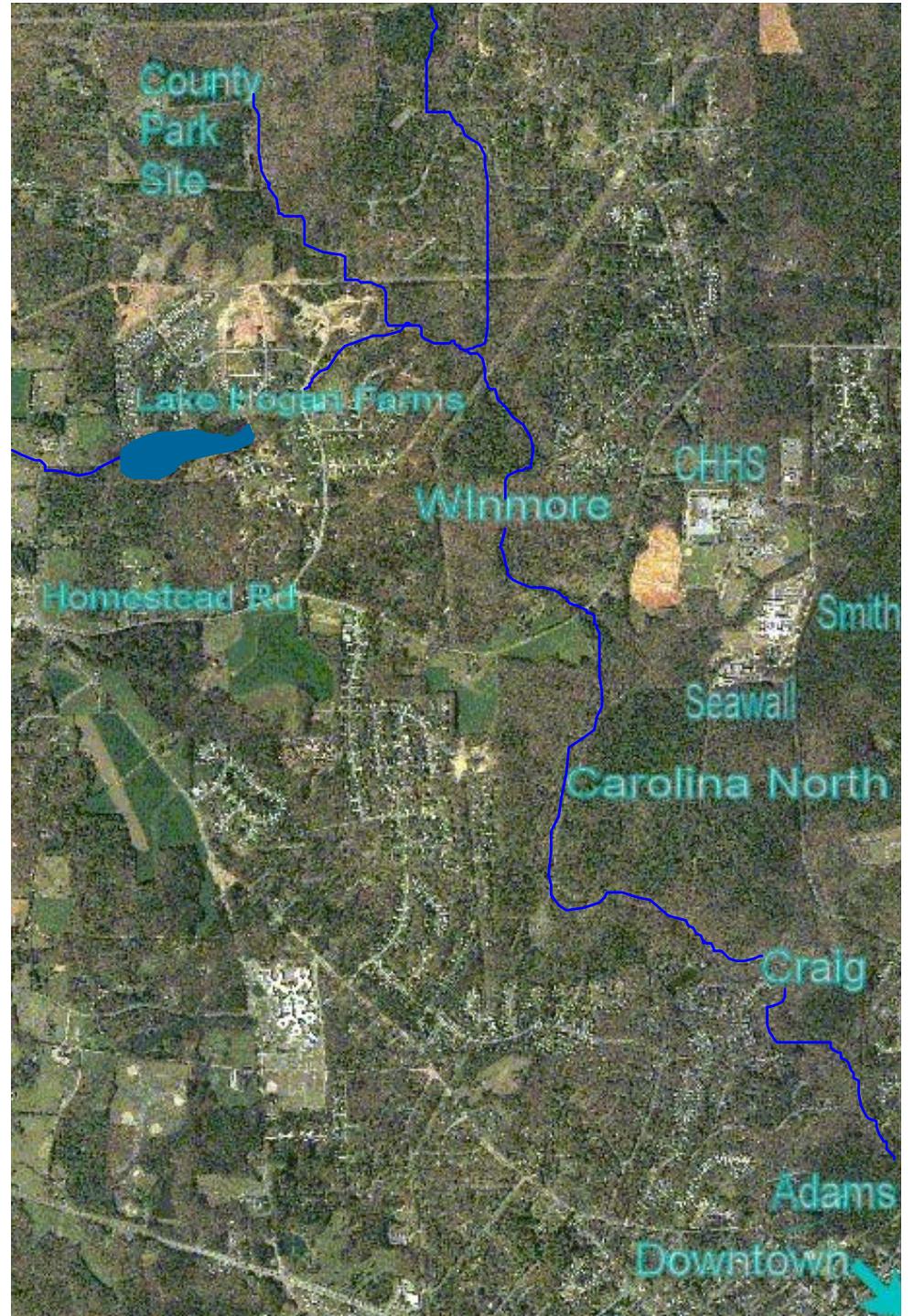


The Future of the Upper Bolin Creek Corridor

Friends of Bolin Creek, May 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.

