



# Nature Preserves Task Force

## Report to City Council

Raleigh, North Carolina





For additional information please contact:  
City of Raleigh Parks and Recreation  
Design/Development  
[parkplan@raleighnc.gov](mailto:parkplan@raleighnc.gov)  
(919) 996-4776



## **NATURE PRESERVES TASK FORCE EXECUTIVE SUMMARY**

The Nature Preserve Task Force was formed in early 2010 in response to City Council's October 7, 2009 resolution directing City of Raleigh Parks and Recreation staff to:

- A. Develop criteria for determining which City of Raleigh parks should be classified as "Nature Parks and Preserves"
- B. Provide a list of parks that meet the criteria and are recommended for reclassification

An initial meeting with Department Administration, the Chair and Vice Chair of the Parks, Recreation and Greenway Advisory Board (PRGAB) and representatives of the WakeNature Preserves Partnership developed a strategy to address the Council charge. Discussion included amending the initial time frame (first proposed at approximately 4 months) and including opportunities for public involvement. The group agreed that an ad hoc Task Force, supported by appropriate subject matter experts as resources, would be the best approach. The six member Task Force consisted of two PRGAB members, two citizen members of the WakeNature Preserves Partnership, and two staff members from the Parks & Recreation Department. PRGAB is the citizen advisory board to City Council on parks, recreation and greenway issues. WakeNature Preserve Partnership is a non-profit organization of conservation, land management, and natural resource professionals working to identify high quality natural resources on public lands and build capacity to manage them.

Eleven monthly meetings were held between February 2010 and February 2011. The Nature Preserve Task Force (NPTF) mission was to develop a scientific foundation tempered against professional judgment to identify criteria to evaluate Raleigh's existing parks for potential reclassification as a "Nature Preserve".

After a year of iterative discussions, the group has prepared this report and unanimous recommendations for consideration by the PRGAB, the public, and City Council. The group recommends:

1. The new formal park classification be called "Nature Preserve" rather than Nature Parks and Preserves and be defined as *"entire park units that contain examples of high quality plant or animal populations, natural communities, landscapes or ecosystems, documented by subject matter experts through local or state programs, that contribute to biodiversity and environmental health. The size of a Nature Preserve should be sufficient to buffer, conserve and protect the target element or area. Efforts should be made to protect and manage significant natural resources in these areas through stewardship and best-practice management that do not degrade the resources present. Opportunities for the public enjoyment of natural resource based recreation and environmental education may be provided that are compatible with the protection and enhancement of the Nature Preserve and the nature experience"*.
2. An overlay designation called "Protected Natural Area" be adopted and added to the 2030 Comprehensive Plan. Protected Natural Area is defined as *"portions of park units that contain examples of high quality plant or animal populations, natural communities, landscapes or ecosystems, documented by subject matter experts through local or state programs, that contribute to biodiversity and environmental health. In the case of existing parks, Protected Natural Areas should be identified as part of an inventory process based on the natural resources, buffers, educational opportunities, and consistency with adopted master plans. Efforts should be made to protect and manage significant natural resources in these areas through stewardship and best-practice management that do not degrade the resources present. The designation of a Protected Natural Area should be differentiated from areas reserved for future development"*.



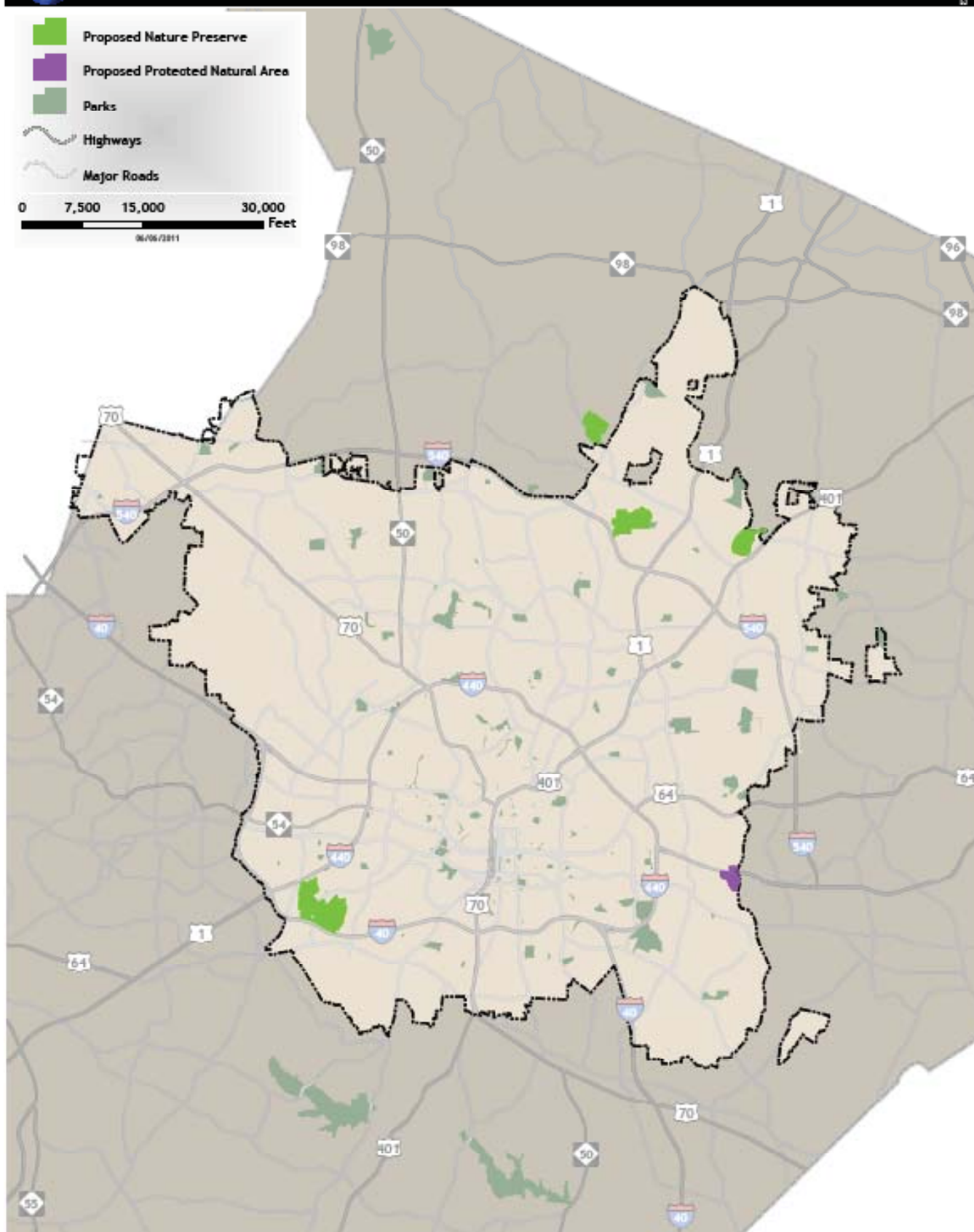
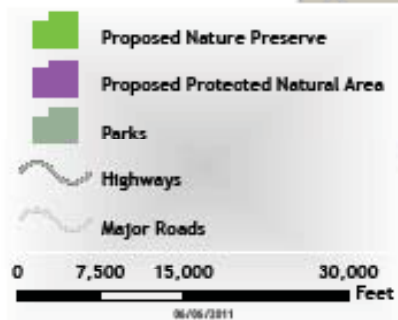
3. A set of 13 criteria identified by the Nature Preserve Task Force should be used to evaluate current and future park sites to determine if they should be (re)classified under the “Nature Preserve” park classification or designated under the “Protected Natural Area” overlay designation.
4. Park (re)classification should be a function of individual site planning (System Integration Plan and Master Planning processes).
5. The following parks should be reclassified as Nature Preserves (from current classification in parenthesis):
  - a. Annie Louise Wilkerson, M.D. Nature Preserve Park (Special)
  - b. Horseshoe Farm Park (Special)
  - c. Durant Nature Park (Metro)
  - d. Lake Johnson Park- southern portion (Metro)
6. The following park should be designated as containing Protected Natural Areas:
  - a. Anderson Point Park (Community)
7. Parks and Recreation staff will continue to evaluate additional properties according to criteria established in this Report.
8. Actions called for in this report are the responsibility of City of Raleigh staff, utilizing partnerships and other innovative approaches, as outlined in the Action statements of the 2030 Raleigh Comprehensive Plan. These statements and time frames are included in *Section VI. Managing Expectations* of this Report.

**Public process and next steps include:**

- Three public neighborhood meetings: Northeast CAC, North CAC, West CAC
- Presentation and public comment at April 28, 2011, PRGAB meeting
- Public comment taken until May 5, 2011
- Nature Preserves Task Force reviewed all comments, public and PRGAB, and incorporated comments into the Report in Appendix C
- Draft Report was provided to PRGAB for review before May 19 PRGAB meeting; PRGAB discussed and passed NPTF Report on May 19, 2011
- PRGAB will provide recommendation to City Council
- Formal presentation and Report will go to City Council at June 21 Council meeting
- Adoption by City Council
- Amending the 2030 Comprehensive Plan to incorporate these changes
- Interim management opportunities will be evaluated and implemented until site specific management plans are created
- Continued evaluation of City of Raleigh park properties against adopted criteria by appropriate internal staff and external experts including NCSU, WakeNature Preserves Partnership, NC Natural Heritage Program, NC Wildlife Resources Commission, Wake Audubon, NC Museum of Natural Sciences
- Site specific management plans will be created with input from the Recreation and Parks Divisions, neighbors, external subject matter experts, citizens, and the Adopted Master Plan



# Proposed Nature Preserves and Protected Natural Area







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## I. INTRODUCTION

### A. Raleigh Parks Plan and the Comprehensive Plan

The 2030 Raleigh Comprehensive Plan was adopted by City Council in October 2009. Prior to this action the “Park Plan” document was the Parks and Open Space Element of the City’s current Comprehensive Plan. As the 2030 Comprehensive Plan developed, a separate element titled “Parks and Open Space” addressed most major issues related to the parks and greenway system. Many items in the 2004 Park Plan were incorporated in various elements of the 2030 Comprehensive Plan including Environmental Protection, Arts and Culture, for instance. The 2030 Comprehensive Plan makes clear that a separate, more detailed Park Plan is appropriate to address the level of detail necessary in acquiring, developing, operating and maintaining a major metropolitan parks, recreation and greenway system. The level of detail in the Park Plan includes examination of the classification of parks and their attributes (size, typical elements, service radius, and level of service). The Park Plan receives overall guidance from the Comprehensive Plan. If Park Plan updates suggest changes in the Comprehensive Plan are appropriate, this can follow a specified process for review and inclusion in the City’s Comprehensive Plan.

### B. City Council Charge “Nature Parks and Preserves”

As part of the public review of the 2030 Comprehensive Plan the suggestion was made to include a formal park land classification called Nature Parks and Preserves. During a special City Council work session held on August 31, 2009 Councilor Russell Stephenson requested clarification on several park planning issues, and formally requested that Nature Parks and Preserves be added as a park classification. At the City Council meeting on September 15, 2009 Councilor Roger Koopman formally introduced a specific resolution to this effect. A copy of the minutes from September 15, 2009 that includes language of the resolution and related discussion is included in the Appendix. The definition, adopted by Council on August 31, 2009 is as follows:

*Nature Parks and Preserves are intended to be used for environmental education, scientific research, and public enjoyment in ways that do not degrade the natural resources on site. Nature Preserves contain and highlight examples of high quality plant and animal populations, natural communities, landscapes or ecosystems that contribute to biodiversity and environmental health. Efforts are made to protect and manage significant natural resources in these areas through best practice management and stewardship. Opportunities for passive, natural resource based recreation may be provided that are compatible with the protection and enhancement of the natural area and the nature experience.*

Discussion by the City Council, Mayor and City Manager concerning the September 15th resolution suggested additional public input, including the involvement of the Parks, Recreation and Greenway Advisory Board. As originally suggested in Councilor Koopman’s resolution the criteria were to be determined and a list of parks suggested by the end of the calendar year (2.5 months). Discussion further established that a different time frame was necessary to fully develop the concept, incorporate public input and bring a recommendation forward.

### C. Natural Areas and Conservation Lands in Raleigh Park System

The new definition for Nature Preserve does not add new park units to the City of Raleigh park system. Instead it changes the park unit’s classification and management. One Special Park recommended for reclassification existed as a “nature preserve” due to the deed request of the former owner (Dr. Annie Louise Wilkerson, MD). Two of the units classified as Metro Parks were described as “nature parks” by virtue of their wooded character and their adopted master plans (Durant and Lake Johnson). Horseshoe Farm was originally classified as a Community Park, and was reclassified as part of the master plan adoption to a Special Park.



The parks recommended for reclassification were evaluated against Objective Criteria, including the presence of Significant Natural Heritage Area(s) and/or Natural Heritage Element Occurrences. These criteria are established by the NC Natural Heritage Program, and further field verification has occurred as part of this Task Force process. In addition to Objective Criteria, Additional Criteria have been assembled for resource evaluation. All criteria are listed in Appendix D of this Report and were developed by Task Force consensus.

Many other parks contain significant portions that are outstanding natural resource areas and are not always recognized as such. For instance nearly one third of Buffalo Road Athletic Park (50 of 165 acres) is quality wetland with trail access and/or steep slopes. The vast majority of the Capital Area Greenway system, 3,700 acres, is protected as conservation land and located primarily in the floodplains. Most parks have smaller undisturbed areas that play an important role and function as buffers, either for streams, differing uses within the park, or around their borders with adjoining uses. At the time of this Report insufficient resources exist to allow for a full investigation of all park lands. As staff resources allow, these areas will be assessed for the presence of high quality elements.



## II. TASK FORCE

An initial meeting with Department Administration, the Chair and Vice Chair of the Parks, Recreation and Greenway Advisory Board (PRGAB) and representatives of the WakeNature Preserves Partnership was held in January 2010 to develop a strategy to address the Council charge. The attendees agreed that the Task Force would be comprised of six individuals: two from each of the following groups.

**A. WakeNature Preserve Partnership** - WakeNature's mission is to organize and provide resources to identify ecologically valuable, publicly owned open spaces within Wake County, NC, and to build capacity for appropriate management and long-term stewardship of those areas. The group consists of professionals and students who work and perform research in the fields of conservation, natural resource management and recreation.

- Dr. Toddi Steelman

WakeNature Preserves Partnership, NCSU Professor of Forestry and Environmental Resources

- Dr. George Hess

WakeNature Preserves Partnership, NCSU Associate Professor of Forestry and Environmental Resources

**B. Parks Recreation and Greenway Advisory Board** – The PRGAB serves as the official citizen advisory board to the City Council on issues of policy, funding, planning, and new park acquisition related to Raleigh's parks, recreation and greenway system. The group is made up of 15 citizens appointed by City Council who have professional experience or personal interest in parks and recreation issues.

- Shoshana Serxner

- Rebecca Oxholm

### C. Parks and Recreation Staff

- Dick Bailey, Administrator, Design Development Division

- David Shouse, Senior Planner, Design Development Division

### D. Additional Resources (non-decision making participants invited to share expertise, participate in discussions)

- Scott Pohlman, Director of Conservation Incentives, NC Natural Heritage Program

- Jacqueline Wallace, Urban Biologist, NC Wildlife Resources Commission

- Melissa Salter, Land Stewardship Coordinator, Raleigh Parks & Recreation

- Jeff Dawson, GIS Specialist, Raleigh Parks & Recreation

- Andrew Hayes, GIS Technician, Raleigh Parks & Recreation

- Janice Spadorcia, Administrative Assistant, Raleigh Parks & Recreation

- Emily Ander, Planner I, Raleigh Parks & Recreation

The Task Force agreed to meet once a month. The group began meeting in February 2010 and met eleven times.

### E. Summary of Task Force Work

During the first few meetings the Task Force extended invitations to local natural resource experts from the State Natural Heritage Program and the Wildlife Resources Commission to explain their programs and share their knowledge of significant natural communities in Raleigh. This information was incorporated into the group's discussions and assisted the Task Force in comparing and debating definitions and criteria currently used by the WakeNature Preserve Partnership, the City of Raleigh, Durham County and various land trusts, locally and nationally. These discussions led to definitions and criteria applicable to Raleigh's Park System.



## Nature Preserves Task Force Report to City Council

*Meeting discussions encompassed the following topics:*

- Nature Preserve vs. Nature Park
  - These terms are not synonymous, should they be one classification with two separate definitions or two separate classifications?
  - What are the similarities and differences between the two – allowed uses, management implications, size, and quality of natural resources?
- Working with the Public
  - Citizens may perceive nature preserves as being off limits to the public. How do we educate them about what a nature preserve is?
  - If parks are reclassified, how will this change be conveyed to the public?
- Traditional, Active Recreation vs. Environmental Education & Protection
  - How should Raleigh protect natural resources without limiting traditional, sports-oriented recreation?
  - What is the right balance between the two types of recreation?
  - We reviewed Charlotte-Mecklenburg's model to see if it would work for Raleigh.
- Criteria
  - Should the criteria be weighted to rank parks based on their natural resource value?
  - Criteria were evaluated and refined by assessing Raleigh parks based on their natural resource value.
  - There is subjectivity in GIS data.
  - NC Natural Heritage Program's GIS data for Raleigh is incomplete because all parks not yet evaluated.
  - Additional criteria that leverage professional judgment and knowledge should be allowed.
- Nature Preserve vs. Natural Area
  - What is the difference between a nature preserve and a natural area? Size? Natural resource quality?
  - Does a nature preserve have to be an entire park unit? Does it have to meet an acreage threshold?
  - How should small, special areas be managed within larger parks particularly developed parks?
  - What are the management implications of park classification versus an overlay designation?
  - What activities and elements are appropriate within Nature Preserves?
  - Can a portion of a park unit be a nature preserve?
  - Should Nature Preserves have an associated Level of Service?
  - Should the City own and manage Nature Preserves?
- Classification Process
  - Will new parkland be acquired to satisfy the Nature Preserve classification?
  - Will the criteria apply only to current parks? Will new parks be evaluated against the criteria?
  - Will undeveloped parks be evaluated differently than already established parks?
  - If parks are reclassified how will it affect the Level of Service for other park classifications?
  - Will reclassified parks need to be renamed or get new tract id signs?
- Approved Master Plans
  - How would a park reclassification affect its Master Plan?
  - Would Master Plans need to be amended to reflect appropriate uses within a Nature Preserve?



