

Guided by Planning, Powered by People

A research report from the course *Creating Open Space Plans That Work*,
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Introduction

The population in the Triangle's six-county region has roughly doubled since 1970 to 1.2 million people and is expected to double again by 2030. To accommodate this increasing population, fields and forests have been converted to residential subdivisions, schools, offices, shopping centers, and roads – at a rate of some 30 square miles a year.

In response, many counties, municipalities, non-governmental organizations, and community groups have created plans for protecting open space. What is the role of these plans as tools for open space conservation?

A review of the plans and their implementation provides insight into the dynamics of open space protection in the Triangle. Although plans are an important tool for crystallizing a vision for open space protection, their most important contribution may be in fostering relationships between stakeholders during the planning process.

Our Approach

A combination of quantitative and qualitative techniques allowed us to investigate the role of plans in open space conservation at a variety of scales.

1. We evaluated the quality of all 20 open space plans in the Triangle.
2. We asked open space staff members to complete an online survey about implementation of their organization's plan, their definitions of success, and obstacles to open space protection.
3. We focused more closely on understanding how planning and implementation relate to open space protection through an in-depth study of the New Hope Creek Corridor.

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Plans Evaluated

Regional and County Plans:

Triangle Green Print
Chatham County Land Conservation and Development Plan
Durham Trails and Greenways Master Plan
Orange County Lands Legacy Program and Action Plan
Wake County Consolidated Open Space Plan

Municipal Plans:

Apex Parks, Greenways and Open Space Plan
Cary Open Space and Historic Preservation Plan
Chapel Hill Greenways Comprehensive Master Plan
Fuquay-Varina Open Space Plan
Garner Open Space and Greenway Plan
Holly Springs Open Space Master Plan
Knightdale Open Space and Greenway Plan
Morrisville Comprehensive Parks, Recreation, Greenways and Open Space Plan
Raleigh Parks Plan
Wake Forest Open Space and Greenways Plan
Zebulon and Wendell Open Space and Greenway Plan

Resource-Specific Plans:

Little River Corridor Open Space Plan
A Conservation Assessment for Neuse River and Mark's Creek
Neuse River Corridor Comprehensive Recreation Master Plan
New Hope Creek Corridor Open Space Master Plan

There are many open space plans, and much variety in plan quality

Most counties and municipalities in the Triangle now have an open space plan, with 85% of those created since 2000. However, the quality of these plans is quite mixed.

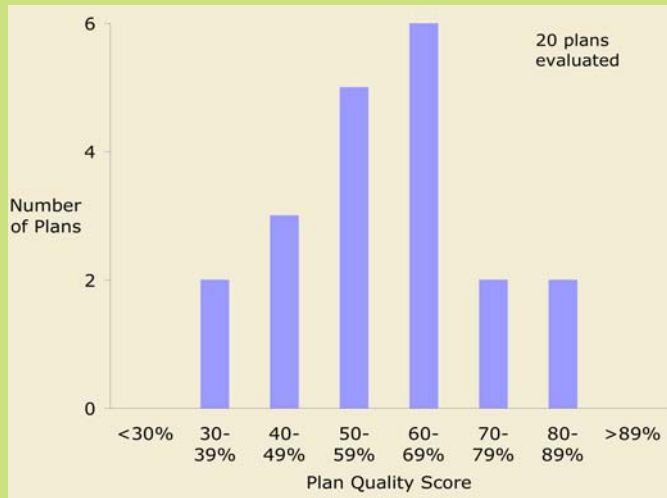


Figure 1. Distribution of open space plan quality scores. Plans were evaluated using a standard plan evaluation rubric, modified to focus on open space plans. The minimum possible score was 0%, with a possible maximum score of 100%. Scores ranged from 31% to 85%, with half the plans scoring at 61% or better.

Plan quality is unrelated to success in open space protection

Somewhat surprisingly, a statistical analysis revealed that plan quality was not related to the level of success in implementation of the open space plan or the protection of open space, as perceived by the staff implementing the plans. *In other words, having a technically excellent plan does not guarantee success in open space protection.*



Planning and Implementation

A disconnect exists between planning and implementation of the plan. Six of the 22 (27%) open space planners surveyed indicated that their open space plans were “irrelevant” or only “somewhat relevant” to open space protection (fig. 2). This may help explain why only a small minority of planners report that they follow their open space plans rigidly.