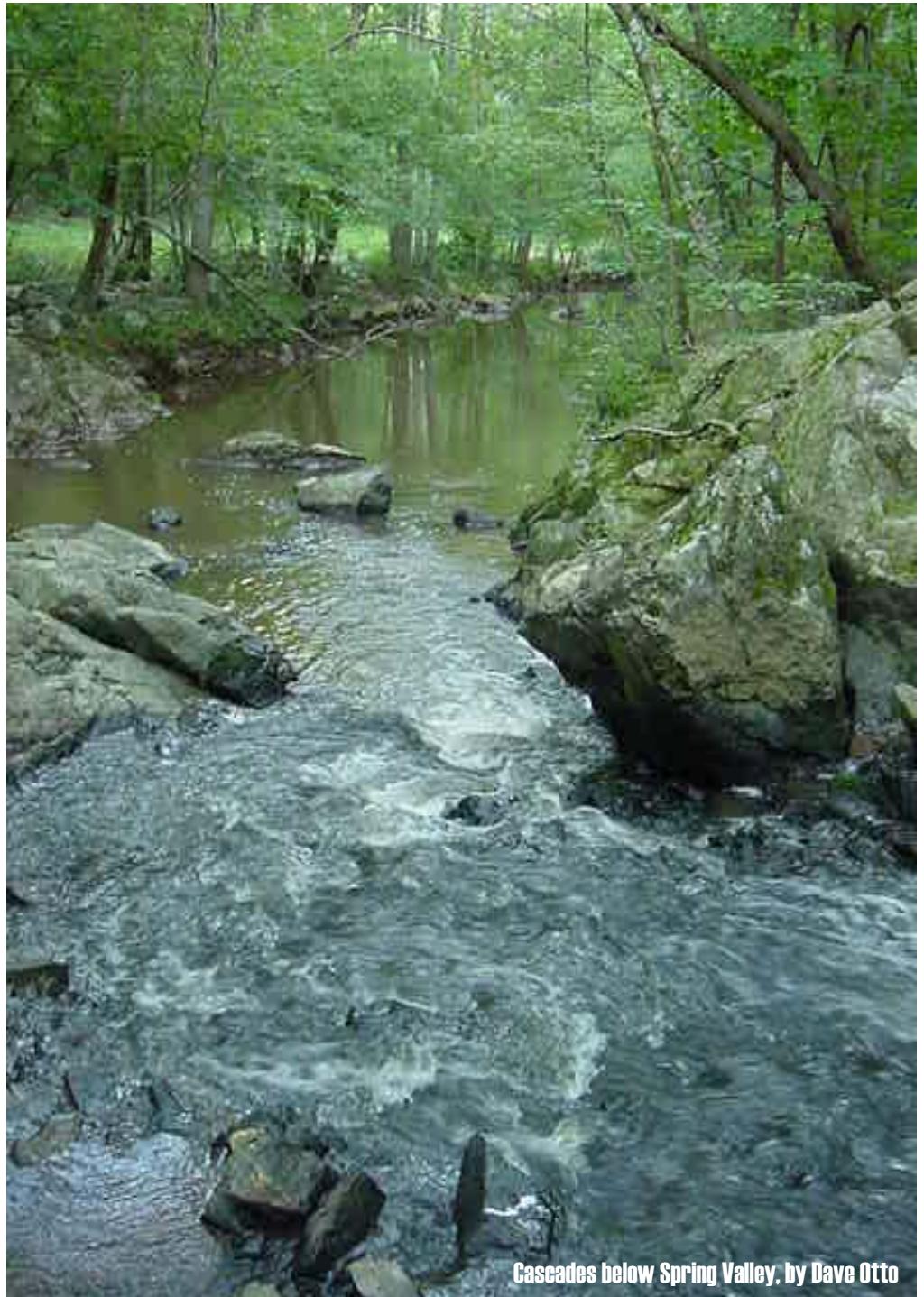
To offer support, to stay informed about the Friends of Bolin Creek and the work behind this report, or with further questions or comments, visit www.bolin creek.org, or email rcdodd@bellsouth.net.

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.