### III. CRITERIA

The initial City Council charge called for the development of criteria by which existing parks could be judged suitable for reclassification as Nature [Parks and] Preserves. The Task Force drew on criteria already established for evaluating land in Durham County and land trusts, locally and nationally. The discussion also included how criteria might complement existing park classifications in Raleigh's Comprehensive Plan (Metro, Community, Neighborhood, Special, Open Space and Greenway). Wording was carefully considered and the resulting Objective Criteria provided the opportunity for an initial evaluation of land. Preliminary use of Geographic Information System (GIS) data such as the National Wetland Inventory enabled the group to look at the entire Raleigh park system. Use of overlay data from the NC Natural Heritage Program was incorporated as well. Data from the NC Wildlife Action Plan (NC WAP) existed at the statewide level and will evolve as their resources allow. The Task Force acknowledged that as detailed data were developed for the Raleigh park system (such as field confirmation of natural resource inventories) it should be in a format that could be shared with and contribute to the NC WAP database. The group acknowledged that additional data were needed as well.

#### A. Objective Criteria

The Objective Criteria identify properties that might be Nature Preserves. The presence of features from the list of Objective Criteria does not automatically qualify a park as a Nature Preserve or a Protected Natural Area. They assist in identifying parks that should be considered further and evaluated against the Additional Criteria for possible designation as a Nature Preserve or Protected Natural Area.

##### *Environmental & Open Space Features*

1. Parcel/Park Unit contains species or natural communities that are endangered, threatened or rare as identified by the NC Natural Heritage Program as Natural Heritage Element Occurrences (NHEO).
2. Parcel/Park Unit contains existing areas or species identified by the NC Natural Heritage Program as Significant Natural Heritage Areas (SNHA).
3. Parcel/Park Unit is in close proximity to or provides connection between other properties that are currently protected.
4. Parcel/Park Unit contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.
5. Parcel/Park Unit contains hydric soils which may be indicative of wetlands and floodplains.
6. Parcel/Park Unit contains slopes near streams or rivers.

#### B. Additional Criteria

Additional Criteria are recommended to offer a larger scale, park system-wide approach to the Nature Preserve classification and Protected Natural Area designation. Planners and subject matter experts are able to contribute additional information with knowledge of adjoining or proximal property and neighborhoods. In this respect planners are also able to consider sites that may have lost significant elements but may have restoration potential.



*Environmental & Open Space Features*

7. Parcel/Park Unit contains species that are uncommon within the Raleigh parks system as identified and mapped by staff.
8. Parcel/Park Unit contains outstanding geologic characteristics, such as a cave, waterfall, cliff, granite outcrop, etc. as identified and mapped by staff.

*Stewardship & Management*

9. Expense of stewarding the Parcel/Park Unit due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost-prohibitive cleanup, or other factors outweighs the balance of benefits between designation as a Nature Preserve versus another park classification.
10. Parcel/Park Unit is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.
11. The ability to buffer or separate uses in order to allow access and/or infrastructure.
12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.
13. The Nature Preserve designation for new properties should be considered within the larger context of system-wide park planning as outlined in the Raleigh Comprehensive Plan. Designation of Protected Natural Areas should be a function of individual site planning (System Integration and Master Planning processes).

**C. Process**

Over the course of the last six months the Task Force has used the Objective Criteria to broadly review the 205 parks within Raleigh's parks system. Of those that met the Objective Criteria, only ten parks had enough data and staff knowledge to evaluate against the Additional Criteria. Ten park sites were fully vetted using both the Objective and Additional Criteria. Only five of these parks sufficiently met the criteria, qualifying them to be recommended by the Task Force as Nature Preserves or found to contain recommended Protected Natural Areas.

The Nature Preserve evaluation process should be on-going as resources allow. The remainder of the park sites that meet the Objective Criteria but have insufficient data to be evaluated with Additional Criteria will continue under established management approaches as additional data is collected. A list of sites evaluated to date is included in the Appendix E; this list will be updated and maintained by staff. Recommendations will be considered and offered as the Comprehensive Plan is reviewed and updated.

**D. Table of Nature Preserve and Protected Natural Area Criteria**



## NATURE PRESERVE AND PROTECTED NATURAL AREA CRITERIA

This table should be used to evaluate park units and parcels acquired for future parks. Each park unit/parcel should be evaluated in the larger context to the quality of the property's natural resources. Each park unit/parcel should be considered within the context of all 13 criteria.

### OBJECTIVE CRITERIA

#### Step 1: GIS Evaluation - Environmental and Open Space Features

	CRITERIA	CONSIDERATIONS	SOURCE
1	Parcel/Park Unit contains species or natural communities that are endangered, threatened or rare, identified by the NC Natural Heritage Program as Natural Heritage Element Occurrences (NHEO).	Natural Heritage Element Occurrences (NHEO) that have a status of Extant and a Priority of Medium or Higher	Natural Heritage Element Occurrences (NHEO) - NC Natural Heritage Program
2	Parcel/Park Unit contains existing areas or species identified by the NC Natural Heritage Program as Significant Natural Heritage Areas (SNHA).	All significance levels (National, State, Regional, Local Significance)	Significant Natural Heritage Areas (SNHA) - NC Natural Heritage Program
3	Parcel/Park Unit is in close proximity to or provides connection between other properties that are currently protected.	The property adjoins already protected open space or greenway corridor. Property includes land owned by City of Raleigh, Wake County, Army Corp, State, and non-profit organizations	NCCGIA - State level data for lands managed for conservation and open space
4	Parcel/Park Unit contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.	Water resources, particularly bluelines, must be field verified	NWI, FEMA, planimetric hydrology data
5	Parcel/Park Unit contains hydric soils which may be indicative of wetlands and floodplains.	Wake County Hydric Soils: AfB, AuA, CmA, CnA, CoA, CpA, EnB, EnB2, GoA, HeB, HeB2, LyA, MeA, NoA, NoB, NoB2, OrB2, OrC2, PsA, RaA, RoA, WaA, WaB, WhA, WnA, WoA, WyA, WpA.	USDA NRCS Soils Map; NRCS Hydric Soils listing ( <a href="http://soils.usda.gov/use/hydric/">http://soils.usda.gov/use/hydric/</a> )
6	Parcel/Park Unit contains slopes near streams or river.	>8% slope	Parks & Recreation GIS-based Neighborhood Park Suitability Analysis model



## ADDITIONAL CRITERIA

### Step 2: Site Visit

#### Environmental and Open Space Features

7	Parcel/Park Unit contains species that are uncommon as identified and mapped by staff.		internally collected data or data from cooperative agencies
8	Parcel/Park Unit contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop etc. as identified and mapped by staff.		internally collected data or data from cooperative agencies

#### Stewardship and Management

9	Expense of stewarding the Parcel/Park Unit due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost-prohibitive cleanup, or other factors outweighs the balance of benefits between designation as a Nature Preserve versus another park classification.	Percentage of parcel covered in invasives, Number of neighbors, Adjacent activities	orthophotographs; internally collected data; maintenance budget data
10	Parcel/Park Unit is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.	Large blocks are preferred to long, linear tracts or tracts with lots of edges Appropriate size and shape are determined by species habitat requirements.	parcel data; aerial photographs
11	The area can be sufficiently buffered.	Size of habitat and distribution of resource	

12	Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve		
13	The Nature Preserve classification for new properties should be considered within the larger context of system-wide park planning as outlined in the Raleigh Comprehensive Plan. Designation of Protected Natural Areas should be a function of individual site planning (System Integration and Master Planning processes).		Comprehensive Plan, Park Plan, Citywide Strategic Plans, Individual Site Planning



#### **IV. PARK CLASSIFICATION**

##### **A. Current Classification in the Comprehensive Plan**

The new Nature Preserve classification could affect the Level of Service (LOS: acres per thousand population) when used as a planning tool because there are no LOS requirements for Nature Preserves or other natural resource-based parkland (including greenway land and trails). For instance, changing Durant Nature Park from “Metro” to “Nature Preserve” will reduce the current acres of Metro Parks in the Raleigh park system by 241 acres. Nature Preserves will meet the definition and intent of the Metro Parks park classification by virtue of their size and character or theme. For this reason the Parks and Recreation staff recommends that Nature Preserves be included in the LOS for Metro Parks. (The LOS for Metro Parks is 4.2 acres per thousand people at this time.)

##### **B. Classification in the Park Search and Acquisition Process**

As sites are identified and recommended for acquisition to satisfy a particular Search Area need they are identified as meeting a need for neighborhood, community or other classification. Some sites present an opportunity (gift, partnerships, etc.) and are accepted for acquisition irrespective of a Search Area. In any case a site should be evaluated against the criteria contained here before they are designated as a Nature Preserve. Other options include the Special park classification with stipulations for maintaining vegetative cover, for instance.



## **V. RECOMMENDATIONS**

The Nature Preserve Task Force recommendations go beyond the initial request by City Council to create a list of criteria and recommend parks for reclassification to encompass renaming and defining the new park classification, adding and defining an overlay designation, incorporating new terms in the 2030 Comprehensive Plan glossary and suggesting parks for inclusion of Protected Natural Areas.

### **A. New Park & Overlay Classification Definitions**

*“Nature Preserve” park classification: Nature Preserves are entire park units that contain examples of high quality plant or animal populations, natural communities, landscapes or ecosystems, documented by subject matter experts through local or state programs that contribute to biodiversity and environmental health. The size of a Nature Preserve should be sufficient to buffer, conserve and protect the target element or area. Efforts should be made to protect and manage significant natural resources in these areas through stewardship and best-practice management that do not degrade the resources present. Opportunities for the public enjoyment of natural resource based recreation and environmental education may be provided that are compatible with the protection and enhancement of the Nature Preserve and the nature experience.*

*“Protected Natural Area” overlay designation: Protected Natural Areas are portions of park units that contain examples of high quality plant or animal populations, natural communities, landscapes or ecosystems, documented by subject matter experts through local or state programs that contribute to biodiversity and environmental health. In the case of existing parks, Protected Natural Areas should be identified as part of an inventory process based on the natural resources, buffers, educational opportunities, and consistency with adopted master plans. Efforts should be made to protect and manage significant natural resources in these areas through stewardship and best-practice management that do not degrade the resources present. The designation of a Protected Natural Area should be differentiated from areas reserved for future development. The major difference between the two definitions is that Nature Preserve encompasses the entire park unit while Protected Natural Area is limited to a portion of the larger park unit. There is no distinction between the amount and quality of management given to a Protected Natural Area versus a Nature Preserve.*

### **B. Raleigh Nature Preserve Park Classification**

The Nature Preserves Task Force recommends the Raleigh parks listed below to be reclassified from their current park classification (in parenthesis) to the new ‘Nature Preserves’ classification. The list is not comprehensive. Most parks within Raleigh’s Parks System have not been evaluated in detail by internal staff or subject-matter external experts to know if they meet the Criteria. As these assessments take place staff will recommend parks that do meet the Criteria for classification as Nature Preserves and the decision-making process will follow as described in Section IV. New parks will be classified via the System Integration Plan (SIP) process.

- *Horseshoe Farm Park (Special)*
- *Annie Louise Wilkerson, MD Nature Preserve Park (Special)*
- *Durant Nature Park (Metro)*
- *Lake Johnson Park – southern portion (Metro)*

### **C. Raleigh Parks Designated Protected Natural Area Overlays**

The Nature Preserves Task Force recommends the following Raleigh park worthy of a Protected Natural Area Overlay designation. The size of natural area overlays will be dictated by the range and location of the special community which merits the designation.

- *Anderson Point Park (Community)*



## **VI. MANAGING EXPECTATIONS**

The Task Force suggests that realistic expectations should be agreed upon with the implementation of these recommendations. This includes changes that might be expected, when they might be expected, and at what cost should be realistic and manageable. For instance drafting, reviewing and implementing management plans will need to take into account numerous factors like organization, education and training of Parks and Recreation Division staff, reprioritization of staff workplan action items, the resources available, and opportunities for partnership.

### **A. Public Access**

Nature Preserves and Protected Natural Areas are intended for public use and enjoyment. Access should be managed, and in some cases, some degree of restriction of activities that are inappropriate to either the resource or the use of the resource may be necessary. This should be clearly outlined in individual management plans and should address both facility development and use. For instance, trail surfaces, widths and use of the trails should be included in the management plan in such a manner that agency and visitors are clear about what is deemed appropriate.

### **B. Time Frame for Implementation**

Reclassifying existing parks may bring immediate expectations of change, either in physical form, “on the ground”, or in rules and regulations. In the short term little or no change may be obvious since resource inventory is not complete on the subject park units. Development of management plans will take time and may consider changes in both the physical elements of a site, such as relocating trails, as well as changing user behavior, such as limiting access to a sensitive area. Development of management plans will take time with limited staff and technical resources, as will making changes in current or new management practices. Opportunities for partnerships exist with the WakeNature Preserve Partnership, North Carolina State University, the NC Museum of Natural Sciences, the NC Wildlife Resources Commission, and the NC Natural Heritage Program and should be explored.

### **C. Departmental Organization and Funding**

Raleigh Parks and Recreation will need to consider potential impacts on current organization of personnel and equipment resources. Undeveloped park sites have no on-site staff presence; the timing for additional new staff or reorganized responsibilities will be a budget consideration. Most on-site maintenance activities such as vegetation management currently are under the responsibility of the Parks Division. The Department does little in the form of wildlife management at the current time. Environmental Education is almost entirely the responsibility of the Nature Program in the Recreation Division. A strategic approach to funding for staff, natural resource management training and equipment resources is recommended over a period of the next several years.

### **D. Comprehensive Plan Correlation**

Public input associated with the development of the 2030 Raleigh Comprehensive Plan clearly supported a conservation approach to some public lands. A number of policy statements in *Element C: Environmental Protection* and *Element H: Parks, Recreation and Open Space* generated specific Action statements. The work of the Nature Preserve Task Force addresses, in some fashion, parts of the following Actions:

#### **1. Element H: Parks, Recreation and Open Space**

*PR 5.4 Identifying Conservation Lands* – Identify lands that can be conserved and managed for their outstanding natural features, landscapes and assets, and cultural heritage values as part of a system of open spaces and green infrastructure. (mid-term 3-5 years)



*PR 6.3 System Integration Plan Implementation* – Implement System Integration Plans for all newly acquired properties and for undeveloped park sites and key areas of underdeveloped sites as staff and agency resources allow. (on-going)

*PR 6.5 Awareness of Natural Resource Areas* – Implement strategies through traditional methods and emerging technologies to increase public awareness of natural resource areas within the Raleigh Parks system and adjoining communities. (on-going)

*PR 6.6 Stewardship Capacity* – Provide an assessment of additional staffing and related resources necessary to provide for the appropriate level of management and stewardship of the City's growing inventory of parks and open spaces. Incorporate this assessment into the budget process. (mid-term)

## 2. Element C: Environmental Protection

*EP 2.1 Green Infrastructure Plan* – Complete a ...Plan that includes a natural heritage inventory, to define a program for protecting, conserving and stewarding Raleigh's natural resources, wetlands, water bodies, urban forests, landscapes, priority wildlife habitats, and important natural features....Work with the Environmental Advisory Board and similar citizen committees as appropriate. Incorporate the spatial principles of landscape ecology in the planning effort. (mid-term)

*EP 5.2 Urban Forestry Plan* – Work with local arboricultural institutions and agencies to prepare a detailed Urban Forest Plan that outlines how to implement treescape improvements and enhancements throughout the community....(mid-term)

*EP 6.1 Habitat Study Plan* – Formulate a ...plan to define, map, protect, and restore Raleigh's native and priority habitats, particularly those identified in the NC Wildlife Action Plan. The Plan should establish a program of action for protecting and enhancing wildlife habitats and preserving biodiversity through a range of strategies including land acquisition, park and greenway conservation and interpretation,... (long-term 6-10 years)

*EP 6.3 Invasive Species Control* – Develop a program to increase awareness of, contain, and possible eradicate the problem of invasive plants and insects. (long-term)



## **Appendix A**

City of Raleigh

Nature Preserves Task Force Report

City Council Action



## A. City Council Official Actions

### Excerpt from City Council Minutes

The City Council of the City of Raleigh met in regular session at 1:00 p.m. on Wednesday, **October 7, 2009**, in the City Council Chamber of the Raleigh Municipal Building, Avery C. Upchurch Government Complex, 222 W. Hargett Street, Raleigh, North Carolina, with the following present.

Mayor Charles C. Meeker, presiding  
Mayor Pro-Tem James P. West  
Councilor Mary-Ann Baldwin  
Councilor Thomas G. Crowder  
Councilor Philip R. Isley  
Councilor Rodger Koopman  
Councilor Nancy McFarlane  
Councilor Russ Stephenson

Mayor Meeker called the meeting to order and invocation was rendered by Reverend Jim Hodge, Saint Giles Presbyterian Church. The Pledge of Allegiance was led by Councilor Rodger Koopman. The following items were discussed with action taken as shown.

### **SPECIAL ITEMS**

#### **PARKS RESOLUTION – RESOLUTION CREATING PARK CLASSIFICATION FOR NATURE PARKS AND PRESERVES – APPROVED AS AMENDED – OTHER ITEMS REFERRED TO PLANNING DEPARTMENT**

During the September 15, 2009, Council meeting, Councilor Koopman presented a proposed “Resolution Creating a Park Classification for Nature Parks and Preserves in the City’s 2030 Comprehensive Plan” (Resolution 1) and a proposed resolution “Clarifying Council’s approval of Parks Plan Re-examination and Update”. (Resolution 2) Copies of the two proposed resolutions were in the agenda packet. It was directed that the two resolutions be referred to the Planning Staff and to place the item on this agenda to receive comments. A report was in the agenda packet.

