System Integration Plan
Forestville Road Property
Raleigh, North Carolina

Raleigh Parks and Recreation Land Stewardship
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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 for final action.

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.
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Introduction: What is a System Integration Plan?
The System Integration Plan (SIP) is a sub-section of the overall City Park Master Planning process described in City of Raleigh Council Resolution (2003) – 735 (Appendix A). The City of Raleigh Parks and Recreation Department undertakes a public master plan process to help determine the specific elements that are desired in a particular park. The purpose of the site specific System Integration Plan is to develop a set of guidelines for the interim management of parkland prior to the initiation of a Master Plan. The SIP will document existing site conditions and constraints, establish the park’s classification consistent with the Comprehensive Plan, and if applicable, any proposed special intent for the park. The SIP is not intended to restrict the Master Plan Process. A System Integration Plan Conceptual Flow Model demonstrates the interaction between the City of Raleigh Park Plan, acquisition of a park property, the City of Raleigh Parks staff, the public, City Council, and the Parks, Recreation and Greenway Advisory Board (PRGAB) in the SIP process.
The SIP process promotes civic engagement through public notification and opportunities for public comment. The SIP process involves notification to adjacent and nearby property owners, Citizen Advisory Councils (CACs), registered neighborhood groups, and registered park support groups. The City of Raleigh maintains an SIP web page to provide updates and links to existing SIP documents. The public has the opportunity to provide comments to the site specific SIP through email or other written communication, and will also be encouraged to provide comments at a formal presentation of the SIP to the Parks, Recreation and Greenway Advisory Board. A meeting notification sign is posted at the park site 14 days prior to the formal PRGAB presentation. A “Comments and Records” section for this SIP follows the Appendices.

The SIP process involves collaboration among multiple City of Raleigh staff, as well as review by outside agencies, Parks and Recreation Greenway Advisory Board and City Council. City of Raleigh departments involved in developing a System Integration Plan include Design/Development, Facilities and Operations, Urban Forestry, Transportation, Public Utilities, Parks Maintenance, and City Planning. Review and collaboration by outside agencies includes agencies such as the Raleigh Historic Districts Commission, the USDA Natural Resource Conservation Service, the North Carolina Wildlife Resources Commission, and the United States Fish and Wildlife Service. A list of contributing staff and agencies is included in Appendix B.

Comprehensive Plan Classification
Parks, Recreation, and Open Space is an important element of the City of Raleigh 2030 Comprehensive Plan. “This Element addresses park planning and acquisition, greenway and trail planning and connectivity, open space conservation, capital improvement planning, and the preservation of special landscapes” (Raleigh's 2030 Comprehensive Plan, City of Raleigh Department of City Planning). At the time of this report, the City of Raleigh has 5,670 acres of park land and 3,464 acres of greenway property. As the City continues to expand there is a need for additional parks to meet the needs of the community.

Six key Vision Themes have been identified in the Comprehensive Plan as overall goals for the City of Raleigh: Economic Prosperity and Equity, Expanding Housing Choices, Managing Our Growth, Coordinating Land Use and Transportation, Greenprint Raleigh – Sustainable Development, and Growing Successful Neighborhoods and Communities. Each of these Vision Themes is applicable to the Parks, Recreation, and Open Space element.

Economic Prosperity and Equity
High quality parks, recreation facilities, and open spaces will provide added value and amenities to the community, which in turn will attract jobs, workers, and greater economic prosperity to the area. Evenly distributed park and recreation facilities, accessible to residents throughout the City, promotes the goal of equity.
Expanding Housing Choices

Parks, recreation and open space opportunities must be developed in tandem with new housing. Providing leisure facilities in proximity to housing reduces the need to rely on fossil fuel vehicles. The issue is particularly important for affordable housing, as many lower-income residents have reduced access to private vehicles, limiting their ability to travel to distant parks, and making pedestrian, bike, and transit access all the more critical.

Managing Our Growth

The need for new parks and recreational facilities in the coming decades will require that substantial acreage be acquired by the City for park development. Land can be acquired in advance of development, at lower cost and in appropriate locations, to develop the parks and recreational opportunities that the future residents will require.

Coordinating Land Use and Transportation

Parks are a significant land use and a source of travel demand. Therefore their location and design should be coordinated with the City’s transportation infrastructure (including greenway trails) to maximize access by multiple modes and to mitigate impacts on congestion.

Greenprint Raleigh – Sustainable Development

Sustainable design and green building is increasingly becoming a part of parks and recreation facilities design. Networks of interconnected parks, greenways, and open spaces (green infrastructure) can direct urban form and guide conservation efforts. Green infrastructure ensures that preserved open spaces and greenways provide greater environmental benefits by maximizing ecosystem conservation.