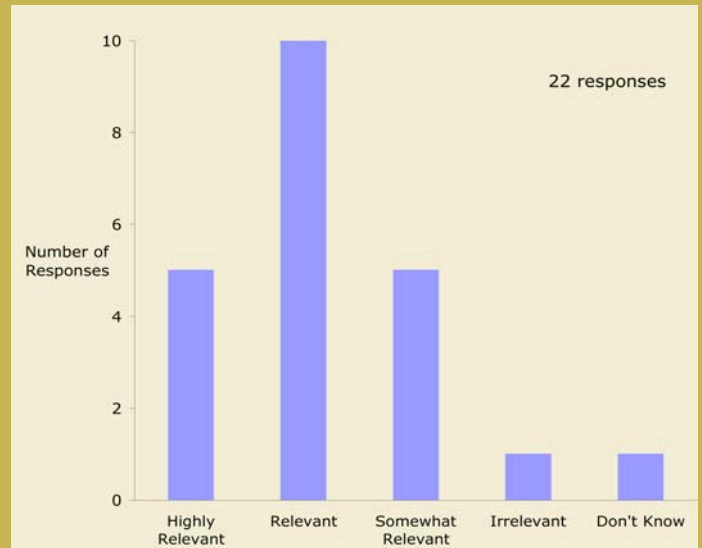


Figure 2. Relevance of plan to open space protection. Open space planners were asked, “How relevant is your open space plan to the actual protection of land in your jurisdiction or area of operation?”



Are Not Always Well Connected

Only five of the open space planners surveyed (22%) see their organizations as being “very effective” in open space protection, while a larger percentage (31%) thought they were only “somewhat effective” (fig 3). Nearly one-third of the staff surveyed did not know what percentage of open space identified in their plan has been protected (fig. 4).

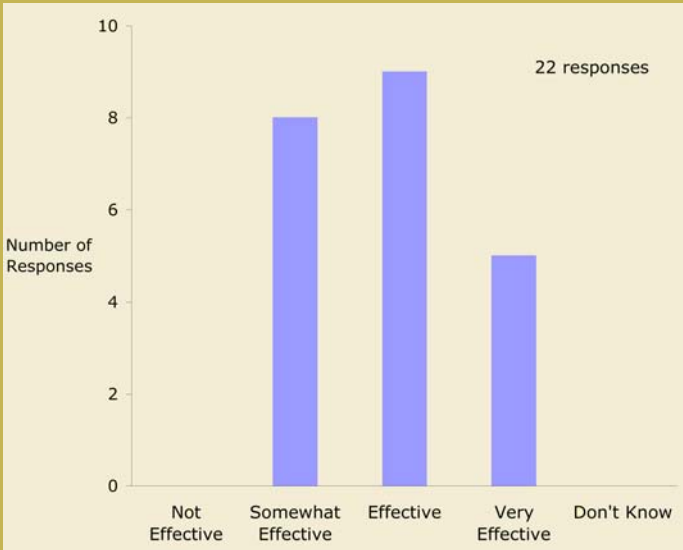


Figure 3. Effectiveness in protecting open space. Open space planners were asked, “How effective do you think your department or organization has been in protecting open space?”

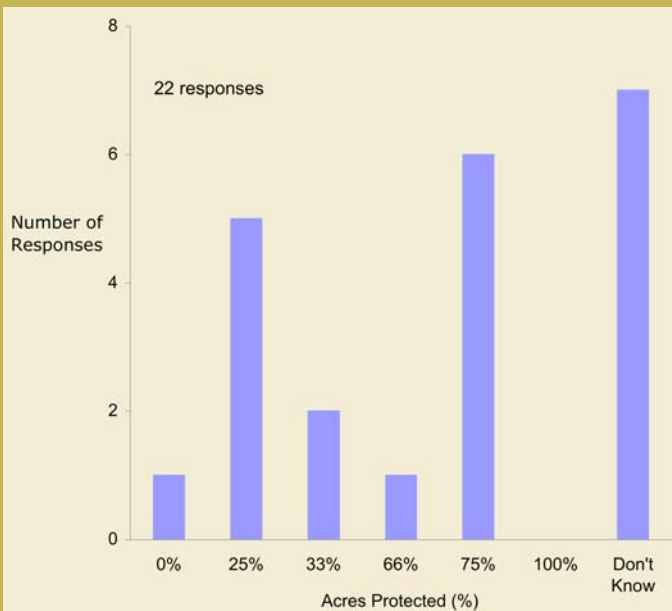


Figure 4. Amount of land protected. Open space planners were asked, “What percentage of the acres identified in your plan have been protected to date?”