Mayor Meeker pointed out on the first resolution it looks as if there is no problems with Items 1 and 2 but there should be a different schedule or develop a schedule or work through a process for #3. The first resolution read as follows:

Whereas the City of Raleigh’s 2030 Comprehensive Plan seeks to promote environmental stewardship and health as well as respond to public interest in recreating in natural areas and protection of open space; and

Whereas, the August 31, 2009 City Council special meeting minutes are unclear about the Council’s intent regarding the creation of a formal park classification for “Nature Parks and Preserves’ in Element F: Parks, Recreation and Open Space of the final Comprehensive Plan; and

Whereas, Council wishes to clarify for the record its intentions regarding this matter.



Now therefore, be it resolved that,

1. The Raleigh City Council resolves a formal park classification called "Nature Parks and Preserves" to be included in Element F: Parks, Recreation and Open Space of the 2030 Comprehensive Plan, along with the associated definition adopted by Council on Aug. 31, 2009. This category shall be on par with and in addition to other park classifications, such as Neighborhood, Community, Special and Metro Parks.
2. To avoid confusion with existing language in the draft Comprehensive Plan, the Raleigh City Council further resolves that the sub-class of "Preserves" should be removed from the text box on page 170, and the new formal classification and definition of "Nature Parks and Preserves" should be added to section F.3 on page 169 and Table PR-1 on page 170.
3. The Raleigh City Council directs that Parks Department staff work with the WakeNature Preserves Partnership as soon as possible and before the end of calendar year 2009 to develop and propose:
  - a. Criteria for determining which City of Raleigh parks should be classified as "Nature Parks and Preserves" and
  - b. A list of parks and open spaces that meet these criteria and are recommended for this classification.

Mayor Meeker stated he believes the Park Staff report agrees with the first two items in the resolution but requests a different schedule and involvement of the Parks Board on Item #3. He stated the recommendation of the Planning Commission is a little more detailed. City Manager Allen indicated the first two relates to making changes in the Comprehensive Plan and we would review the schedule, involve and receive recommendations and suggest the Parks Board be included in the review as well as a public process. There would be additional comments and involvement of the Parks Board. Mr. Stephenson pointed out he understands there is a county wide group which has been working on this and it seems they would be the ones to do the leg work, etc. and bring it to the Parks Board for review and recommendation to the City Council. City Manager Allen pointed out we are talking about an open process not only the group that identifies themselves as the experts but any group or individual could weigh in and then the staff would run it through the normal process and then put together a public process so anyone could weigh in. Mr. Stephenson stated he just wants to make sure we are not putting the total burden on the Parks Board with the City Manager pointing out we would follow the normal process.

City Manager Allen pointed out the second resolution relates to the Comprehensive Plan, the timing, scope of work, etc. He stated we really don't think the resolution is necessary as any update etc., would have to be approved by the City Council. There is nothing in the current budget and nothing to indicate that a plan update would be coming forward at this point. It would have to get appropriated in next year's budget and looking at the funding and budget proposals it is not likely that it would be moved up in the funding process unless the Council takes additional action. He pointed out staff tried to indicate we should look at this in a comprehensive way, not just a specific survey, they were trying to clarify the confusion. He just doesn't think the second resolution is necessary as any update and scope of an update would have to be approved by Council and that seems to be a ways off. Mr. Stephenson referred to the September 18 memo and referred to Page 185 of the Comp Plan and read a statement which indicates "the 2004 Raleigh Parks Plan is scheduled for re-examination and update in 2009" and indicated that probably should be deleted if there is no funding available. On Page 187 there is a paragraph that includes the words "Metro Parks includes the City's nature parks. . .". He stated if we have a new classification then that statement doesn't belong in the plan. On Page 188 the box is entitled "Natu-



ral areas” but the text talks about “conservation area” to include subclasses, nature parks and preserves and questioned the conflict in the title “Natural areas” and conservation areas or nature parks. Mayor Meeker suggested asking the Planning Staff to look into those three issues.

Mayor Meeker stated as he understands, the motion that needs to be made is approval of Resolution-1 with the wording under sections 1 and 2 and that section 3 be amended to add additional times and park board involvement and that Resolution-2 would not be adopted. Mr. Koopman moved approval as outlined by the Mayor. His motion was seconded by Mayor Meeker and put to a vote which passed unanimously. The Mayor ruled the motion adopted on an 8-0 vote. See Resolution 996.



## **Excerpt from City Council Minutes**

The City Council of the City of Raleigh met in regular session at 1:00 p.m. on **Tuesday, June 21, 2011**, in the City Council Chamber of the Raleigh Municipal Building, Avery C. Upchurch Government Complex, 222 W. Hargett Street, Raleigh, North Carolina, with the following present.

Mayor Charles C. Meeker, Presiding  
Mayor Pro Tem Nancy McFarlane  
Councilor Mary-Ann Baldwin  
Councilor Thomas G. Crowder  
Councilor Bonner Gaylord  
Councilor Nancy McFarlane  
Councilor John Odom  
Councilor Russ Stephenson  
Councilor Eugene Weeks

Mayor Meeker called the meeting to order and invocation was rendered by Council Member Weeks. The Pledge of Allegiance was led by Council Member Crowder. The following items were discussed with action taken as shown.

### **REPORT AND RECOMMENDATION OF THE PARKS, RECREATION AND GREENWAY ADVISORY BOARD**

#### **NATURE PRESERVE TASK FORCE (NPTF) REPORT – RECEIVED; COMPREHENSIVE PLAN AMENDMENT PROCESS TO BE PLACED ON THE JULY 5, 2011 COUNCIL AGENDA AS A SPECIAL ITEM**

The City Council added "Nature Parks and Preserves" to Element F of the 2030 Comprehensive Plan and charged the Parks and Recreation Department to work with the Wake Nature Preserve Partnership to (1) develop criteria to determine which parks should be [re]classified and (2) develop a list of parks and open spaces to recommend for this classification.

The Nature Preserve Task Force collaborated to develop and test criteria and recommendations, solicit public input and compose a Final Report. A short presentation will be made to Council. A summary memo and the Final Report were included in the backup material.

#### **Recommendation:**

- a. Accept the NPTF Report and direct staff to incorporate into the Raleigh Comprehensive Plan the following, as outlined in the Report:
  1. The definition of "Nature Preserve."
  2. The definition of "Protected Natural Area."
- b. Accept the criteria developed by the NPTF as outlined in the report.
- c. Classify the following parks as Nature Preserves:
  1. Lake Johnson Park (southern portion)
  2. Annie Louise Wilkerson, MD, Nature Preserve Park



3. Horseshoe Farm Park
4. Durant Nature Park.

Mark Turner, Vice Chair of the Parks, Recreation and Greenway Advisory Board (PRGAB), presented this item as outlined above. The Nature Preserve Task Force is composed of six members: two from the PRGAB, two from the Wake Nature Preserve Partnership, and two Parks and Recreation Department staff members. Their report and recommendations have been shared publicly, reviewed by outside experts, and endorsed by groups such as the Wake Audubon Society and the North Carolina Department of Environment and Natural Resources. Mr. Turner introduced Dr. Toddi Steelman, faculty member at North Carolina State University, and Melissa Salter, Land Stewardship Coordinator with the City's Parks and Recreation Department.

Mr. Crowder asked if the Friends of Lake Johnson had provided input for this report, and Mr. Turner said they had.

Dr. Toddi Steelman, Chair of the Nature Preserve Task Force (NPTF) and Co-Chair of the Wake Nature Preserve Partnership, talked about the criteria developed by the NPTF and their classification process. The three main points of their definitions are (1) high quality natural resources; (2) stewardship and best management practices; and (3) public use compatible with natural resource protection. Public access will not be restricted in nature preserve areas. The nature preserve areas will be treated like any other managed public parks. When management plans and stewardship plans are developed, they may reroute around sensitive species or habitats, but there will be no restrictions to public access. A major change made by the NPTF was to change the designation from "Nature Parks and Preserves" to "Nature Preserves" because they felt the former designation was a bit confusing. Nature Preserve will be a new park classification and the same definition applies to an overlay designation called Protected Natural Area. The only difference in how the definition is applied is in the scope and scale of the property in question; a Nature Preserve is larger in scale and scope. As part of the process in developing the new definitions and criteria, the NPTF identified scientifically-based criteria and tempered those with the pragmatic experience and judgment of people who are knowledgeable in these things. The NPTF reviewed all properties currently under City of Raleigh management and chose the four suggestions listed above. Dr. Steelman said all 13 criteria do not have to be met for designation. It is a combination of evaluating the scientific criteria against professional judgment of the people assembled to make these decisions.

Land Stewardship Coordinator Melissa Salter said she would use Lake Johnson to demonstrate the criteria. The first six criteria can be applied in an office setting, using existing data and maps. Staff makes a field visit to ensure the data is accurate, then applies the additional criteria for further consideration of things like cost and manageability. Ms. Salter explained the criteria as follows:

1. Review and confirm the presence of an element occurrence – rare or endangered species, special wildlife habitats, or unique ecosystems.
2. Look for Significant Natural Heritage Areas – identified by the NC Natural Heritage Program as important for conservation of biodiversity in North Carolina.
3. Connectivity – it is important for natural areas to be connected as it gives them more ecological value.
4. Water features in the landscape – wetlands, lakes, ponds, perennial stream systems, or flood plains.
5. Hydric soils – may be indicative of wetlands and floodplains.
6. Significant slopes greater than 8% near streams or river.

Ms. Salter noted that criteria 5 and 6 are mapping tools to help identify areas that should be looked at more closely.



7. Uncommon species – inventoried and mapped by staff with help from experts.
8. Outstanding geologic characteristics – cave, waterfall, cliffs, granite outcrop, etc.
9. Conservation cost/benefit analysis – issues such as multiple owners, trespassing concerns, irreparable contamination, invasive plants, or cost-prohibitive clean-up may outweigh the balance of benefits of designation as a Nature Preserve.
10. Parcel size and shape – a large block of land has more value than a linear parcel of land such as a greenway.
11. Sufficient buffering.
12. Compatibility of existing use or condition.
13. Park planning – need to consider the Nature Preserve classification within the larger context of system-wide park planning and the Comprehensive Plan.

Dr. Steelman said the NPTF is requesting that Council approve the criteria developed by the Task Force, classify the four parks above as Nature Preserves, and classify Anderson Point Park as a Protected Natural Area. These five parks meet the criteria developed by the NPTF. Dr. Steelman said the next steps are to continue the ongoing inventory, continue evaluation of other parks, implement interim management with limited stewardship resources, and develop long-term individual management plans.

Mr. Crowder said he understands that because of development and lack of buffer on the northeastern portion of Lake Johnson it is included in the Nature Preserve designation, but asked why portions of the northwestern section where there is significant buffer were not included in order to prevent further encroachment toward the lake and that water quality. Dr. Steelman said she thinks the creek through the park created a useful ecological dividing line between the northern and southern sections of the park. Most of the criteria occur on the southern portion of park. She said they were also sensitive to the fact that a lot of active recreation takes place in this park and they did not want to crowd that out. Mr. Crowder commented that the community at large is protective of that area because of its panoramic views.

Mr. Odom said he would like to hold this item for two weeks because 75% of this proposal is in District B and he would like to hear more from the general public. He would also like to know what effect it will have on the availability of active parks. Mr. Crowder supported Mr. Odom's request; Ms. Baldwin and Mr. Weeks wanted to move forward and not hold up the process.

Planning Director Silver pointed out that incorporating this report into the Comprehensive Plan requires an official Comprehensive Plan which entails further staff analysis of the request and public hearings. Staff will look at the underlying zoning, find out if this is a stand-alone district or an overlay, find out what the existing environmental regulations are, etc. Once Council accepts the report, it is not automatically incorporated into the Comprehensive Plan; there is a separate process for that.

Mayor Meeker stated the public hearing is part of the Comprehensive Plan process. He suggested waiting a couple of weeks so people can get answers to their questions. The Council can conduct its initial vote in two weeks, and the Planning Department can provide a short memorandum describing the Comprehensive Plan amendment process. Without objection, Mayor Meeker announced this would be placed on the July 5 Council agenda as a Special Item.

Dr. Steelman said as a citizen volunteer, she would like to publicly acknowledge what a pleasure it has been to work with Parks and Recreation staff and the Parks, Recreation and Greenway Advisory Board on this project.



## **Excerpt from City Council Minutes**

The City Council of the City of Raleigh met in regular session at 1:00 p.m. on **Tuesday, July 5, 2011**, in the City Council Chamber of the Raleigh Municipal Building, Avery C. Upchurch Government Complex, 222 W. Hargett Street, Raleigh, North Carolina, with the following present.

Mayor Charles C. Meeker, Presiding  
Mayor Pro Tem Nancy McFarlane  
Councilor Mary-Ann Baldwin  
Councilor Thomas G. Crowder  
Councilor Bonner Gaylord  
Councilor John Odom  
Councilor Russ Stephenson  
Councilor Eugene Weeks

Mayor Meeker called the meeting to order and invocation was rendered by Dr. Lola Fuller, Shalom Christian Church. The Pledge of Allegiance was led by Council Member Mary-Ann Baldwin. The following items were discussed with action taken as shown.

### **SPECIAL ITEMS**

#### **COMPREHENSIVE PLAN AMENDMENT – NATURE PRESERVE TASK FORCE REPORT – PUBLIC HEARING AUTHORIZED**

During the June 21, 2011 City Council meeting, Council received a report from the NPTF regarding test criteria for the definitions of "Nature Preserve" and "Protected Natural Area" and recommendations to reclassify four parks as Nature Preserves: Lake Johnson Park (southern portion), Annie Louise Wilkerson, MD, Nature Preserve Park, Horseshoe Farm Park, and Durant Nature Park. The addition of "Nature Parks and Preserves" to Element F of the 2030 Comprehensive Plan will require an official amendment to the Plan, including a public hearing. It was directed that the item be placed on this agenda for Council to receive a report from the Planning Department regarding the Comprehensive Plan amendment process. The Chair of the Task Force is not able to attend this Council meeting, so if there are questions from Council members it is requested this item be rescheduled for the July 18, 2011, Council meeting.

Mr. Odom moved approval of the public hearing process to move forward with the recommendation. His motion was seconded by Mr. Crowder and a roll call vote resulted in all members voting in the affirmative. The Mayor ruled the motion adopted on an 8-0 vote.



## **Appendix B**

City of Raleigh

Nature Preserves Task Force Report

Parks, Recreation and Greenway Advisory Board Action





333 Fayetteville Street, Suite 300  
Raleigh, NC 27602  
(919) 996-4774

DATE: May 16, 2011

TO: PRGAB members

CC: Diane Sauer, Director  
Dick Bailey, Design Development Administrator

FROM: David Shouse, Senior Park Planner

SUBJECT: Nature Preserve Task Force Report: SUMMARY

## **Background**

The City Council added “Nature Parks and Preserves” to Element F of the 2030 Comprehensive Plan and charged the Parks and Recreation Department to work with WakeNature Preserve Partnership to 1) develop criteria to determine which parks should be [re]classified, and 2) to develop a list of parks and open spaces to recommend for this classification. Discussion by the Council and City Manager suggested that the Parks, Recreation and Greenway Advisory Board (PRGAB) and the public be involved as well. The collaboration between staff, the Board, and the Partnership resulted in the formation of the ad hoc Nature Preserve Task Force (NPTF). The result of the NPTF effort is the accompanying report, which addresses Council’s charge and is summarized here.

## **Summary**

To develop criteria the NPTF solicited data input by subject matter experts from the City and State, outlined on Page 6 of the Report. The criteria were tested on a number of park units in order to evaluate its efficiency and effectiveness. The criteria are included in text on Page 9, and later in more detail in a table format. The NPTF tested the criteria on a number of park and open space areas, specifically including the parks suggested by the Wake Nature Preserve Partnership in their written comments on the Comprehensive Plan. Parks that are recommended to be Nature Preserves are listed below in Recommendations. In a parallel effort the City of Raleigh Land Stewardship Coordinator enlisted support from additional subject matter experts from NCSU, NC Museum of Natural Sciences, Wake Audubon and NC Natural Heritage Program to conduct field inventories on certain subject sites. The NPTF struggled with the definition assigned by City Council to this classification. After extensive discussion on semantics, public perception, and the implications for implementation and management the NPTF unanimously recommends the classification for entire park units be renamed Nature Preserves. An overlay designation for Protected Natural Areas within a park is recommended as well. The definitions are included in the report on page 16.



## **Next Steps**

The NPTF Report does not include details of implementation because the priority was to address the specific City Council charge. NPTF members do readily acknowledge that Managing Expectations (Section VII) is an important part of successful stewardship of Nature Preserves and Protected Natural Areas. Citizen questions at the CAC meetings and comments by the PRGAB members pointed out that additional information would be appreciated and provide more understanding on how the recommended actions would affect use of the parks. To this end the following process outline has been reviewed by the NPTF and is provided for clarification by the Parks and Recreation staff:

A. Staff will lead the development of site-specific management plans for designated Nature Preserves. For each Preserve subject matter experts, interested citizen and neighborhood groups, and non-governmental organizations will be identified using a stakeholder matrix to provide input and review prior to presentation of a draft management plan to citizens in a public meeting format. The process, including public notification and participation will follow current practices used for System Integration Plans. The recommended order is as follows, and will be pursued as resources allow:

- a. Lake Johnson Nature Preserve
- b. Annie L. Wilkerson, MD Nature Preserve
- c. Horseshoe Farm Nature Preserve
- d. Durant Nature Preserve

B. Developed and Master Planned parks will continue to be evaluated by the criteria and will concentrate on sites that are expected to be the subject of any improvements or any actions that might affect potential natural resource areas. Delineation of a Protected Natural Area at Anderson Point (Community) Park will follow a similar process outlined in A. above and will commence concurrent with Nature Preserve Management Planning. Additional sites for evaluation will include, as resources allow, the following parks: Brookhaven Nature (Neighborhood), Hymettus Woods (Special), and Walnut Creek Wetland Center (Special). Staff will provide a Stewardship Report to the PRGAB on an annual basis that will include any recommendations for park reclassification. The Stewardship Report will be provided to City Administration and City Council for information and any actions that may be required.

C. Undeveloped parks will be evaluated as part of the System Integration Plan process. This process will include the input of subject matter experts and opportunities for review and input by neighborhoods and interested citizens. The order for this evaluation will be determined with consideration for potential planning and development activity, PRGAB work plan, and seasonal opportunities.