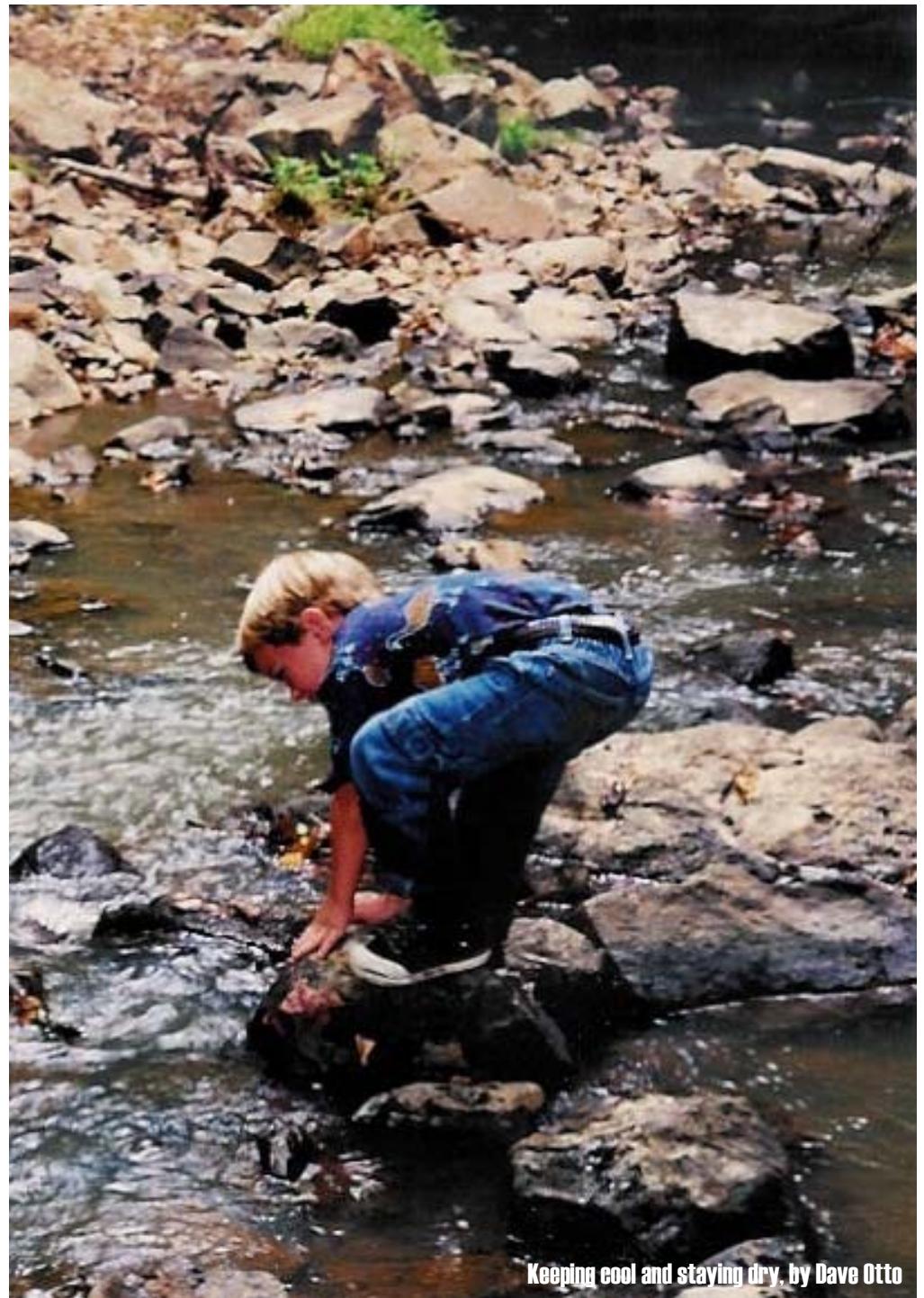


Executive Summary

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. Fortunately, 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.