Measures of success are not solidly aligned with protection goals

What planners *define* as success in open space protection does not match how they *measure* success. Planners typically define success as protecting some environmental value but most commonly measure success in terms of acres protected. Only 27% of the planners indicated that the conservation quality of protected land was used as a measure of success.

This disconnect can be problematic. For example, if the desired environmental values, such as high quality water, are not measured and monitored there is no way of knowing that the right land is being protected and no way of learning through experience.

Most Common Definitions of Success

- (number of respondents)
- Environmental protection / conservation / ecology / water quality (10)
- Land acquisition (4)
- Public support (4)

Most Common Measures of Success

- (number of respondents)
- Acres protected (14)
- Public support (12)
- Compliance with plans (7)
- Conservation quality of land protected (6)
- Funding (6)



Implementation and Stakeholder Involvement May Be Keys to Success

Plan quality was not statistically associated with effectiveness in plan implementation or effectiveness in open space protection. However, effectiveness in plan implementation was very strongly associated with effectiveness in open space protection. In other words, implementation of the plan, rather than plan quality, appears more important to the actual protection of open space.

One factor that was a consistent bellwether of success in open space protection was the level of stakeholder involvement. More involvement by a wider range of stakeholders was associated with higher levels of success in plan implementation and open space protection. The support of elected officials was also important.



Wake County Consolidated Open Space Plan

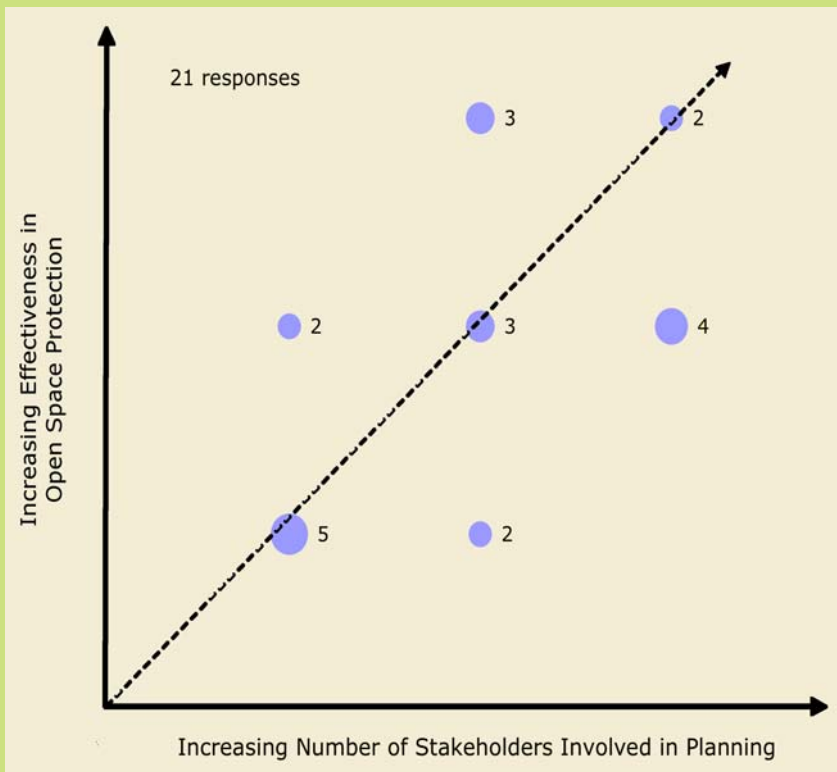


Figure 5. Higher levels of stakeholder involvement tend to lead to higher effectiveness in protecting open space. Effectiveness in this case is measured by respondents answers to the question *How effective do you think your department or organization has been in protecting open space?* Possible responses were *not effective, somewhat effective, effective, very effective, and don't know*. Stakeholder involvement during planning was measured on a *Low / Medium / High* scale.

The number next to each dot indicates the number of responses in the category. The dashed line represents an ideal relationship in which effectiveness in open space protection is linearly related to stakeholder involvement.

Similar results are derived from questions about breadth of stakeholder involvement during planning and number of stakeholders involved during implementation.