## **Specific Recommendations**

A. Accept the NPTF Report and direct staff to incorporate in the Raleigh Comprehensive Plan the following, as outlined in the Report:

- 1.The definition of Nature Preserve;
- 2.The definition of Protected Natural Area.

B. Accept the criteria developed by the NPTF as outlined in the Report.

C. Classify the following parks as Nature Preserves:

1. Lake Johnson Park(southern portion),
2. Annie Louis Wilkerson, MD, Nature Preserve Park
3. Horseshoe Farm Park, and
4. Durant Nature Park.



Written comments were received from the following PRGAB members on the listed date, and are included, along with staff responses to the comments, in Appendix B:

Jan Pender, PRGAB	April 12, 2011
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Jimmy Thiem, PRGAB	May 9, 2011
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From: Jan Pender [mailto:jan@ctnc.org]  
Sent: Tuesday, April 12, 2011 5:22 AM  
To: Shouse, David; Cruickshank, Giavonia  
Subject: Questions for Nature Preserves Task Force

*David and Giavonia,*

*The weekend did not go as planned, so I am a day late. Sorry. I understand if you can't answer by the Parks Bd. meeting, but I hope you will still take these questions into consideration and respond to them as some point.*

Question 1: The report gives good background information on the Parks Plan and Comprehensive Plan and the City Council Charge in the introduction. Why not include information about the Wake Nature Preserve Partnership? It is my understanding that they have been and will continue to play a vital role in addressing the City Council's charge. Why not include in the report why the Partnership was formed, the types of professionals it includes, and what resources the Partnership offers the City? The City just recognized their efforts through an environmental award.

Staff Response 1: We will incorporate a list of potential partners, including Wake Nature Preserve Partnership, at the end of Section VII. Managing Expectations B. Time Frame for Implementation. We feel it would be better to acknowledge all of the City's potential partnerships rather than specifically discuss one partner.

Question 2: Related to above, in the "Managing Expectations" section, why is there not a reference to using the Wake Nature Preserve Partnership in implementing the recommendations? It is my understanding that they are prepared to donate many more of their professional hours to help the Parks Dept. implement these recommendations. The caliber of the natural resource professionals in the Partnership makes this an important partnership opportunity for the City.

Staff Response 2: We expect to engage professionals from the Wake Nature Preserve Partnership as well as NCSU and State Agencies for partnering on future park evaluations and on Nature Preserve management plan creation and implementation. As stated in Response #1 we will incorporate a list of potential partners at the end of Section VII. Managing Expectations B. Time Frame for Implementation.

Question 3: Why did the report not address historical and/or current nature parks such as Brookhaven? According to section 2 in the Executive Summary, will they get the "Protected Natural Area" designation since it is consistent with adopted master plans? I believe there needs to be more clarification about how these historical "nature parks" fit in the Task Force plan.

Staff Response 3: The definition of a Nature Preserve and a Protected Natural Area is high quality plant or animal populations, natural communities, landscapes or ecosystems... Developed parks with existing Master Plans that emphasize "nature" or are called "nature parks" may not actually contain high quality natural resources, and may not sufficiently meet the criteria. There was not enough inventory information on these park units for the Task Force to evaluate them before creating this report. These park units will be inventoried with the remaining Raleigh parks as time and resources allow and will be evaluated using all of the criteria.



Question 4: Can the “Next Steps” section of the Executive Summary contain more information? I don’t see an explanation here or elsewhere of what will happen with public comments. Will they go back to the Task Force to address and be used to update the report? I doubt the PRGAB or the City Council has the time or expertise to address some of the questions that will arise. I think the Moore Square Plan had an excellent outline for their public process. While this is not near as big a project as that master plan, I believe the same model should be applied in giving information about process.

Staff Response 4: We can include this information particularly since it will make the process more transparent to the public. Additional next steps include:

- Public comment will be taken until May 5th
- The Nature Preserves Task Force will review all comments, public and PRGAB, by email and will incorporate comments into the Report by May 13th. Public Comment received will be incorporated under Appendix C.
- Updated Report will be provided to PRGAB for review before its May 19th meeting
- PRGAB will discuss NPTF Report at its May 19th meeting and provide a recommendation to City Council
- Report will go to City Council at its June 21st meeting
- Interim management opportunities will be evaluated and implemented until site specific management plans can be created
- Continued evaluation of City of Raleigh park properties against the adopted criteria by appropriate internal staff and external experts including NCSU, Wake Nature Preserves Partnership, NC Natural Heritage Program, NC Wildlife Resources Commission, Wake Audubon, NC Museum of Natural Sciences, for exceptional natural areas worthy of park reclassification
- Site specific management plans will be created that include and consider input from the Recreation and Parks Divisions, Neighbors, External Experts, citizens, and the Adopted Master Plan.

Question 5: Should there be a timeline or explanation included in Section A of the Introduction about when the new Park Plan will be developed. I believe the timeline is somewhat dependent (if not entirely) on budget. I believe a couple of sentences explaining expectations for the new Park Plan would be helpful to the public.

Staff Response 5: The update to the Park Plan is scheduled over the next 18-24 months (third-fourth quarter of 2011 and through 2012). While this has no bearing on the work and report of the Task Force it is an opportunity to provide outreach and information exchange with citizens on the Nature Preserve classification and Protected Natural Area designation.



Question 6: In Section C of the Introduction, what will be the process for land bought for future parks? There is no mention of its evaluation in this section.

Staff Response 6: Land acquired for future parks will be evaluated for classification as Nature Preserves or designation as Protected Natural Areas during the System Integration Planning process. If the natural resources on the site are of high quality and meet the criteria, a recommendation will be made in the SIP report for the future park property to be evaluated further or reclassified. The SIP recommendations would then be reviewed and adopted by the PRGAB and City Council.

During the Master Planning Process for the future park property, the SIP report and recommendations would be shared with the Master Plan Committee. Staff would explain the reasoning for the recommendations and request that the Committee consider reclassification or designation. Recreational uses, park amenities and park maintenance would need to be considered and determined within the bounds of the classification or designation. Further property evaluation would need to occur during the Master Plan Process. If the Protected Natural Area designation is recommended at this point, the area(s) deserving designation should be determined and delineated in conjunction with internal staff and external experts. The Master Plan report and recommendations would go forward to the PRGAB and City Council for review and approval. If recommended, Park reclassification or Protected Natural Area delineation would occur at this point in the process.

Question 7: On page 12, in number 10 of “Stewardship and Management,” who will determine if a parcel or park unit is of “sufficient size?” As someone who works for a land trust, I know that question can have multiple answers and often requires a range of experts to weigh in on the determination. Will the Parks Dept. consult the Natural Heritage Program, the Wake Nature Preserve Partnership? This question also applies more broadly to number 9 in this same section. Who will determine the balance of benefits? The Parks Dept. alone, or in consultation with other natural resource experts?

Staff Response 7: City of Raleigh staff in collaboration with subject matter experts from various agencies including NC Natural Heritage Program, NC Wildlife Resources Commission, NC Museum of Natural Sciences, NCSU, Audubon and Wake Nature Preserve Partnership will determine if a park unit meets the criteria whether it is the criteria for sufficient size, the balance of benefits or any of the other 11 criteria.

Speaking specifically to the criteria for sufficient size, it will vary based upon the park unit and its location relative to other land resources. Sufficient size is dependent upon the species being protected and its required habitat. A bird will need more land than a plant. Scientific data will be used to determine how much habitat is necessary/sufficient for each species.

Subject matter experts will be involved on future park evaluations, interim management efforts, and development of management plans for Nature Preserves and Protected Natural Areas.



Question 8: In the process section (Letter “C”), in the fifth line of the first paragraph, what is the determination of what is “sufficient” for a park to meet the criteria?

Staff Response 8: Criteria listed in the Nature Preserve Task Force report was established collectively by the Task Force as a tool for ongoing resource evaluation in City of Raleigh park lands. The criteria are intended to be evaluated as a whole, looking at individual criteria in context to the larger site. Subject matter experts from various agencies will contribute and review future park evaluations to help internal staff determine if the park unit meets sufficient criteria to be reclassified as a Nature Preserve.

Although it would be ideal if we could weight the criteria to come up with a number to rank each park with any park over 'X' threshold classified as a Nature Preserve, that method provides very little room for internal staff and external experts to evaluate the park against all of the criteria.

Question 9: Why wasn't Walnut Creek Wetland Center recommended for reclassification as a protected natural area?

Staff Response 9: At the time of this report, there was not adequate inventory data collected by internal staff and external experts for the Task Force to evaluate Walnut Creek Wetland Center. It will be inventoried along with the other remaining parks as time and resources allow. City of Raleigh staff will collaborate with subject matter experts on future park evaluations. See Response #3 for more information.

Question 10: In the Horseshoe Farm Special Park section, why is there no mention of the granite dome that causes the bend in the river in #8 of Additional Criteria? It seems like that is a pretty significant geologic characteristic? I also believe there is no mention that the property is regarded as “significant” in the state Natural Heritage Plan. Perhaps this is implied with specific references to species and natural communities, but it seems to me like that designation is a useful piece of information to include somewhere for any park for which it applies.

Staff Response 10: Criteria #2 evaluates whether the park contains Significant Natural Heritage Area (SNHA) as determined by the NC Natural Heritage Program. Horseshoe Farm is contained within the Upper Neuse River Floodplain Significant Natural Heritage Area and is mentioned specifically in the write-up; however, there is nothing within the inventory that reflects that a granite outcrop caused the bend in the river. The Task force was unable to confirm the horseshoe bend is caused by a granite dome.



From: Jimmy Thiem [mailto:JThiem@hagersmith.com]  
Sent: Monday, May 09, 2011 9:38 AM  
To: Cruickshank, Giavonia  
Cc: Shouse, David  
Subject: NRTF - version 2!

#### Nature Preserve Task Force Report Jimmy Thiem comments

Comment 1: Intent of Board Action – I am not clear what the board is to be voting on. It would make sense to me to have us vote on the “formal” language to be adopted and incorporated into the Comprehensive Plan, Parks Plan, or elsewhere only. The remainder of the document (process, table, individual park studies) would be forwarded as reference material only. I am concerned, and think it premature, that we would officially endorse (make recommendations) for the individual parks, prior to Council having approved the formal language creating the classifications.

Staff Response 1: The PRGAB is not voting on the Nature Preserve classification as a Comprehensive Planning tool, as Council has already directed this new classification (see Appendix A, page 18 of the NPTF Report). The Board is voting on the outcome to the Council charge: development of criteria and recommendation of parks to be reclassified. The PRGAB is voting on the NPTF report, similar to acceptance of an SIP report. A specific staff recommendation will be included in a memo to the PRGAB for its May 19 meeting.

Comment 2: Organization of report – If the criteria table is part of the “formal” classification proposal, I recommend that it be moved from the appendix into the “formal” document, so as not to have it confused with other supporting information (ex. Info on meetings).

Staff Response 2: This is an excellent recommendation; the criteria table will be incorporated into the main NPTF document as Heading D under Section IV. Criteria.

Comment 3: Objective Criteria- As I noted during our April 28 meeting, I have concerns about the steep slopes criteria. Here are my concerns/questions:

- Link to vegetation and wildlife- I understand the importance of protecting steep slopes to prevent erosion and how that might relate to protection of natural areas. What I am not aware of is the direct association of steep slopes to wildlife or vegetation communities as is well documented with wetland soils as an example.

Staff Response 3a: Sloped areas may be more likely to have reduced cultural disturbance (land clearing) and could potentially contain higher quality natural resources such as uncommon plants. One of the first places botanists look for uncommon plants is on sloped areas. Slope aspect (north facing vs. south facing) is an important factor in plant distribution.

- Slope description- I feel that steepness as a slope percentage needs to be clearly identified in the “formal” document. I understand a slope (8%) is included in the table in the appendix, and this is fine if the table is clearly part of the “formal” document.

Staff Response 3b: Table of Criteria will be incorporated into the Report. See Response #2.



- Slope value- I do not agree with the use of 8% or greater slope as the defining criteria. I have taken some time to review the City's code as well as the Soil Conservation Survey for Wake County. Of note: Tree Conservation Ordinance uses 45% or greater slope for lands adjacent to streams and rivers.

SCS slope classifications generally fall into the following ranges: A (0-2%), B (2-6%), C (6-10%), D (10-15%), E (10-20%), F (20-45%). Where slopes begin to have "severe" limitations is generally above 10- 15%. Also of note is that if the 8% range is used, then approximately 33% of Wake County falls into this category (per data in SCS report). This seems excessive to me. As I believe I noted during the meeting, I think a more appropriate threshold is 15% +/- . Vegetation type- I also suggest that the steep slopes be limited to woodland, or possibly wooded and shrub cover. I do not think that regularly maintained fields should be included here. By way thinking about this, per industry standards, slopes 3h:1v (33%) or flatter are considered mowable with standard equipment.

Staff Response 3c: As stated in the Table of Criteria under the last column, Source, 8% was chosen because it is used as a criteria in the Parks and Recreation Department's GIS-Based Neighborhood Park Suitability Analysis (NPS) model, which divides slope into three categories – 0-5%, 5-8% and >8%. Areas of lesser slope are ideal for building. Areas with slope of 8% or greater justify a closer look by staff to understand what recreational uses are compatible. This data is also used to evaluate park units for System Integration Planning.

The 8% slope threshold for the Nature Preserve criteria would serve the same function as it does for the NPS model and SIPs. It would bring those areas that contain slopes of greater than 8% to the attention of internal staff and external experts, indicating that further investigation of these areas is suggested.

Regarding the comment about vegetation type, staff has explored using the NC Gap Analysis Project (NCGAP) data to represent land cover and has found that application of the data for this purpose is not feasible. The challenges of using this data or any type of land cover data are its currency, availability and level of detail. The NCGAP data is intended for contextual rather than site specific use.

Although it is possible to amend the slope criteria to a higher percentage and to specify vegetation type staff does not recommend doing so without a scientific basis for these changes.

Comment 4: Allowed uses in designated parks/areas- The term "best-practice management" is used in the document to characterize the protection and management of designated areas. From my professional background, I understand this term "best management practices" (BMPs) relative to erosion and stormwater. I do not believe that the general public clearly understands the term, nor am I aware of any document that clearly defines it. In addition, the term "best-practice management" does not clearly provide guidance as to allowable uses within the designated areas/parks. I would recommend that more clarity be provided around the term "best-practice management" and that some language be provided to describe acceptable uses within designated areas.

Staff Response 4: Best-practice management describes comprehensive management that proceeds with the goal of preventing or reducing impact to natural resources, and includes but is not limited to:

- careful site selection for new park amenities,
- erosion control,
- water conservation,
- soil quality protection,
- invasives control,



- wildlife management,
- Integrated Pest Management (IPM), and
- site monitoring.

The term “Best Management Practices” was developed to describe techniques for pollution and stormwater management; the term has now been adopted more broadly as a tool for stewardship in forestry, wildlife management, golf course management, etc. For example, the International Society of Arboriculture has developed Best Management Practices for Tree and Shrub Pruning.

Best-practice management should be used during design and construction, operation and maintenance.

Comment 5: Process- I feel the document needs to describe how, i.e. what process(es) are proposed for implementation of the designations.

Staff Response 5: Land acquired for future parks will be evaluated for classification as Nature Preserves or designation as Protected Natural Areas during the System Integration Planning process. If the natural resources on the site are of high quality and meet the criteria, a recommendation will be made in the SIP report for the future park property to be evaluated further or reclassified. The SIP recommendations would then be reviewed and adopted by the PRGAB and City Council.

During the Master Planning Process for the future park property, the SIP report and recommendations would be shared with the Master Plan Committee. Staff would explain the reasoning for the recommendations and request that the Committee consider reclassification or designation. Recreational uses, park amenities and park maintenance would need to be considered and determined within the bounds of the classification or designation. Further property evaluation would need to occur during the Master Plan Process. If the Protected Natural Area designation is recommended at this point, the area(s) deserving designation should be determined and delineated in conjunction with internal staff and external experts. The Master Plan report and recommendations would go forward to the PRGAB and City Council for review and approval. If recommended, Park reclassification or Protected Natural Area delineation would occur at this point in the process.

Once a park unit is classified as a Nature Preserve or designated as a Protected Natural Area staff can begin working on a site specific management plan. The first step will be assembling a stakeholder group whose focus is to guide and write the plan. Representatives will include Recreation and Parks Division staff, staff from other City of Raleigh Departments, Neighbors, External Experts, and citizens. The management plan will take into account the recreational uses, intent, programming, and activity locations described in a park’s Adopted Master Plan. Each plan is anticipated to include existing inventory data gathered by internal and external sources, a report of existing conditions, identification of natural features and explanation of habitat needs, definition of appropriate management strategies to maintain species health, and a table of maintenance regimen and an action plan to document both maintenance and who is responsible. Once the management plan is assembled it will be vetted through an internal and public review process, just like a SIP – presented at the appropriate CAC(s), plans made available for review at near-by community centers and on-line, solicited feedback from State agencies and local organizations that are knowledgeable on the subject matter, PRGAB and City Council.

Management strategies will be implemented once the plans are adopted and staff trained. Park ID signage will be updated as funding allows.



## **Appendix C**

City of Raleigh

Nature Preserves Task Force Report

Public Comment



Public comment and letters of support were received by the following organizations and individuals on the listed date, and are included in Appendix C:

Wake Audubon Society	April 7, 2011
Audrey Brake	April 14, 2011
NCSU – College of Natural Resources	April 15, 2011
WakeNature Preserve Partnership	April 18, 2011
Triangle Greenways Council	April 28, 2011
NCDENR	May 3, 2011



WAKE AUDUBON SOCIETY POSITION PAPER  
ON THE  
DRAFT NATURE PRESERVES TASK FORCE REPORT  
MARCH 15, 2011

The Board of Wake Audubon Society (WAS) endorses most of the March 15, 2011 Draft Nature Preserves Task Force Report to the City Council which fulfills the Council's October 7, 2009 Resolution to "Develop Criteria for determining which City of Raleigh parks should be classified as Nature Parks and Preserves" and to "Provide a list of parks that meet the criteria and are recommended for reclassification." WAS accepts the Task Force's criteria and supports reclassifying Annie Louise Wilkerson, Horseshoe Farm, Durant Nature Park, and Lake Johnson in the first group of Nature Preserves.