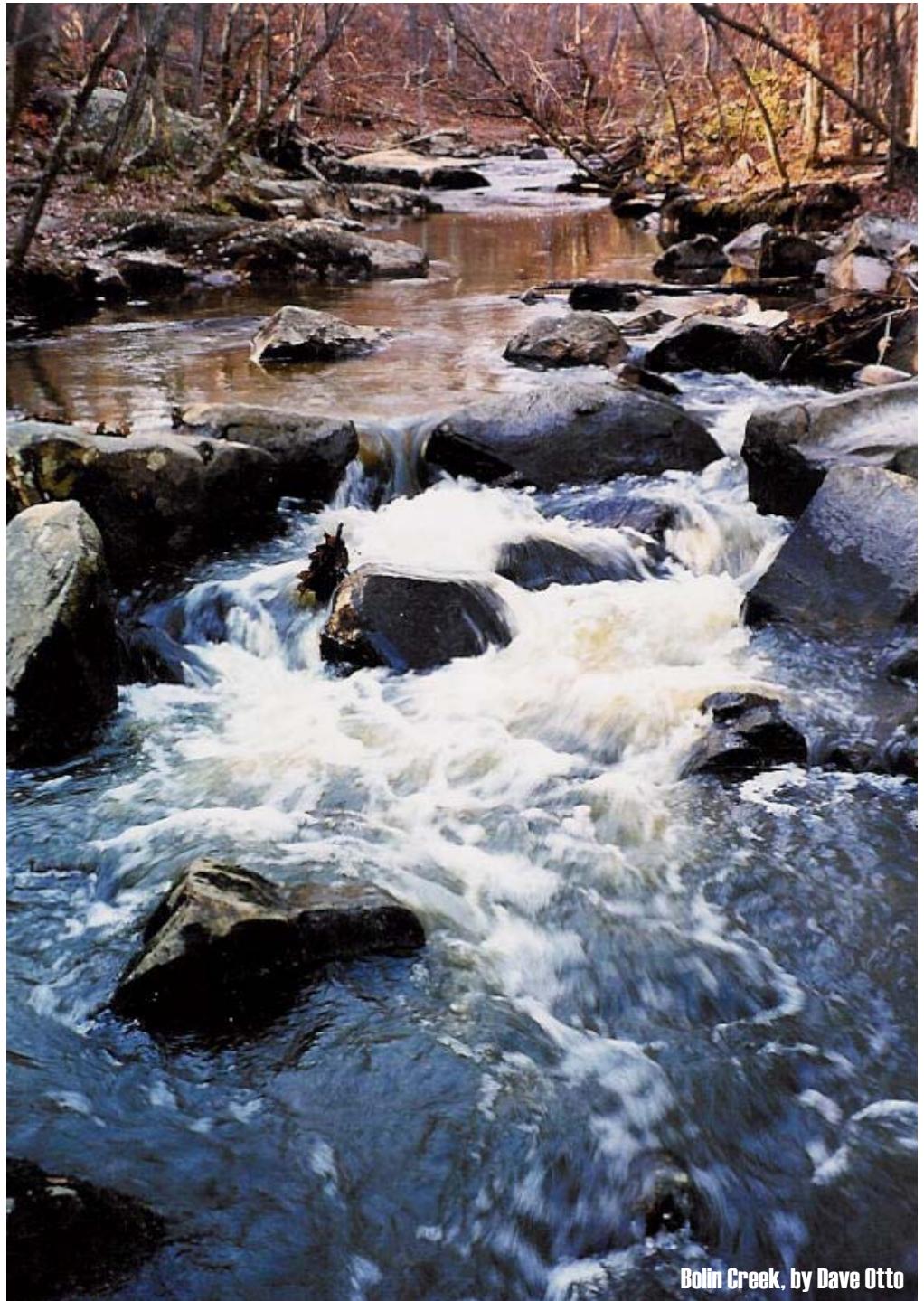


Foreword: The Friends of Bolin Creek and Our Vision

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.