Funding may be the largest obstacle

Funding was the most commonly cited obstacle to open space protection, followed by competition with developers and staffing challenges. This differs from the findings of a previous report. In their *State of Open Space 2000*, Triangle Land Conservancy indicated that the number of land conservationists – not funding – was the factor most limiting open space protection in the Triangle.

Common obstacles to open space protection

- (number of respondents)
- Funding (12)
- Competing with development (9)
- Staffing (7)
- Public interest low (4)
- Political support low (3)
- Cost of land (3)

Taking a Closer Look: The New Hope Corridor Open Space Master Plan

Based on the findings from the plan evaluation and survey, we chose to explore the dynamics of open space protection with an in-depth case study. Our examination of the New Hope Corridor Open Space Master Plan paints a fuller picture of the relationship among planning, stakeholder involvement, implementation, and success in open space protection.

During the late 1980s, several factors elevated the visibility of New Hope Creek, which flows through Durham and Orange Counties on its path to Jordan Lake. As development pressure increased in the area, a Natural Heritage Inventory identified the creek as being biologically significant. Community leaders from four jurisdictions recognized the water quality and open space value of the area. They shepherded adoption of the New Hope Corridor Open Space Master Plan in 1991 by Chapel Hill, Durham, Durham County, and Orange County. The 20-year plan focuses on water quality protection through land acquisition as well as provision of public access along New Hope Creek and major tributaries. A major goal is to link Duke Forest to the north with Army Corps lands to the south (fig. 6).

A critical part of the plan's structure is the New Hope Creek Corridor Advisory Committee. For the past 12 years, the committee has provided a standing forum for stakeholder involvement and afforded the plan a consistent voice in policy decisions. The advisory committee (landowners and representatives from local governments and conservation organizations) meets monthly and advocates for protection of the creek through a combination of acquisition, establishment of public access areas, and suggested modifications to developments proposed in the area. This latter task has proven to be quite demanding given the rapid pace of development in the New Hope Creek watershed.

Since 1991, about 50% of the lands identified in the plan have been protected through acquisition and easement, and some public access points have been established. The plan has also been leveraged to protect parcels not identified in the plan itself. Most recently, local governments agreed to support the acquisition of a tract along Erwin Road after a successful campaign by area residents who argued the tract served the larger goals of the New Hope Creek Corridor Master Plan and that it would provide a visible access point to other protected areas. Many hope the recent publicity will translate into greater support for acquiring the remainder of land identified in the plan. Insights from this case study are presented on the next pages.