WAS is less certain about the proposed "Protected Natural Areas" designation for Anderson Point Park and would like to see more specific information before extending our approval. Would a proposed "protected natural areas" reclassification include the wildlife restoration meadow spearheaded by WAS as well as several other ecologically sensitive spots. If so, WAS approves the reclassification. If not, we have serious reservations. However, we do endorse an active inventory process to determine if other current parks qualify for protective designations. We view the Task Force recommendations as creating oases for many plant and animal species that are experiencing precipitous population declines.

Nature Preserves and Protected Natural Areas respond to one of Wake Audubon's greatest concerns—the alarming decline in common North American bird populations over the past 40 years. According to the National Audubon Society, Northern bobwhites experienced an 82% decline while Eastern meadowlarks and loggerhead shrikes respectively underwent 72% and 70% reductions in population. These are only three examples from the twenty species on Audubon's National Common Birds in Decline list that have lost at least half their populations in just four decades. Nature Preserves and Protected Natural Areas within our parks offer relief from this problem since many of the losses stem from habitat destruction.

Wake Audubon believes parks should serve a healthy mix of uses—not necessarily all in the same park—for a variety of users. Thus the park system should accommodate athletics and other forms of robust use as well as provide parks for less strenuous but no less legitimate needs. Nature Preserves and Protected Natural Areas serve vital scientific, aesthetic, educational and spiritual purposes for a significant number of Raleigh citizens. With our reservation regarding Anderson Point Park, WAS otherwise approves the Draft Task Force Report and stands ready to help implement it once approved.



# Park Plan @ RaleighNC.gov

## COMMENT CARD

PLEASE FILL OUT THE INFORMATION BELOW, AND ADD  
YOUR COMMENTS FOR THE PARKS, RECREATION AND  
GREENWAY BOARD TO CONSIDER.

NAME Audrey Brake

ADDRESS 4909 Tupenny Lane  
Raleigh, NC 27606

PROJECT: Lake Johnson Metro Park DATE 4/14/11

It is unclear how the reclassification of the southern half of Lake Johnson Metro Park to nature preserve will change existing rules and regulations. I would like to see the current rules and regulations stay as is, especially regarding allowance of leashed pets on trails. Also, it appears the proposed plan does not sufficiently address the need for additional parking.



NC STATE UNIVERSITY

Office of the Dean  
919.515.2891  
919.515.6193 (fax)

April 15, 2011

Mr. David Shouse  
Senior Park Planner  
Raleigh Parks and Recreation Department  
333 Fayetteville Street  
Suite 300  
Raleigh, North Carolina 27601

Dear Mr. Shouse,

We, the undersigned, are faculty and staff within North Carolina State University's College of Natural Resources. We are writing to express our enthusiastic support of the designation of the five proposed parks – Lake Johnson (southern portion), Horseshoe Farm, Annie Louise Wilkerson, Durant Park, and Anderson Point Park (portion) – as "Nature Preserves" or "Protected Natural Areas" by the City of Raleigh.

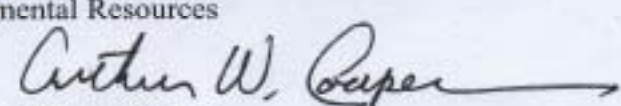
As Wake County and Raleigh continue to grow, the number of sites in close proximity to the University where we can take our students for field work is shrinking. In our roles as educators and researchers, we are eager to maintain the ecological integrity of the remaining properties currently under public management that are reasonably close to NC State's campus. These properties serve as extensions of our classroom learning in many capacities. Designating these parks as Nature Preserves or Protected Natural Areas will ensure their continued value for service learning, teaching, research and extension opportunities.

Sincerely,

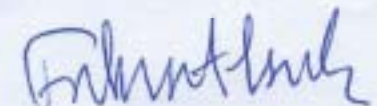
Dr. Bronson Bullock  
Department of Forestry and Environmental Resources



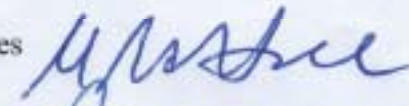
Dr. Art Cooper  
Department of Forestry and Environmental Resources



Dr. Fikret Isik  
Department of Forestry and Environmental Resources



Dr. Melissa McHale  
Department of Forestry and Environmental Resources



Dr. Susan Moore  
Department of Forestry and Environmental Resources



Dr. Erin Sills  
Department of Forestry and Environmental Resources

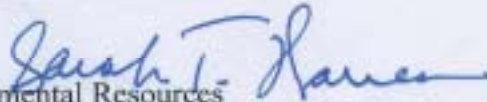




Ms. Renee Strnad  
Department of Forestry and Environmental Resources



Dr. Sarah Warren  
Department of Forestry and Environmental Resources



Dr. Dorothy Anderson  
Department Head, Parks Recreation & Tourism Management



Dr. Annette Moore  
Department of Parks, Recreation & Tourism Management



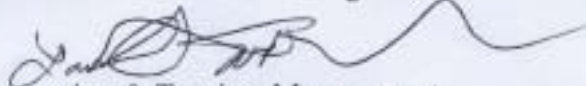
Dr. Roger Moore  
Department of Parks, Recreation & Tourism Management



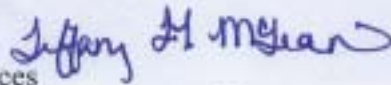
Dr. Samantha Rozier Rich  
Department of Parks, Recreation & Tourism Management



Dr. Laura Tateosian  
Department of Parks, Recreation & Tourism Management



Ms. Tiffany L.F. McLean  
College of Natural Resources



Dr. Fred Cabbage  
Department of Forestry and Environmental Resources







WakeNature Preserves Partnership  
c/o George Hess & Toddi Steelman  
Department of Forestry & Environmental Resources  
NC State University  
Raleigh NC 27695-8008  
[www.WakeNature.org](http://www.WakeNature.org)

April 18, 2011

City of Raleigh Parks and Recreation Department  
Parks, Recreation and Greenway Advisory Board  
Nature Preserves Task Force

Dear City Leaders,

The March 15, 2011 Draft Report of the Nature Preserves Task Force was reviewed at the April 7, 2011 WakeNature Preserves Partnership (WNPP) meeting. Based on this discussion WNPP offers the following comments:

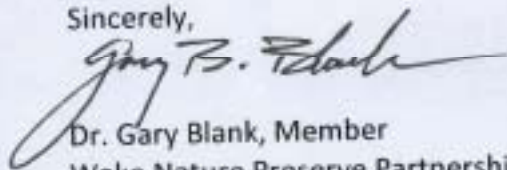
- The Partnership appreciates the thoughtful work that has gone into this report and the significant step that this report represents in achieving best practice management and stewardship of the finest natural heritage areas in the City's parks inventory. We congratulate the City for taking this important step and are here to support your efforts if you should choose to apply for "WakeNature Preserve" designation for the parks you will classify as Nature Preserves. This would enable the City to avail itself of a variety of free technical assistance and resources available through the Partnership that will be helpful in your stewardship efforts.
- The Partnership supports the criteria outlined in the Report and the recommendation of parks that are identified for classification as Nature Preserves.
- The Partnership acknowledges that this process did not have time to consider all City of Raleigh parklands, and understands that other properties will be evaluated by staff in the future. We hope that the final report will build in a mechanism for reporting to the PRGAB and City Council on an annual basis the progress of this review process and any recommendations associated with evaluation and/or classification of other parks.
- Recognizing that there will be a cost related to stewardship of these properties, the Partnership would offer to work with the City and PRGAB to:
  1. Provide technical assistance to help defray expenses associated with inventorying City properties that could be considered in the future as Nature Preserves or Protected Natural Areas. We have access to students, classes and other technical experts that we are more than willing to leverage to assist the City in future efforts.
  2. Provide technical assistance to help defray costs associated with creating management plans for properties soon to be designated Nature Preserves or Protected Natural Areas.



- WNPP hopes the City of Raleigh Parks and Recreation Department will become a formal partner with us in promoting and assisting better environmental stewardship of the most ecologically significant natural heritage areas in Wake County.

The Partnership appreciates the opportunity to review this draft report and provide feedback. Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in dark ink, appearing to read "Gary B. Blank". The signature is fluid and cursive, with a long, sweeping underline that extends to the left.

Dr. Gary Blank, Member  
Wake Nature Preserve Partnership





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## TRIANGLE GREENWAYS COUNCIL

Jimmy Thiem, Chairman  
PR&G Advisory Board  
P.O. Box 590  
Raleigh, NC 27602

Dear Mr. Thiem:

Over the past three decades the Triangle Greenways Council (TGC) has worked to advance the greenway concept in Raleigh and throughout the region. This has been accomplished through: (1) provision of conferences and educational opportunities, (2) service projects, and most recently (3) land trust activity. The TGC currently holds 187 acres within Raleigh's identified greenway corridors. Learn more about the greenways concept under "Why Greenways" at [www.trianglegreenways.org](http://www.trianglegreenways.org)

During the recent Comprehensive Plan (CP) update process a robust Sustainability Theme emerged in the form of new Policies and Action Items. Taken collectively the elements of the 2009 CP have the potential to overhaul both: (1) the way the City makes decisions and operates programs, and (2) the competitiveness of the city and region in the future. Implementation of the new CP will be a tremendously complex exercise, and getting optimum results from all the moving parts will be a challenge.

The Nature Preserves Task Force (NPTF) and its report currently under review is an early product of the CP update process. This is an important step, among the many steps that must be taken, toward a more environmentally sustainable urban area. It is a piece of the puzzle that must be put in place to provide that at least a minimum level of ecological function will survive development related to projected population growth.

The Triangle Greenways Council supports creation of a Nature Preserve classification. This is a progressive step that positions the City to have a more balanced and well-rounded park system. It is also necessary to accommodate appropriate stewardship and management of subject sites in order to conserve their unique characteristics and features. These steps are necessary if the nature preserves are to function as "core habitats" within an interconnected city and region-wide system of green infrastructure. Further, the TGC supports classification of the First Four Nature Preserves, as recommended in the NPTF report.

The Triangle Greenways Council generally supports the "Protected Natural Area" overlay designation and its application to Anderson Point Park as recommended. The TGC's reservation results from the relationships identified in the next paragraph, as well as the current absence of an explanation of how the NP classification and NPO designation will



ultimately be applied to greenways. On the assumption that the continued refinement of the Nature Preserves concept and its applications will proceed through an open, integrated, and cooperative process, then the TGC does not oppose these recommendations (above).

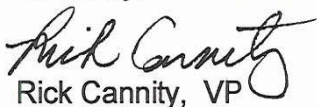
During the CP update process it was suggested that greenways were the single most important spatial feature for accomplishing ecological and environmental sustainability. They also play a major role in determining urban development patterns, shaping communities, and creating the image of the city. The implication of greenways within the CP, and the opportunity for them to have profound positive effects on the city's future is reflected in the attachment to this letter. Additional considerations and relationships follow:

- The CP's vision of greenways is much broader than the program currently being implemented by the City, so the program must be updated;
- Advances in scientific knowledge related to greenway purposes have not been incorporated routinely into current planning and design;
- Of the six Objective Criteria for NP classification, four are predominately found within the greenway corridors, while one is often found there;
- There appears to be some confusion or inconsistency about the characteristics of greenways as they relate to the parks considered for initial Nature Preserve classification;
- Raleigh's greenways initiative was recognized in 1990 as the earliest comprehensive local greenway system in the country, and with the CP's proposed updates it can still be branded and marketed as the contemporary model.

Thus, while the expectations for greenways has remained unrealized, the Nature Preserves topic has advanced. Caution should be exercised to avoid the possibility of Nature Preserves usurping or inadvertently constraining the potential of greenways.

In the final analysis, greenway system and network creation is just as dependent upon the application of good science as is NP classification and NPO designation. Close coordination and attention to greenways could avoid unfortunate missteps before the Green Infrastructure Plan, Urban Forestry Plan, Wildlife Habitat Plan, etc. are completed and available to inform complementary actions on greenway related CP Policies and Action Items. The Triangle Greenways Council is prepared to participate in such collaborative activities.

Sincerely,

  
Rick Cannity, VP

Attachments

✓ cc: Diane Sauer



## Raleigh Comp Plan

### Page 22, Growth Framework Map F-2.

Note that major, but not all, riparian corridors (floodplains) are identified as “Environmentally Critical Areas”. This is positive for the greenway system. It may be positive for the prospect of getting wider corridors with adjoining wetlands and other ecologically sensitive features.

### Page 27, Land Use Allocation Table LU-1.

Note category for Parks, Greenways, Open Space, and Golf Courses. This is a catch-all category that includes apples and oranges. Since golf courses are privately owned they are not permanent open space. Thus, the data over represents the effect on urban character, and its permanents. Concerns have also been expressed about the acreages being excessively misrepresentative because they may include both land and water (lakes).

### Page 41, Zoning and Infrastructure Impacts, Policy LU 2.6; and Linking Development and Infrastructure, Action LU 2.4.

In the Comp Plan update process the City amended its definition of “infrastructure” to explicitly include the greenway system [see Implementation, Glossary page VIII]. This could be positive and significant for greenways, given these policy and action items. Yet, there are two potential problems that will require perseverance: (1) considering greenways as an element of infrastructure is new and could easily be overlooked; and (2) unlike roads, sewer, and water systems, greenways do not have accepted/adopted standards to guide decisions resulting from the policy and action items. It also differentiates greenways from units of the traditional parks system, as linear infrastructure must be interconnected/continuous in order to function. DPR may not yet understand this dichotomy, the impact of the change, or the responsibility and opportunity they have.

### Page 42, Land Conservation Approaches, Action LU 2.7.

Where development is proposed on land adjoining/including designated greenway corridors, this action item could standardize a process for enhancing the minimum required greenway widths. Whether or not the City’s internal processes for developing these new regulations will yield that result is yet to be seen.

Page 46, Connectivity, Policy LU 4.5; Page 47, Connective Site Design, Action LU 4.2; Page 88, Bicycle Facilities, Map T-3; Page 89, Capital Area Greenway, Policy T 5.7; Page 91, Rails to Trails, Policy T 5.14; Page 93, Railroad Greenway Trails, Action T 5.14; Page 192, Greenway Trail Expansion, Policy PR 3.1; Page 193, Stream Open Space Networks, Policy PR 3.5; Page 193, Greenway Connectivity, Policy PR 3.6; Page 193, Pedestrian Links to Greenways, Policy PR 3.8; Page 294, Pedestrian and Bicycle Links.



All of these relate to TRANSPORTATION, some directly and some indirectly, but they all are necessary to build the greenway infrastructure system. Clearly, greenways have a role in transportation, and therefore DPR has a role in creation of the nonmotorized transportation portion of the system. They also have an opportunity to access some types of transportation funding. It also begs the question of how the Police Department will/can respond to nonmotorized vehicle management and public safety on this multipurpose system. Since the majority of policing is having a “visible presence”, how many police will be required by a 70-100 mile long and 4000+ acre greenway system?

Page 55, Open Space Networks, Action LU 8.2; Page 118, Protection of Water Features, Policy EP 2.5; Page 119, Environmental Sensitive Development Controls, Action EP 2.4; Page 121, Water Quality BMPs, Policy EP 3.1; Page 122, Preserving Watercourses, Policy EP 3.7; Page 126, Acquisition of Flood Prone Lands, Policy EP 4.4; Page 127, Floodplains and Drainage Basins, Map EP-2; Page 128, Flood Mitigation Funding, Action EP 4.1; Page 129, Floodplain Regulations, Action EP 4.4; Page 192, Riparian Greenways, Policy PR 3.3; Page 193, Floodplain and Upland Protection, Policy PR 3.7; Page 194, Stream Buffer Acquisition, Action PR 3.4; Page 217, Green Infrastructure Study, Action PU 5.4; Page 236, Scenic Corridors, Policy UD 1.7.

All of these relate to FLOODPLAINS & RIPARIAN CORRIDORS, again, some directly and some indirectly. These features are of course, the basic physical structure of the greenway system. Once again, multiple agencies share responsibility, which is good for greenways as long as they all pull their weight and cooperate. The historic strength and weakness of the greenways concept is that it is multipurpose, but agencies are responsible for their respective parts/roles, and they frequently conflict. Work on the Green Infrastructure Study (page 217) is the key catalyst for conceptualizing and organizing these initiatives, but it is not scheduled to begin for several more years.

Page 40, Compact Development, Policy LU 2.2; Page 44, Infrastructure Concurrency, Policy LU 3.4; Page 53, Conserving, Embracing & Revitalizing Neighborhoods, Policy LU 8.3; Page 89, Pedestrian & Bicycle Network Connectivity, Policy T 5.4; Page 119, Green Infrastructure Team, Action EP 2.3; Page 140, Environmental Indicators, Action EP 9.5; Page 157, Special Events & Attractions, Policy ED 6.3; Page 159, Creative Workforce Retention, Policy ED 7.4; Page 160, External Coordination, Policy ED 8.5; Page 185, Coordinated Park Planning, Policy PR 1.3; Page 193, Infrastructure Projects & Greenways, Policy PR 3.9; Page 199, Park Stewardship, Policy PR 6.3; Page 199, Innovative Maintenance Strategy, Action PR 6.1; Page 199, Adopt A Park/Adopt A Trail, Action PR 6.2; Page 217, Green Infrastructure Study, Action PU 5.4; Page 275, Preservation & Other Goals, Policy HP 4.2; Page 275, Interagency Coordination, Policy HP 4.3; Page 282, Public Art in Public Spaces & Public Projects, Policy AC 1.2; Page 283, Public Art Master Plan, Action AC 1.2; Page 305, Neuse River Corridor Extension, Action RC 6.1; Page 305, Regional Open Space Plan, Action 6.5; Page 306, Wildlife Habitats, Action RC 6.7; Page 341, Dorothea Dix Open Space, Policy DT 5.3.