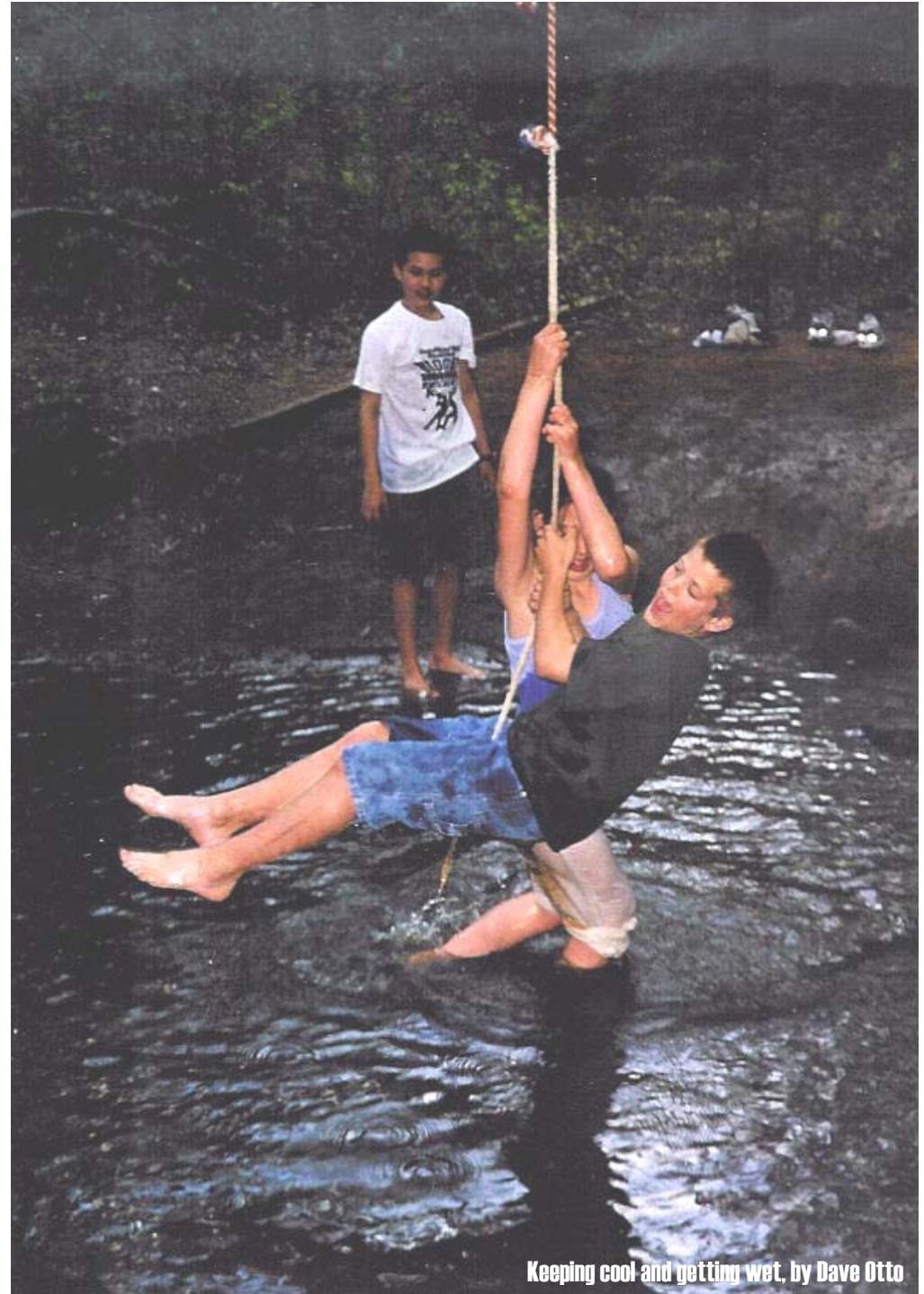
For the past two years, we have worked tirelessly in pursuit of this vision. We have sponsored meetings, hikes, and forums, met with many elected officials and government staff, attended many meetings of various boards and committees, and in general developed a grass roots network of a diverse group 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

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

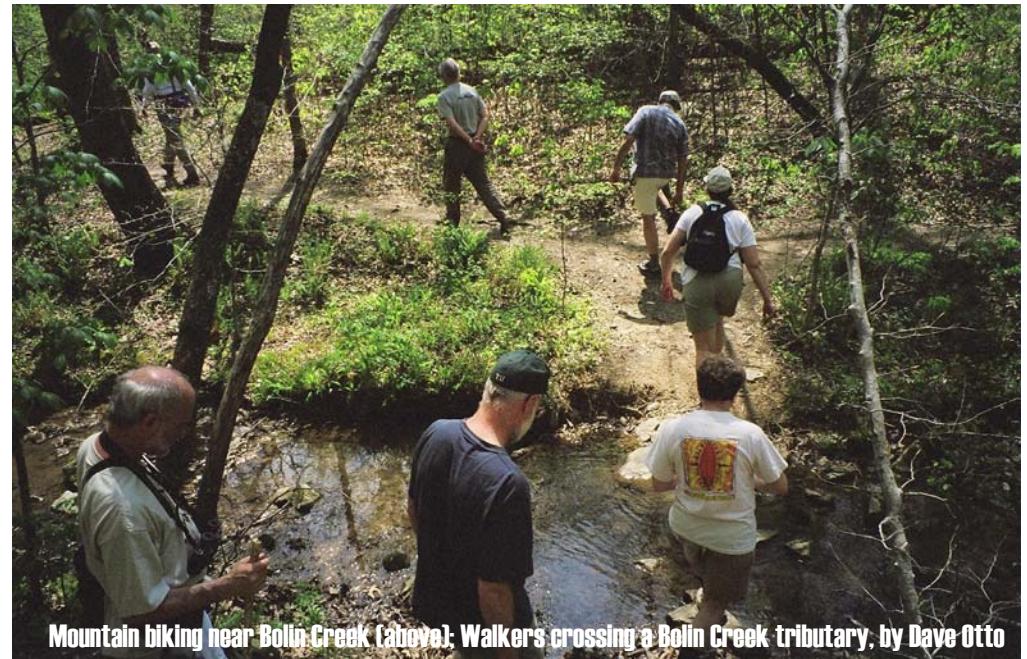
“When the countryside is far away, the city becomes a prison.”

“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.



A Treasure at Risk... (continued)

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).