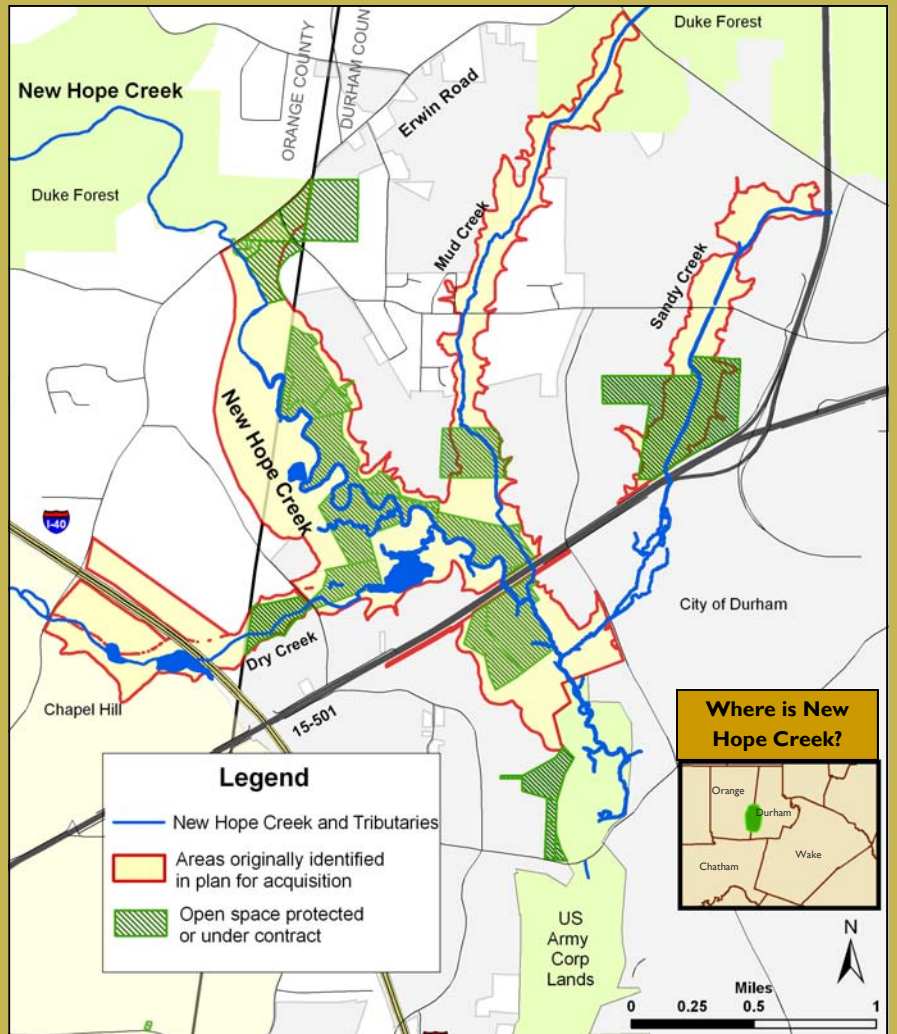
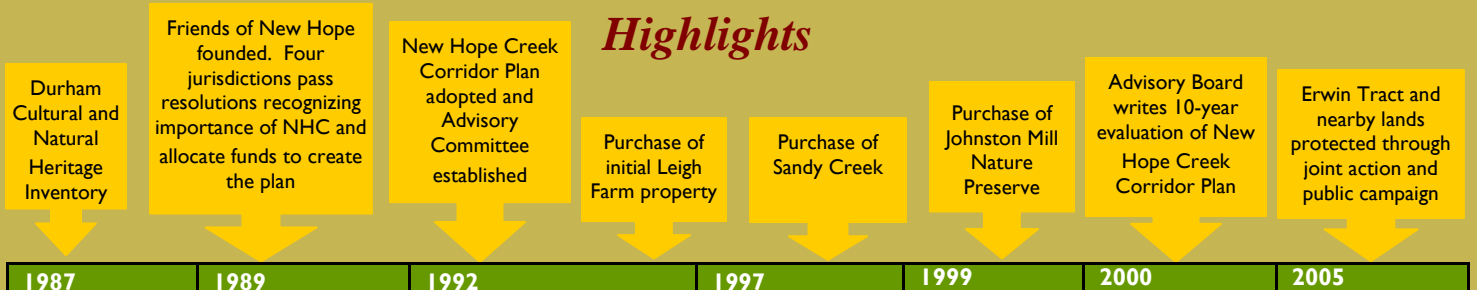


Figure 6. Illustrative map of protection along New Hope Creek since 1992.



Aligning the Stars for Open Space Protection

Our quantitative analysis suggests that even the finest plan does not guarantee a successful open space protection program unless there is stakeholder involvement and support. Combined with our case study of the New Hope Creek Corridor, our work suggests that a constellation of factors affect a community’s ability to protect open space. Each of five key factors appears to be critical to successful open space protection: having an open space plan, leadership, institutional commitment, public involvement, and flexibility.

An Open Space Plan

Open space plans can serve a variety of functions. Stakeholders involved with the New Hope Creek plan have used it to communicate their vision, galvanize support, access funding, influence adjacent development, and change Department of Transportation decisions. Fifteen years after its adoption, the plan is now part of Durham’s Unified Development Ordinance.

“You have to have someone to keep it alive.”
Ken Coulter
New Hope Creek Plan author

Key Leaders

Individuals generate much of the energy needed to move forward. Success in New Hope Creek has depended upon the commitment and passion of several key community members. These leaders help focus the essential efforts of community members, city and county planners, elected officials, and conservationists.

“Without the plan to guide us, this probably wouldn’t have happened.”
Bob Healy
Co-Chair, New Hope Creek Advisory Committee

“You must never underestimate the importance of a small piece of land and the impact it can have.”
Hildegard Ryals
New Hope Creek Advisory Committee



Institutional Commitment

The support of key institutions gives a plan legitimacy and helps gain access to financial resources. In the case of New Hope Creek, Durham County, the City of Durham, Chapel Hill and Orange County all pledged their commitment to the plan. Duke University, a major landowner in the area, and the Triangle Land Conservancy, the primary land protection organization in the Triangle, are also committed to implementing the plan.

“. . .by getting all four jurisdictions to cooperate together we could create a plan that really protected and looked at the open space in all four areas and, also, was less expensive than if any one jurisdiction were to take it on.”
Jane Korest
Durham County Open Space Division



"More people means more complexity, but also a better plan".