All of these relate to COORDINATION, directly or indirectly, and are all important to the future of multipurpose infrastructure such as greenways. An undercurrent throughout this comprehensive plan update process is acknowledgement that City agencies needed to break out of their traditional organizational boxes, in order to better address today's issues, joint responsibilities, and common goals. Thus, City agencies will have to coordinate among themselves, as well as among other local, State, and Federal agencies like never before. This will require additional work from current staff to accomplish. Further, the oversight structure in the City Manager's Office is not currently organized to coordinate across these new agency relationships. In some cases university expertise and/or consultants will be required to catch up with new and evolving concepts/science. To a greater or lesser extent public involvement is part of each of these items, and that participation/input is needed to get the best results. Again, the list above shows the impressive breadth of topics that: (1) can improve greenways, and (2) be improved by greenways through successful coordination.

Page 54, Open Space in New Development, Policy LU 8.9; Page 55, Open Space Networks, Action LU 8.2; Page 118, Green Infrastructure, Policy EP 2.1; Page 118, Greenway System, Policy EP 2.6; Page 119, Green Infrastructure Plan, Action EP 2.1; Page 119, Green Infrastructure Team, Action EP 2.3; Page 120, Greenprint, Map EP-1; Page 126, Daylighting Streams, Policy EP 4.1; Page 131, Seasonal Pools & Streams, Policy EP 6.2; Page 131, Special Status Species, Policy EP 6.3; Page 131, Biodiversity & City Park Lands, Policy EP 6.4; Page 132, Habitat Plan, Action EP 6.1; Page 132, Habitat Protection Regulations, Action EP 6.2; Page 132, Invasive Species Control, Action EP 6.3; Page 186, Parks Plan Update (& Natural Areas Text Box), Action PR 1.1; Page 186, Greenway Plan Update, Action PR 1.2; Page 193, Neuse River Land Acquisition, Action PR 3.2; Page 197, Mandatory Greenway Dedication, Action PR 5.1; Page 198, Identify Conservation Lands, Action PR 5.4; Page 200, Awareness of Natural Resources Areas, Action PR 6.5; Page 200, Stewardship Capacity, Action PR 6.6; Page 217, Green Infrastructure Study, Action PU 5.4; Page 296, Regional Smart Growth Promotion, Policy RC 2.1; Page 296, Regional Open Space Networks, Policy RC 2.7; Page 304, Conservation Partnerships, Policy RC 6.1.

All of these relate to GREEN INFRASTRUCTURE & ECOLOGICAL FUNCTION, directly or indirectly. These may constitute the most significant and evolutionary part of the updated comprehensive plan. It is also where greenways may have their greatest multipurpose impacts. Because it is both new data and a new way of thinking/decision-making, it is also the most likely to be done poorly. Done well, these items will position the City's natural physical features and public use of them to compete nationally for the remainder of this century.

Page 138, Environmental Education, Policy EP 9.1; Page 138, Environmental Justice Education, Policy EP 9.2; Page 138, Environmental Stewardship, Policy EP 9.3; Page 139, Environmental Education Programs, Action EP 9.1; Page 140, Community Gardening, Action EP 9.4; Page 140, Environmental Indicators, Action EP 9.5; Page 197, Interpretive Conservation Activities, Policy PR 5.3.



All of these relate to ENVIRONMENTAL EDUCATION, directly or indirectly. They are a structure upon which an expanded and improved program can be built, for the benefit of the City and region, and its growing population.





North Carolina Department of Environment and Natural Resources  
**Office of Conservation, Planning, and Community Affairs**

Beverly Eaves Perdue, Governor

Linda Pearsall, Director

Dee Freeman, Secretary

May 3, 2011

David M. Shouse  
Senior Park Planner  
Raleigh Parks and Recreation  
333 Fayetteville Street, Suite 300  
Raleigh, North Carolina 27601

Re: Draft Report of the City of Raleigh Nature Preserves Task Force

Dear Mr. Shouse:

Thank you for the opportunity to review and comment on the Draft Report of the City of Raleigh Nature Preserves Task Force. This report represents a significant step forward in encouraging stewardship of Raleigh's finest natural areas and significant habitats. Classifying parks as Nature Preserves will help conserve them and the high quality recreational experience they offer. We support the criteria, and the list of proposed sites. The Task Force is to be commended for the careful thought that went into this effort. Please contact me if you have any questions, or we can provide additional information. I can be reached at 715-4195.

Sincerely,

Linda Pearsall

SMP/smp

1601 Mail Service Center, Raleigh, North Carolina 27699-1601  
Phone: 919-715-4195 \ FAX: 919-715-3060 Internet: [www.oneNCNaturally.org](http://www.oneNCNaturally.org)

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## **Appendix D**

City of Raleigh

Nature Preserves Task Force Report

Park Sites Evaluated as of February 2011



## **Park Sites Evaluated as of February 2011**

### **Parks Recommended for Reclassification as Nature Preserves**

- a. Annie Louise Wilkerson, M.D. Nature Preserve Park (formerly classified as Special)
- b. Horseshoe Farm Park (formerly classified as Special)
- c. Durant Nature Park (formerly classified as Metro)
- d. Lake Johnson Park (formerly classified as Metro)

### **Parks Recommended to include Protected Natural Areas**

- a. Anderson Point Park (classified as Community)

### **Parks Not Recommended for Reclassification**

- a. Apollo Heights Park (classified as Neighborhood)
- b. Kiwanis Park (classified as Neighborhood)
- c. Drewry Hills #2 Park (classified as Neighborhood)
- d. North Hills Park (classified as Neighborhood)
- e. Worthdale Park (classified as Neighborhood)



# **City of Raleigh Parks Recommended for Reclassification as Nature Preserves**



## **Annie Louise Wilkerson Nature Preserve Park (158 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

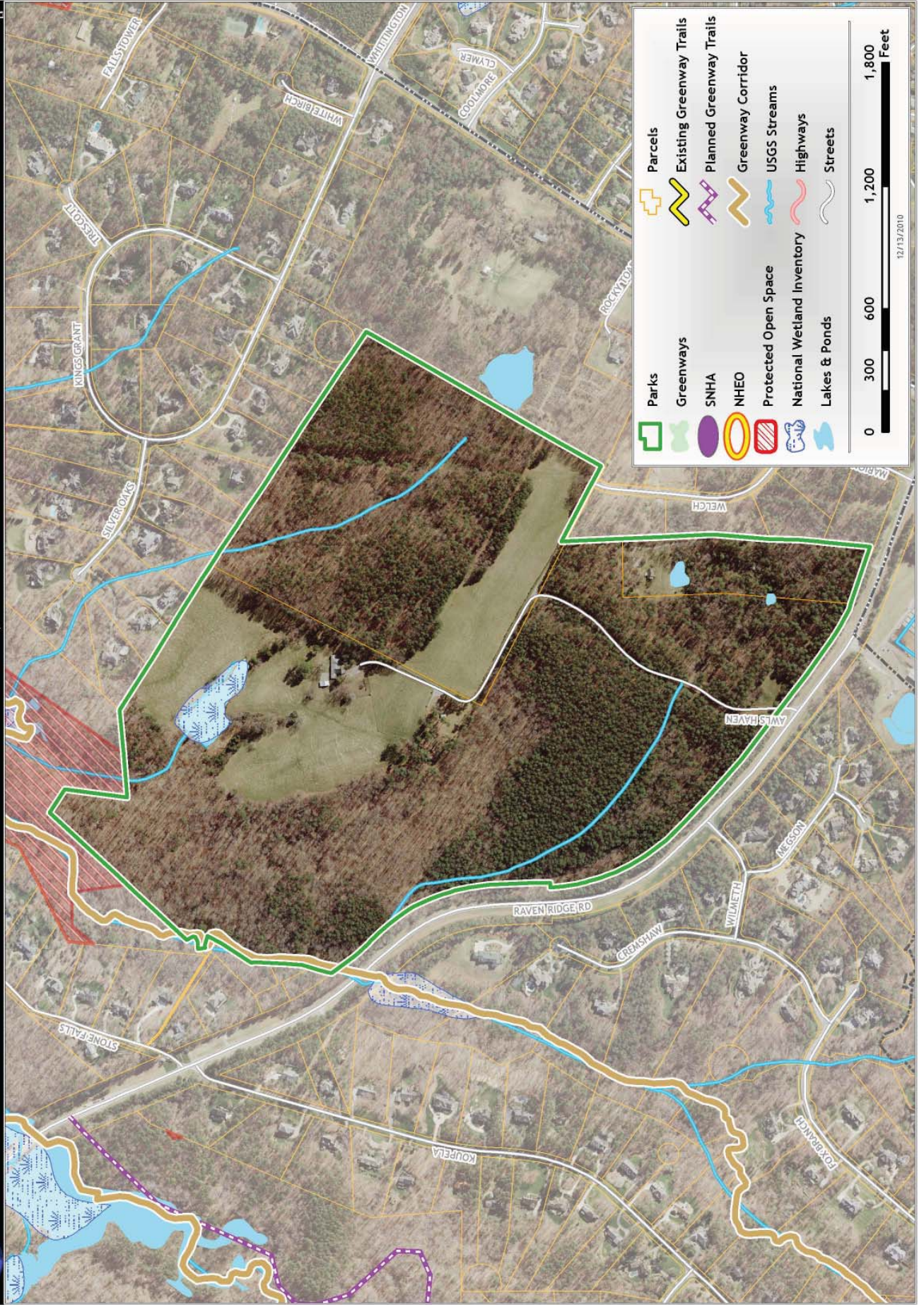
1. *Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).* There are no known Element Occurrences on this property. Habitat is present on the parcel for the federally protected species Michaux's sumac (*Rhus michauxii*) and red-cockaded woodpecker (*Picoides borealis*), however, these have not been observed on the property.
2. *Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.* No Significant Natural Heritage Areas (SNHA) occur on this property.
3. *Parcel is in close proximity to or provides connection between other properties that are currently protected.*  
Yes. Falls Lake State Park adjoins the property to the north.
4. *Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. There are three ponds (the largest 1.23 acres) and five perennial streams (tributaries to Honeycutt Creek). Approximately 22 acres of riparian buffer along the stream channels is protected by the Neuse River Riparian Buffer Rules. A jurisdictional wetland is located on the eastern portion of the property.
5. *Parcel contains hydric soils which may be indicative of wetlands.*  
Yes. 5.1% (8.06 acres) of the park property is underlain by hydric soils Chewacla and Mantachie.
6. *Parcel contains slopes (> 8%) near streams or river.* Unknown. The City of Raleigh does not currently have this data because this site occurs outside Raleigh's jurisdiction.

### **ADDITIONAL CRITERIA:**

7. *The property contains species that are uncommon as identified and mapped by staff.* Yes. Umbrella magnolia (*Magnolia tripetala*), bigleaf snowbell (*Styrax grandifolia*), wild comfrey (*Cynoglossum virginianum*), doll's-eyes (*Actaea pachypoda*), hepatica (*Hepatica americana*); Granite outcrop plants: fameflower (*Talinum teretifolium*), sandwort (*Arenaria glabra*), Virginia saxifrage (*Saxifraga virginensis*) (plant list not comprehensive)
8. *The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* Yes. Large rock outcrops and a previous stone quarry are located on the property. A granitic flatrock contains uncommon obligate plant species fameflower and sandwort.
9. *The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* Not applicable. The deed requires property to be a Nature Preserve.
10. *The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.* Yes. The property is approximately 157 acres, and is a large block of land. Falls Lake State Park adjoins the property to the north.
11. *The area can be sufficiently buffered.* Yes.
12. *Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.* Yes.
13. *The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



# Annie Louise Wilkerson, MD Nature Preserve





## **Horseshoe Farm Special Park (146 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

*1. Parcel contains species or natural communities that are endangered, threatened or rare (an Element Occurrence) as identified by the NC Natural Heritage Program (NC NHP).*

Yes. Horseshoe Farm Park contains two Element Occurrences: Floodplain Pool and Piedmont/Mountain Levee Forest. A Floodplain Pool is described by NC NHP as a small natural community containing standing water for portions of the year, usually in winter and spring. They are very important sites for egg-laying by salamanders. Floodplain pools are ranked in the state of North Carolina as S2: "Imperiled because of rarity (6 to 20 occurrences or few remaining individuals) or because of some factor(s) making it very vulnerable to extirpation from North Carolina". A Piedmont/Mountain Levee Forest is found only along the Neuse River. The Levee Forest at Horseshoe Farm is described by NC NHP as a well developed natural levee of several tiers, with lower topography behind the levees, including a few floodplain pools. NC NHP describes the forest canopy as quite varied, with no single species dominating, and possibly the tallest forest in the county.

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.*

es. Horseshoe Farm contains almost 78 acres (approximately 53.31% of the total park) of Significant Natural Heritage Area (SNHA). The SNHA is called "Upper Neuse River Floodplain" in the Inventory of Significant Natural Areas in Wake County, North Carolina, 2003.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

Yes. Horseshoe Farm is situated in the Neuse River corridor, and adjoins an additional City of Raleigh property with a large wetland to the east.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. Three Floodplain Pools, Neuse River, hundred year floodplain

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. 54.11% (78.84 acres) of the park property is underlain by the following hydric soils: hydric soil Conagree fine sandy loam, 0 to 2 percent slopes, frequently flooded; hydric soil Chewacla sandy loam, 0 to 2 percent slopes, frequently flooded; hydric soil Altavista fine sandy loam, 0 to 6 percent slopes, rarely flooded; hydric soil Warne fine sandy loam, 0 to 2 percent slopes, occasionally flooded.

*6. Parcel contains slopes (> 8%) near streams or river.*

Yes. 3.96% (5.78 acres) of the park property is covered by slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

*7. The property contains species that are uncommon as identified and mapped by staff.*

Yes. Horseshoe Farm Park contains an extensive area of native Giant Cane (*Arundinaria gigantea*), approximately 12.7 acres. Giant cane is the host plant for three butterflies: Creole Pearly Eye (*Enodia creola*), Southern Pearly Eye (*Enodia portlandia*), and Lace-winged Roadside-Skipper (*Amblyscirtes aesculapius*). Yellow corydalis (*Corydalis flavula*) is abundant and the only known occurrence in Wake County.

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* No.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* Yes. Invasives such as *Microstegium*, Japanese honeysuckle, and Chinese



privet are located in the park. There is little natural tree regeneration. Dogs running off leash is a major threat to wildlife in the park, and is against City rules. Currently there is no resident full-time staff on the site. The Master Plan includes several stewardship features, including creation/restoration of grassland and shrub habitat, and a butterfly meadow.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.*

Yes. Horseshoe Farm is 146 acres, and the horseshoe bend of the Neuse River creates a natural buffer.

*11. The area can be sufficiently buffered.*

Yes. The levee forest is buffered by the Neuse River on three sides. Creation of a “Lower Field” as recommended by the Wildlife Habitat Zones Advisory Team (WHZAT) would provide a buffer between park development and the southern portion of the park.

*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

Yes. The Master Plan supports conservation and stewardship of the park. The Master Plan calls for preserving the SNHA and Element Occurrences in the park. The Master Plan includes enhancement and restoration of natural areas.

*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*




RALEIGH


Parks and Recreation  
GIS Unit



# Horseshoe Farm Special Park





## **Durant Nature Park (242 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

*1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).*

There are no known Element Occurrences occur on this property however Durant has not been surveyed by NC Natural Heritage Program (NCNHP).

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.*

Significant Natural Heritage Areas (SNHA) are not known to occur on this property however Durant has not been surveyed by NCNHP.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

No. Currently there are no additional protected areas in proximity to the property.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.*

Yes. Upper Lake and Lower Lake are two man-made lakes measuring 16.59 acres, or approximately 6.87% of the park. Simms Branch, a perennial stream system, supplies water to the Upper Lake, then water flows through a drainage way to Lower Lake. Lower Lake empties into Reedy Branch along the north and eastern park boundaries. Lake margins contain diverse habitats with some rare plants. Wetland size from the National Wetland Inventory is approximately 37.29 acres, or 15.43% of the park. Alluvial floodplains along the streams and below the lake dams support lowland hardwoods. Multiple spotted and marbled salamander breeding pools are located on the property. Spotted Turtle have also been found on the site.

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. 15.66% (37.90 acres) of the park property is underlain by the following hydric soils: Hydric soils Wehadkee and Bibb, 0 to 2 percent slopes, consist of poorly drained soils found on flood plains and in depressions, frequently flooded for long duration. Hydric soil Chewacla, 0 to 2 percent slopes (CmA) consists of somewhat poorly drained soils on flood plains. Hydric soil Altavista, 0 to 6 percent slopes, are located on low terraces of major streams. The soils have formed in alluvial deposits under forest vegetation.

*6. Parcel contains slopes (> 8%) near streams or river.*

Yes. 15.28% (36.98 acres) of the current park property is covered by slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

*7. The property contains species that are uncommon as identified and mapped by staff.*

Yes. An diverse plant list is documented in the graduate thesis "The Vascular Flora and Plant Community Types of Durant Nature Park, Wake County, North Carolina" by James Dan Skea, Jr. (NC State University, 1982). Staff has mapped the location of many uncommon plants in the park, including: Bigleaf snowbell (*Styrax grandifolius*), Pawpaw (*Asimina triloba*), devil's bit (*Chamaelirium luteum*), fameflower (*Talinum teretifolium*), nodding ladies' tresses (*Spiranthes cernua*), slender ladies tresses (*Spiranthes lacera* var. *gracilis*), little ladies tresses (*Spiranthes tuberosa*), eastern bluestar (*Amsonia tabernaemontana* var. *salicifolia*), puttyroot (*Aplectrum hyemale*), broad beechfern (*Phegopteris hexagonoptera*), and two uncommon species of *Lycopodium*. Pink lady's slipper orchid (*Cypripedium acaule*) is present in at least five locations. This list of uncommon plants is not comprehensive.

Notable wildlife species ( listed in Wildlife Action Plan) which have recently been found on site include: breeding populations of Cooper's Hawk, Red-headed Woodpecker, Acadian Flycatcher, and Wood Thrush; Spotted Turtle, Eastern Box Turtle, Mole Kingsnake, Eastern Hognose Snake, Slender Glass Lizard, Broad-head Skink, Spotted



Salamander, and Marbled Salamander.