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 greatest. Downstream from this point, in Chapel Hill’s



A Treasure at Risk... (continued)

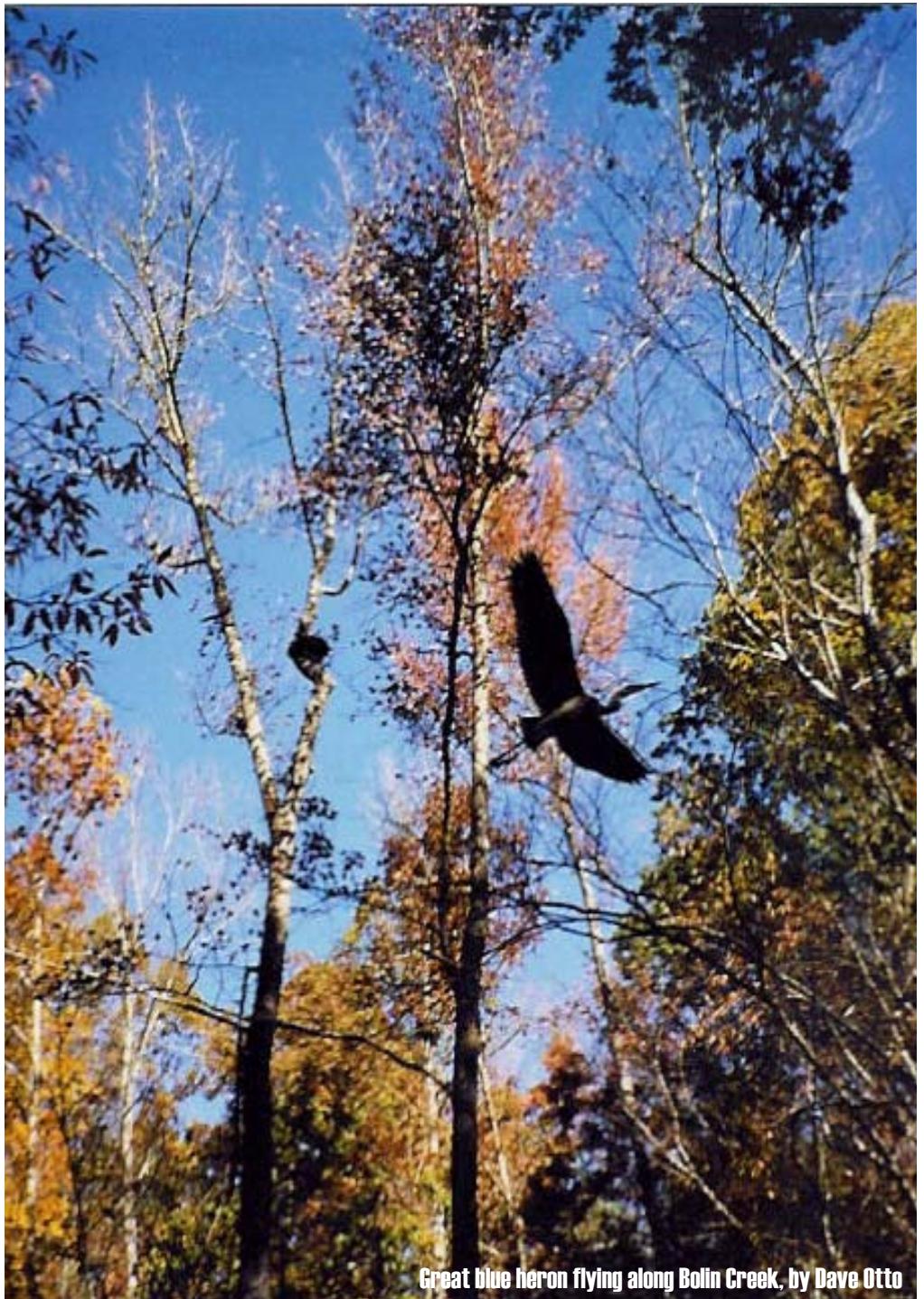
jurisdiction, the corridor is essentially “built out.” Some infill and redevelopment may occur, a greenway extension is in the planning stages, and stormwater management and water quality issues remain to be addressed. However, large-scale land conservation opportunities, the focus of this report, are 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

"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)

¹Orange 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.



Great blue heron flying along Bolin Creek, by Dave Otto

A Treasure at Risk... (continued)

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.

The main jurisdictional issue is that there are four principal entities with policy authority in the upper Bolin Creek corridor:

“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. Thirteenth 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.