Rich Shaw
Director of Lands Legacy Program
Orange County



Public Involvement

Open space protection requires public commitment and a way interested people to take part in the process. For New Hope Creek, the Advisory Committee had been the locus of public participation since its inception. By creating a structure through which interested citizens can participate in the process, plans may increase likelihood of success.

"When I look at what we've accomplished on the New Hope, a lot of it is the people power".

Ellen Reckhow
Chair, Durham County
Board of Commissioners

"[The New Hope Creek Plan] was not something that the staff lead the charge on. This was citizen-driven, very much, and it is the citizens who continue to be involved in the plan...."

Jane Korest
Durham County Open Space Division

Flexibility

Opportunities and obstacles can arise that are not foreseen in a plan. Plans and implementation programs should be flexible enough to respond to unforeseen opportunities and obstacles, while remaining true to the overarching objective of open space protection. The recent acquisition along Erwin Road is an example of flexibility.

"I think the plan is a good guide...but ultimately it's what's on the ground...that will guide what happens in the future."

Rich Shaw
Director of Lands Legacy Program, Orange County

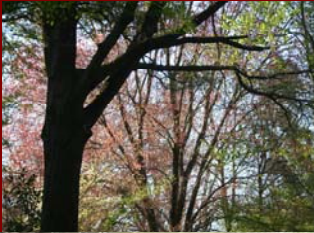
Make Relationship Building a Priority

Our analyses indicate that plan quality does not predict the level of success in open space plan implementation or open space protection. This suggests that placing too much emphasis on creating the perfect planning document may detract from other important activities related to open space protection, such as purchasing land and easements, and developing and maintaining a high level of stakeholder involvement.

The New Hope Creek case study suggests that planning for open space protection is just the beginning. *In fact, the relationships developed during the creation of the New Hope Creek plan, and strengthened by collaboration on the Advisory Board, appear to be key to ongoing open space protection.* The New Hope Creek Plan itself has served as a declaration of intent and a powerful tool to focus discussion, communicate a vision, galvanize public involvement, and secure institutional commitment. Long-term success, however, has depended on the leadership, flexibility, and continued involvement of citizens, staff, and public officials devoted to open space protection.



Bill Williams



Photos Credits

Banks Dixon, Frog Hollow Canoe and Kayak

Carla Norwood

Forest View Elementary School,
Linda Tugurian and students

Barbara Beechwood

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Methodology

Plan Evaluation

We evaluated all open space plans within the Triangle's six-county region (Chatham, Durham, Johnston, Lee, Orange, Wake) that focused on the protection of open space from a natural resources perspective. We did not evaluate plans that focused strictly on parks and recreation. We modified a standard plan evaluation matrix to focus on open space plans. Our criteria were organized into seven categories: 1) vision and organizing principles, 2) breadth and strength of implementation recommendations, 3) measurable objectives and monitoring, 4) coordination with other plans and jurisdictions, 5) degree of citizen and stakeholder participation, 6) identification of priority areas, 7) plan organization and presentation.

Each category contained several yes / no questions. Scoring was performed as follows: 1) Within each category, the number of "yes" responses was divided by the number of questions, resulting in a score from 0 to 1 for each category, 2) the scores for the categories were summed, resulting in a total score from 0 to 7, and 3) the total score was converted to a percentage scale, which is the result reported here.

Plan Implementation

We administered an online survey to the key staff member charged with implementing each the 20 open space plans within the Triangle Region. An invitation to complete the survey was sent to 24 planners (some plans span multiple jurisdictions); 22 planners returned the completed survey for a response rate of 92%. The survey consisted of Likert-style, open-ended, and descriptive questions that characterized open space protection.

Case Study

We examined the process of open space planning and implementation for the New Hope Creek Corridor Conservation Plan, adopted in 1991. Our analysis included semi-structured interviews with 11 individuals who have been very involved in the New Hope Creek Plan, including planners, elected officials and landowners. Interviews were transcribed, and a draft transcript was provided to interviewees for review. Approved transcripts were analyzed using a deductive coding methodology in Atlas/ti qualitative analysis software, highlighting statements and phrases of interest. The resulting statements were then summarized and interpreted for common themes. We also collected spatial data to compare the priority areas identified in the 1991 plan to what has been acquired through purchase or easements, and researched media coverage of the plan and its implementation.

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