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.*

Yes. Three granite flatrocks and one mesic rock outcrop are located on the property.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.*

Yes, currently the conservation benefits outweigh the expense of stewardship; however, this site has some challenging issues that are threatening the quality of the site. A number of plants documented in the graduate thesis "The Vascular Flora and Plant Community Types of Durant Nature Park, Wake County, North Carolina" by James Dan Skean, Jr. have been extirpated from the site, due to issues such as stream channel erosion, siltation, flooding, invasive species, shading, and deer browse. Invasive honeysuckle is threatening the rare granite flatrocks and their associated plant communities. Invasive wisteria is extensive in the eastern portion of the park. There is a small amount of kudzu entering the park from adjacent property. Stream channel erosion and flooding have impacted both plant diversity and water quality. Trail placement has impacted plant diversity and soil quality. A high level of development surrounding the park impacts the site in numerous ways.

In addition, a number of wildlife species that were once found at the park have apparently been extirpated. Part of this has resulted simply from high park visitation and/or habitat conversion for recreational programs. In other cases breeding pools for some amphibians have been drained or filled in during utility easement construction, and stream water quality has declined overall. Heavy browsing of understory foliage has diminished habitat quality for many wildlife species.

Attempts have been made to augment remaining populations of plants and wildlife with some success, and these areas (wildflower woodlands, butterfly garden, amphibian breeding pools, eg) become focal points for interpretive programs.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.*

Yes. Durant Nature Park is a large block of land, approximately 242 acres. Adjacent properties are developed.

*11. The area can be sufficiently buffered.*

Some interior habitats and plant communities can be buffered in various ways. Other areas of the park are impacted by development of adjacent property, trail orientation, invasive species, and erosion.

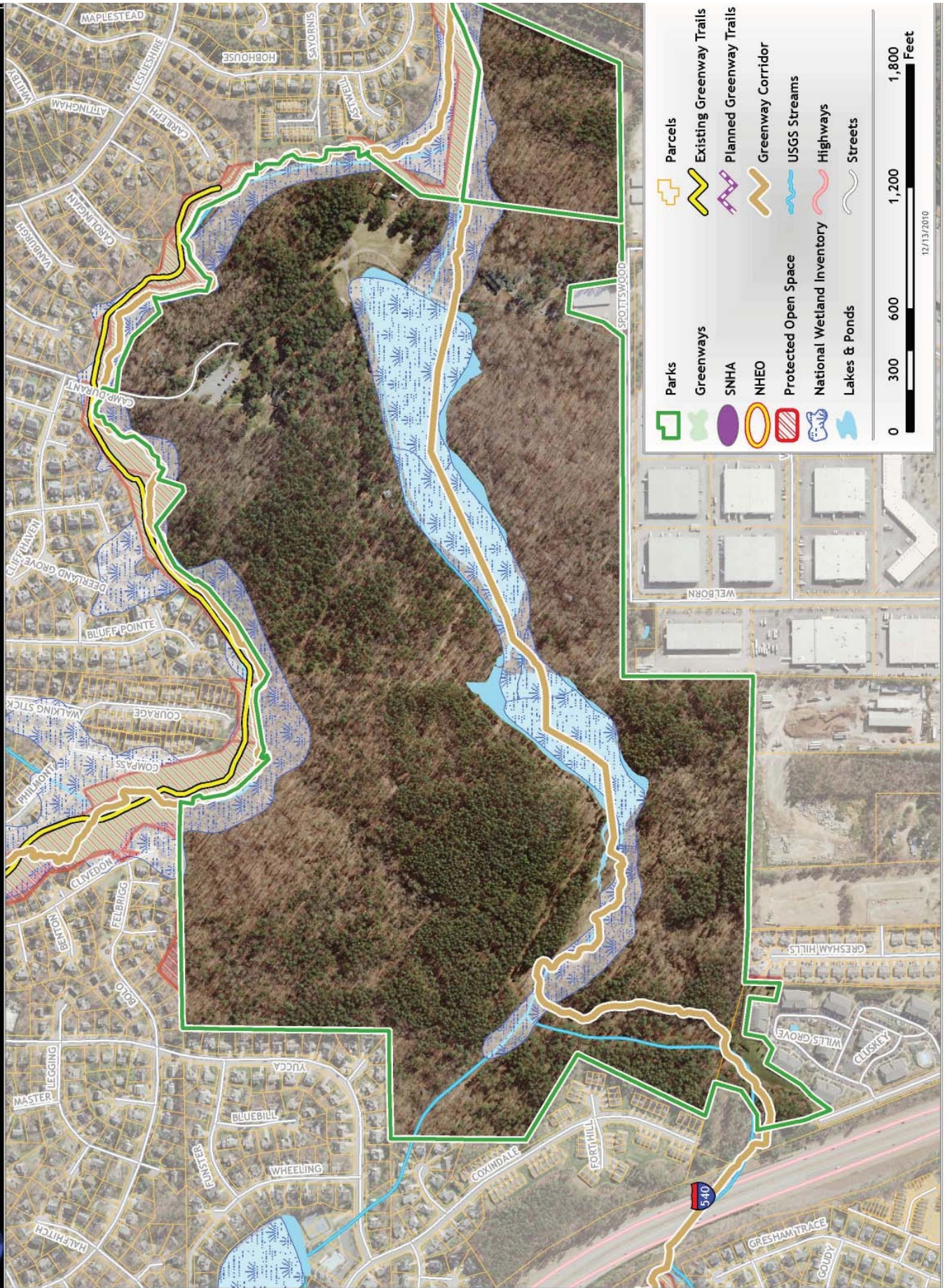
*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

Yes. Durant is currently used as a Nature Park for education and low impact recreation.

*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*

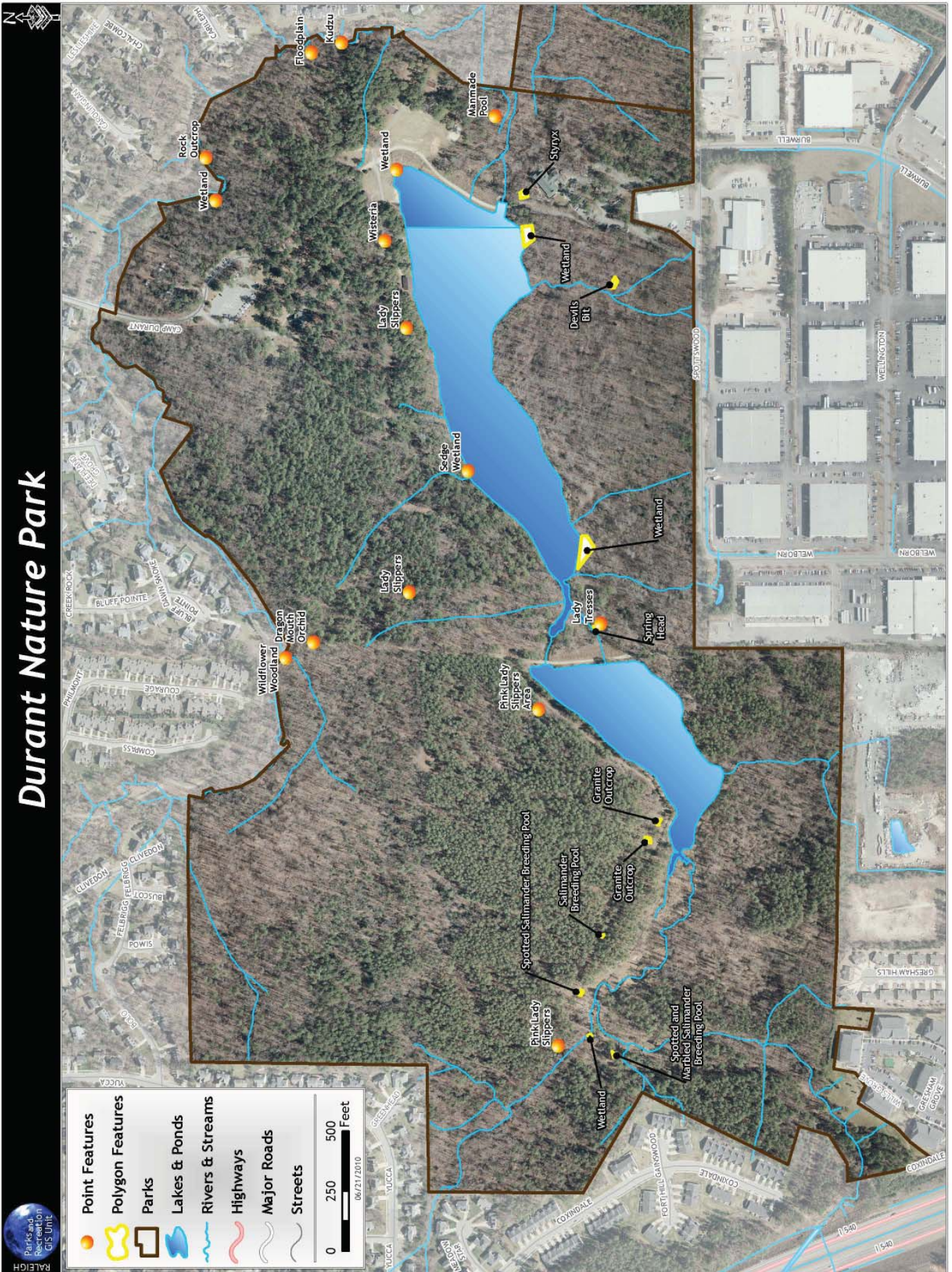


# Durant Nature Park





# Durant Nature Park





## Lake Johnson Metro Park (472 acres)

### OBJECTIVE CRITERIA: GIS Evaluation

*1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Natural Heritage Program (Element Occurrence).*

Yes. Element Occurrence of bigleaf magnolia (*Magnolia macrophylla*); at least 11 specimens of this significantly rare tree are located in the southwestern and southeastern areas of Lake Johnson Park and have been mapped; there is some limited natural regeneration; this is the only known site of this tree in the eastern Piedmont – 95% of NC populations are in Gaston County, this tree is not common even there.

County distribution of bigleaf magnolia (USDA)

Rare Piedmont Boggy Streamhead natural community (plants listed below under criteria #7)

Five mapped locations of longleaf pine (*Pinus palustris*)

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.*

Yes. Lake Johnson Park contains 125 acres (approximately 26.55% of the total park) of Significant Natural Heritage Area (SNHA). The SNHA is called “Lake Johnson Nature Park” in the Inventory of Significant Natural Areas in Wake County, North Carolina, 2003.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

Yes. Connectivity is planned between Lake Johnson and Lake Raleigh/SNHA Lake Raleigh Hardwood Forest via the Upper Walnut greenway Trail.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.*

Yes. Lake, perennial stream systems, wetlands, and floodplains are all present on the property. Numerous high quality wetlands are located in the southern section, including a rare Piedmont Boggy Streamhead Community.

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. The soils of Lake Johnson are exceptionally intricate, as shown on the attached soils map, with eighteen soil mapping units in the southern portion of the park. The intricate soils impact the plant diversity of the site, influencing the many microhabitats in the park. 1.46% (6.89 acres) of the current park property is underlain by hydric soils.

*6. Parcel contains slopes (> 8%) near streams or river.*

Yes. 21.62% (102.05 acres) of the current park property is covered by slopes greater than 8%.

### ADDITIONAL CRITERIA:

*7. The property contains species that are uncommon as identified and mapped by staff.*

Yes. The property contains numerous rare and uncommon species. The following list is not comprehensive: Bigleaf snowbell (*Styrax grandifolius*), sweetleaf (*Symplocos tinctoria*), umbrella magnolia (*Magnolia tripetala*) common near streams; rusty blackhaw (*Viburnum rufidulum*), devil's walking stick (*Aralia spinosa*), smallflower pawpaw (*Asimina parviflora*), devil's bit (*Chamaelirium luteum*), bloodroot (*Sanguinaria canadensis*), white turtlehead (*Chelone glabra*)

Pink lady's slipper orchid (*Cypripedium acaule*) present in both northern and southern sections of Lake Johnson.



Plants usually found in coastal plain: approximately 13 longleaf pine (*Pinus palustris*); Piedmont Boggy Streamhead plants: coastal fetterbush (*Leucothoe racemosa*), highbush blueberry (*Vaccinium corymbosum*), wild raisin (*Viburnum nudum*); southern bayberry (*Morella caroliniensis*), sweetbay (*Magnolia virginiana*), laurel greenbriar (*Smilax laurifolia*)

Wildlife Action Plan birds that breed at Lake Johnson include Yellow-billed Cuckoo (*Coccyzus americanus*), Eastern Wood Pewee (*Contopus virens*), and Wood Thrush (*Hylocichla mustelina*). Prothonotary Warbler (*Protonotaria citrea*) is also present. Eastern Box Turtles (*Terrapene carolina*) have been observed at Lake Johnson. These turtles are in decline and sensitive to development and capture for the pet trade.

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.*

Yes. There is an exposed rock area with cascading water in the southwestern section of the property.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.*

Yes. The southern section of the property is already maintained in a mostly natural state. There are relatively few invasives in the southern portion.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.*

Yes. The size (472 acres) and shape (a large block of land that provides both interior and edge habitats) are sufficient to maintain the conservation resources.

*11. The area can be sufficiently buffered.*

Yes. The large size of the property provides buffers within the park. The lake provides a natural buffer between the northern and southern sections of the park.

*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

Yes. The southern portion of the park is maintained in a natural state, and provides low impact recreation opportunities. Two small picnic shelters exist, and there is current consideration to place a multi-use building on the southeast portion of the site adjacent to Lake Dam Road. From a natural resource perspective the southern portion of the park is in excellent condition, with robust wetlands, good plant diversity, healthy natural regeneration, and few invasives.

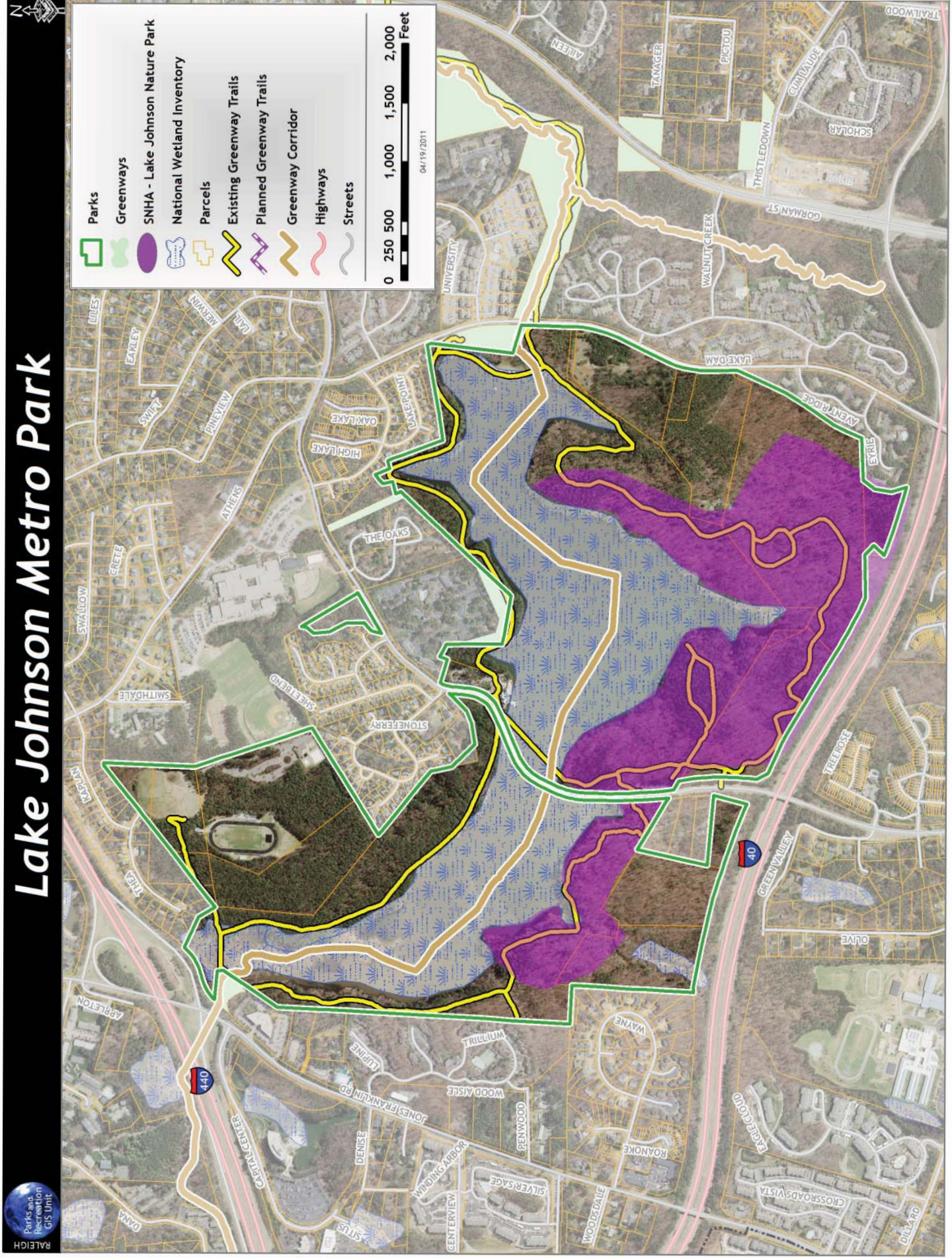
*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*

Lake Johnson is currently classified as a Metro Park, and is commonly referred to as a “nature park”. It has a wooded character and historic visitation related to the large body of water as well as pedestrian and bicycle access throughout the park. Fishing and other public uses are very popular at the Waterfront Center on Avent Ferry Road. The Park also includes a seasonal swimming pool, and an athletic stadium leased to the Wake County Public School System.



**Lake Johnson Metro Park**

**RALEIGH**  
Parks and Recreation  
GIS Unit





# Lake Johnson Metro Park Soils





## **City of Raleigh Parks Recommended to include Protected Natural Areas**



## **Anderson Point Community Park (90 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

*1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).*

No. There are no known Element Occurrences occur on this property. This area of the Neuse River formerly contained rare aquatic animal species, including rare mussels, the Neuse River Waterdog (*Necturus lewisi*), Carolina madtom (*Noturus furiosus*), and the pinewoods shiner (*Lythrurus matutinus*).

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.*

Yes. Anderson Point Community Park contains 20.75 acres (approximately 23.17% of the total park) of Significant Natural Heritage Area (SNHA) Neuse River (Clayton) Forests.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

Yes. The SNHA on this property is part of a larger SNHA of 12 river miles (or 1,200 acres) along the Neuse River. This property adjoins the Crabtree Creek corridor and the Neuse River Greenway Trail.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.*

Yes. Anderson Point Community Park is located at the confluence of Crabtree Creek and the Neuse River. Approximately 42.41% (38.17 acres) of the total park property is within the 100 year flood plain. A two acre wetland with exceptional salamander habitat and rare plants is located in the southeastern portion of the park

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. 22.96 % (20.89 acres) of the park property is underlain by hydric soil Chewacla (CmA). The hydric soil Chewacla, 0 to 2 percent slopes (CmA) is located in the proposed Protected Natural Area. Chewacla soils consist of somewhat poorly drained soils on flood plains. A seasonally high water table is at a depth of about 1.5 feet. The surface layer is sandy loam to silt loam. Natural fertility and organic matter content are low and the soils are very acidic. Infiltration is good. Surface runoff is slow. The hazard of flooding is severe, and the hazard of wetness is very severe. (Wake County Soil Survey, USGS)

*6. Parcel contains slopes (> 8%) near streams or river.*

Yes. 6.93 % (6.24 acres) of the park property is covered by slopes greater than 8%.

Soils in the proposed Protected Natural Area include Wake soils, 10 to 25 percent slopes (WkE). Wake soils are on side slopes bordering drainage ways in the uplands. Their surface layer is loamy sand or gravelly loamy sand 2 to 10 inches thick. It is underlain with loamy sand 0 to 10 inches thick. Infiltration is good. Surface runoff is very rapid. Because of bedrock near the surface and slopes, these soils should be kept in forest. (Wake County Soil Survey, USGS)

### **ADDITIONAL CRITERIA:**

*7. The property contains species that are uncommon as identified and mapped by staff.*

Yes. The property contains numerous rare and uncommon species. The following list is not comprehensive: White basswood (*Tilia americana* var. *heterophylla*), Galax (*Galax urceolata* – found in only two places in Wake



County), at least three populations of green dragon (*Arisaema dracontium*), wild ginger (*Asarum canadense*), at least eighteen specimens of mountain laurel (*Kalmia latifolia*), golden ragwort (*Packera aurea* – primarily found in Western NC)

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.*

No.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.*

Yes. A portion of the area proposed for designation as a Protected Natural Area is located in the Neuse River buffer area and currently exists as mature Piedmont/Mountain Levee Forest and Piedmont/mountain Bottomland Forest.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.*

Yes. The total size of the park is 90 acres. The Neuse River and Crabtree Creek confluence impacts the shape of the park and provides a natural buffer along the southern portion of the park.

*11. The area can be sufficiently buffered.*

Yes. The area can be sufficiently buffered with adequate management and stewardship in the park. Development regulations along the Neuse River and Crabtree Creek will help to maintain a natural buffer along the southern and eastern boundary of the Protected Natural Area. However, a Public Utility easement in the eastern portion of the park is located very close to the vernal pool/high quality wetland. Invasives, including invasive plants and fire ants, are a threat to the proposed Protected Natural Area. An easement along the western portion of the park has also impacted the area, which contains the mountain laurel and rare galax.

*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

The northern portion and interior of the park are not conducive to being a Nature Preserve.

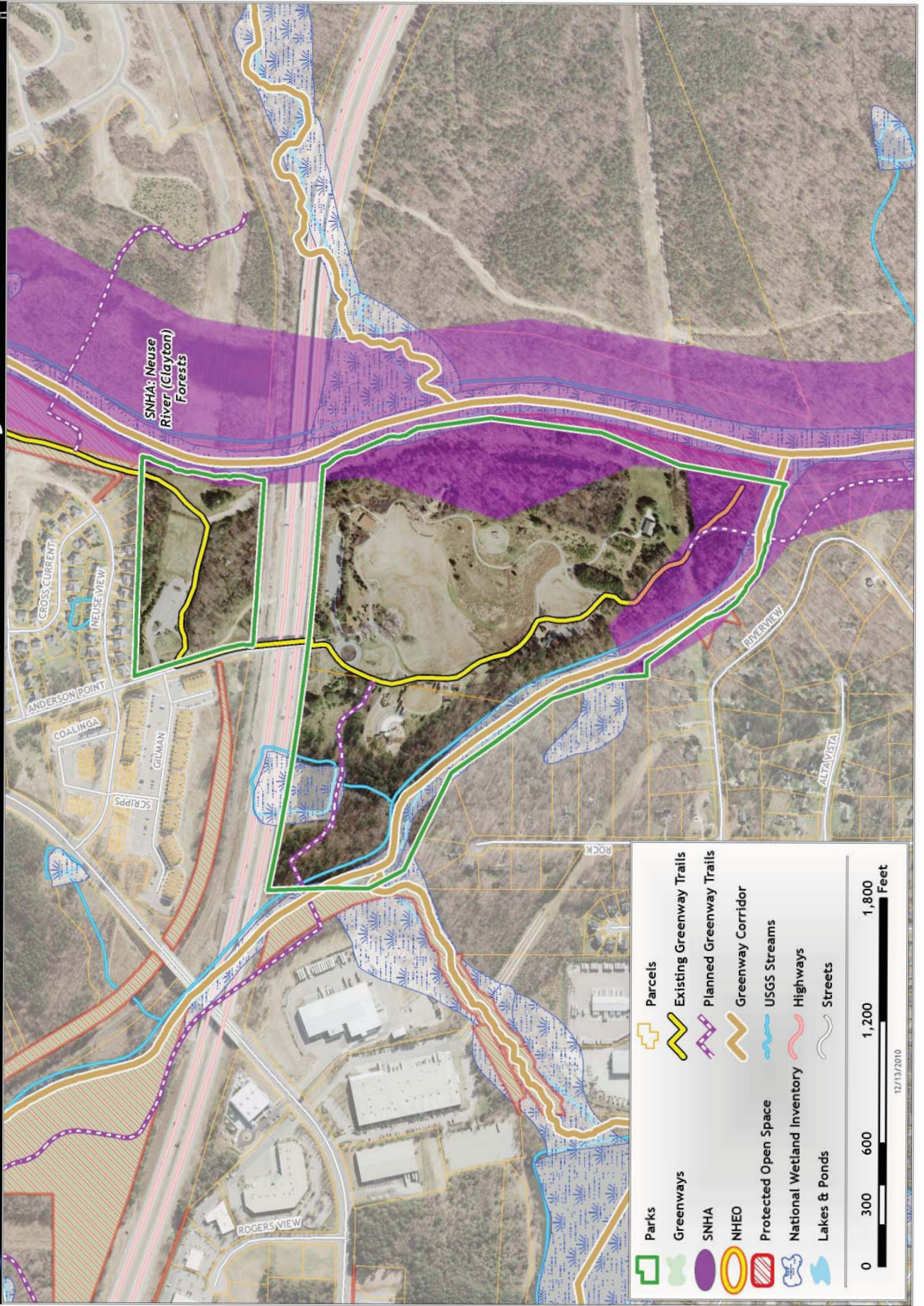
The area along Crabtree Creek and the Neuse River is proposed as a Protected Natural Area and is compatible with the existing Anderson Point Park Master Plan.

*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



# Anderson Point Community Park

Parks and Recreation  
GIS Unit  
RALEIGH





## **City of Raleigh Parks Not Recommended for Reclassification as Nature Preserves**



## **Apollo Heights Neighborhood Park (4.26 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

- 1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).* There are no known Element Occurrences occur on this property.
- 2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.* Yes, this park is within the SNHA Walnut Creek Bottomland Forests.
- 3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*  
Yes. The SNHA on this property is part of the larger Walnut Creek Bottomland Forests SNHA. This property adjoins Lower Walnut Creek greenway trail and is adjacent to Triangle Greenways Council's Apollo Heights Park.
- 4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* No. There are no significant water features are located on this property. A stream segment enters and exits the property in the northwest corner of the park.
- 5. Parcel contains hydric soils which may be indicative of wetlands.* A small portion in the southwest corner is underlain by hydric soil Chewacla (Cm).
- 6. Parcel contains slopes (> 8%) near streams or river.* 2 % (0.09 acres) is covered by slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

- 7. The property contains species that are uncommon as identified and mapped by staff.*  
No. There are no known uncommon species have been observed at this site.
- 8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.*  
No. There are no known outstanding geologic characteristics have been observed at this site.
- 9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* No. This area of the Walnut Creek system has become degraded in recent years from extremely high levels of invasive plant species. Walnut Creek flows through a highly urbanized environment and is impacted by significant urban runoff and non point source pollution.
- 10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.* No. Park is 4.26 acres, linear shape, adjacent to high density residential neighborhood.
- 11. The area can be sufficiently buffered.*  
The park cannot be buffered to the north and east due to proximity to high density residential neighborhood.
- 12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*  
No. Apollo Heights Neighborhood Park is currently developed with a Community Center, large playground, outdoor basketball courts, and a picnic shelter.
- 13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



## **Kiwanis Neighborhood Park (24.14 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

- 1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).* No. There are no known Element Occurrences occur on this property.
- 2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.* Yes. A very small portion (5.15% or 1.24 acres) of the property is within the SNHA Crabtree Creek Aquatic Area.
- 3. Parcel is in close proximity to or provides connection between other properties that are currently protected.* No. The general vicinity is highly developed. The property is connected to the City greenway system.
- 4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. Crabtree Creek on northern boundary of the park, streams located on property.
- 5. Parcel contains hydric soils which may be indicative of wetlands.* Yes. The majority of the park is underlain by hydric soil Chewacla (Cm).
- 6. Parcel contains slopes (> 8%) near streams or river.* No. The park property does not contain any slopes >8%.

### **ADDITIONAL CRITERIA:**

- 7. The property contains species that are uncommon as identified and mapped by staff.* No. There are no known uncommon species have been observed at this site.
- 8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* No. There are no known outstanding geologic characteristics have been observed at this site.
- 9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* No. The Crabtree Creek system has become degraded in recent years from invasive plant species. Crabtree Creek flows through a highly urbanized environment and is impacted by significant urban runoff and non point source pollution.
- 10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.* No. The small size is challenging to manage for conservation resources.
- 11. The area can be sufficiently buffered.* No. The park cannot be sufficiently buffered due to the high level of development in the general vicinity.
- 12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.* No. Kiwanis Neighborhood Park is currently developed with a neighborhood center, baseball field, multipurpose fields, basketball courts, playground, picnic shelter, sand volleyball courts, and greenway.
- 13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



## **Drewry Hills #2 Neighborhood Park (18.43 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

*1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).* No. There are no known Element Occurrences occur on this property.

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.*

Yes. A very small portion (9.8% or 1.8 acres) of the property is within the SNHA Crabtree Creek Aquatic Area.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

No. The general vicinity is highly developed. The property is connected to the City greenway system; however, the linear shape of the property does not sufficiently buffer the natural resources.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. Crabtree Creek makes up the southwestern boundary of the park, and several streams are located on the property.

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. The majority of the park is underlain by hydric soil Chewacla (Cm).

*6. Parcel contains slopes (> 8%) near streams or river.* The property does not contain slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

*7. The property contains species that are uncommon as identified and mapped by staff.*

No. There are no known uncommon species have been observed at this site.

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* No outstanding geologic characteristics have been observed at this site.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* No. The Crabtree Creek system has become degraded in recent years from invasive plant species. Crabtree Creek flows through a highly urbanized environment and is impacted by significant urban runoff and non point source pollution.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.* No. Linear shape of the property is challenging to manage for conservation resources.

*11. The area can be sufficiently buffered.*

No. The park cannot be sufficiently buffered due to the high level of development in the general vicinity.

*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

No. Currently the park provides a greenway trail close to Crabtree Creek. The condition of the property is not conducive to being a Nature Preserve.

*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



## **North Hills Neighborhood Park (32 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

1. *Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).* No. There are no known Element Occurrences occur on this property.
2. *Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.* Yes. A very small portion (2.16% or 0.69 acres) of the property is within the SNHA Crabtree Creek Aquatic Area.
3. *Parcel is in close proximity to or provides connection between other properties that are currently protected.* Yes. The general vicinity is highly developed. The property is connected to the City greenway system.
4. *Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. Crabtree Creek flows through the southwest portion of the park, and several streams are located on the property.
5. *Parcel contains hydric soils which may be indicative of wetlands.* Yes.
6. *Parcel contains slopes (> 8%) near streams or river.* 39% (12.48 acres) of the property is covered by slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

7. *The property contains species that are uncommon as identified and mapped by staff.*  
No. There are no known uncommon species have been observed at this site.
8. *The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* No outstanding geologic characteristics have been observed at this site.
9. *The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* No. The Crabtree Creek system has become degraded in recent years from invasive plant species. Crabtree Creek flows through a highly urbanized environment and is impacted by significant urban runoff and non point source pollution.
10. *The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.*  
No. The small size and linear shape of the property are challenging to manage for conservation resources.
11. *The area can be sufficiently buffered.*  
No. The park cannot be sufficiently buffered due to the high level of development in the general vicinity.
12. *Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*  
No. North Hills Neighborhood Park is currently developed with a baseball field, lighted tennis courts, playground, large picnic shelter, and greenway.
13. *The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



## **Worthdale Community Park (36 acres)**

### **OBJECTIVE CRITERIA: GIS Evaluation**

*1. Parcel contains species or natural communities that are endangered, threatened or rare as identified by the NC Heritage Program (Element Occurrence).*

No. There are no known Element Occurrences occur on this property.

*2. Parcel contains identified area or species within the Wake County Natural Areas Inventory as identified by the NC Natural Heritage Program.* Yes. A very small portion (10.8% or 3.89 acres) of the property is within the SNHA Walnut Creek Bottomland Forests.

*3. Parcel is in close proximity to or provides connection between other properties that are currently protected.*

Yes. The SNHA on this property is part of the larger Walnut Creek Bottomland Forests SNHA. This property ad-joins Walnut Creek greenway property and Walnut Creek North Metro Park.

*4. Parcel contains appreciable water features in the landscape, such as wetlands, lakes, ponds, perennial stream systems, or floodplains.* Yes. Several streams and floodplains are located on the property.

*5. Parcel contains hydric soils which may be indicative of wetlands.*

Yes. % of the park is underlain by Mantachie (Me) soils along the stream corridors.

*6. Parcel contains slopes (> 8%) near streams or river.*

Yes. 12% (4.32 acres) of the park property is covered by slopes greater than 8%.

### **ADDITIONAL CRITERIA:**

*7. The property contains species that are uncommon as identified and mapped by staff.*

No. There is no known uncommon species have been observed at this site.

*8. The property contains outstanding geologic characteristics, such as cave, waterfall, cliffs, granite outcrop, etc. as identified and mapped by staff.* No outstanding geologic characteristics have been observed at this site.

*9. The conservation benefit outweighs the expense of stewarding the property due to location, maintenance of structures, resource management (invasives), liability, multiple owners, trespassing concerns, irreparable contamination, cost prohibitive cleanup, or other factors.* No. This area of the Walnut Creek system has become degraded in recent years from extremely high levels of invasive plant species. Walnut Creek flows through a highly urbanized environment and is impacted by significant urban runoff and non point source pollution.

*10. The property is of sufficient size and shape that its conservation resources are likely to remain intact, even if adjacent properties are developed; or sufficient neighboring property is either already protected or to be included as to achieve the same result.* No. The small size of the property is challenging to manage for conservation resources.

*11. The area can be sufficiently buffered.*

The park cannot be sufficiently buffered to the north, west, or east due to proximity to high level of development.

*12. Compatibility of existing use or condition, in whole or part, is conducive to being a Nature Preserve.*

No. Worthdale Community Park is currently developed with a Community Center, playground, outdoor basketball court, tennis courts, ball fields, and a large picnic shelter.

*13. The larger context for Park Planning should be considered when designating new Nature Preserves and Protected Natural Areas.*



## Executive Summary

The City of Raleigh Parks and Recreation Department has developed a System Integration Plan for an undeveloped property on Forestville Road in northeast Raleigh. The intent of the System Integration Plan (SIP) is to document existing site conditions and develop a set of guidelines for interim management of the property until a Master Plan is developed. The site specific System Integration Plan is developed with input from the Parks, Recreation and Greenway Advisory Board. A draft SIP is presented to the public through notification of adjacent and nearby property owners, Citizen Advisory Councils, registered neighborhood groups, and registered park support groups. The public will be encouraged to provide comments at a formal presentation of the SIP to the Parks, Recreation and Greenway Advisory Board. The SIP will be submitted to City Council.

The SIP includes background research on the property and involves site visits by a variety of contributors with expertise in different areas. A detailed natural resources inventory is included in the SIP. The Forestville Road property includes a perennial stream and a granite outcrop plant community. There are no known occurrences of protected plant or animal species on the property. The North Carolina Wildlife Resources Commission and United States Fish and Wildlife Service were consulted to assist in determining the likelihood of the presence of protected species on the property. Forest resources were evaluated and recommendations are provided to satisfy the City of Raleigh Tree Conservation Ordinance.

Several structures remain on the property from previous homesteads. The cultural resources and historical background of the property are unique, as the site belonged to farmer Kearney Upchurch and his descendents since the early 1800s. One of the structures on the property is reported to be an old slave cabin. Detailed historical research on the Forestville Road property is included in the SIP.

Interim management recommendations proposed for the Forestville Road property are organized into three categories: Safety, Environment, and Property Issues. Highlighted recommendations include abandonment of two groundwater wells, installation of signage on structures, and facilitation of road maintenance on Oak Hill Drive to reduce erosion. It is recommended that the City of Raleigh contract for an architectural and cultural assessment of the buildings and grounds. All structures on the property should be retained in their current condition until the assessment has been completed.

The City of Raleigh Land Stewardship Coordinator will be responsible for initiating requests to appropriate staff to conduct the interim management tasks. The SIP is intended to be a useful tool to facilitate site management and land stewardship and is a baseline document to promote ongoing site inventory, evaluation, and management.