Growing Successful Neighborhoods and Communities

The parks and open spaces within Raleigh serve the daily leisure needs of the community. The spaces and programs promote the social, cultural, mental, and physical well-being of the community. In a broader sense, they promote a more livable community, a higher quality of life and lend a sense of place and belonging to the community and its residents.
The City of Raleigh Comprehensive Plan established a park classification system to provide a diverse, well-balanced, well-maintained range of recreational opportunities. The five park classifications are: Neighborhood Parks, Community Parks, Metro Parks, Special Parks, and Nature Parks and Preserves. The site first known as NPS 16 (neighborhood park search) and now called the Forestville Road property was purchased to satisfy a documented need for neighborhood parks in the Northeast Planning District. (Budget and Econ. Devel. Comm minutes, July 27, 2004). At the time of this purchase the NE Planning District needed eleven (11) additional neighborhood parks (Raleigh Parks Plan, May 2004, Chap 7, Recommendations p 45). Neighborhood Parks are expected to serve the basic daily recreational needs of the surrounding neighborhoods. They most often include playgrounds, court surfaces such as basketball, tennis or volleyball, and open space or multi-use turf areas. Depending on the size, topography and other site characteristics, neighborhood parks may serve other needs as determined by the master planning process, proximity to other parks and greenway lands, and overall Parks and Recreation Department program needs. Smaller sites may be limited to very few elements; larger sites may present opportunities for elements such as walking tracks, athletic fields or neighborhood center buildings. In some cases deed restrictions or environmental requirements may dictate the options available.

In general, the number of acres of existing neighborhood parkland compared to the expected population of an area is used to try to meet a Level of Service (LOS) of 2.6 acres of parkland per 1,000 population. Other considerations, such as the size and character of existing parks in the area, barriers to access (such as major thoroughfares), availability of opportunities for future acquisition, and other elements of the City of Raleigh Comprehensive Plan are also taken into account when acquiring parkland.

A map on the following page shows City of Raleigh parks in the vicinity of the Forestville Road property and Future Land Use projected for the year 2030. The undeveloped Watkins Road Community Park (38 acres, purchased in 2003) is approximately 1.5 miles northeast of the site. A 92 acre undeveloped Community Park site known as Alvis Farm is located approximately 3.5 miles southwest of the Forestville Road property. A System Integration Plan for Alvis Farm was completed in 2007. Buffaloe Road Athletic Park is a Metro Park located approximately 2.5 miles west, and offers complementary facilities to those typically found in a Neighborhood Park (playground, ball fields, trails, open space and opportunities for enjoying a natural setting) and will include an aquatic center.

Natural resource-oriented recreation opportunities are accessible at park sites in proximity to the Forestville Road property. Buffaloe Road Athletic Park provides recreation trails within a substantial natural area conserved as stream and river corridor and buffers, a 15.5 acre wetland with a boardwalk trail, access to the city’s greenway system, and in the future will provide access to the Neuse River. Horseshoe Farm is classified as a Special Park and is located approximately 4 miles north. This park offers a wide spectrum of outdoor recreation opportunities. Examples of opportunities proposed to take place at Horseshoe Farm Park include Neuse River Greenway access, primitive passive woodland and birding trails, and various native meadows. Future developments may include river canoe access, and an environmental education center and earthen amphitheatre for programming. Development of new park land, such as Watkins Road Community Park and Alvis Farm Community Park, typically includes conservation land in the form of buffers and officially designated Tree Conservation Areas.

Additional natural resource-oriented recreation opportunities in proximity to the Forestville Road property include the City of Raleigh greenway trail system, a network of recreational trails and public open spaces that provide opportunities for a range of activities including biking, running, hiking, fishing, picnicking, bird watching, and nature study. Hundreds of acres of conservation land are located in the general vicinity of the Forestville Road property in...
the form of the major greenway corridor up and down the Neuse River. The nearest planned greenway trail to the Forestville Road property is the Neuse River Greenway Trail which will be accessible approximately 1 mile west.

As of the date of this SIP report, no additional park land acquisition has been completed in the general vicinity. Neighborhood Parks are intended to provide recreation opportunities for residents within (but not limited to) a ½ mile radius. At the time of this report, there is no special intent proposed for the site. The Forestville Road property will serve as the Neighborhood Park resource for future residents of the Forestville Road area north of Buffaloe Road.
Site Description: The 26.29 acre site formerly known as NPS 16 and now called the Forestville Road property is located at **4913 Forestville Road** just north of Buffaloe Road in northeast Raleigh. The park site is outside of the City limits but is within the City’s planning jurisdiction (Raleigh Extraterritorial Jurisdiction, or ETJ). This property is located in the Northeast Planning District, and the Citizen Advisory Council (CAC) District is Northeast. The site is zoned as Residential-4 (R-4). This undeveloped park site is part of the former Upchurch property, farmed by Kearny Upchurch and his descendents since the 1800s. Adjacent property is mostly vacant or undeveloped. The Forestville Road property is bordered to the north by Oak Hill Drive, currently gated and unused.
The site is bordered to the east and south by a 30 acre lot that previously contained a mobile home park (visible in the 1996 aerial photo included in this report) with access only from Oak Hill Drive. This lot is currently vacant with substantial debris remaining on site. There is a 5.5 acre residential lot located at the northeast corner of the Forestville Road property. There is an area of low density residential housing to the south. The vicinity of the Forestville Road property is semirural in nature, with undeveloped wooded areas, agriculture, and low-density residential neighborhoods. Forestville Road (also known as SR 2049) is a moderately well traveled road in existence for over 170 years and was a popular route to Wake Crossroads. Forestville Road is a NCDOT maintained road listed in the City of Raleigh Comprehensive Plan as a major thoroughfare. The City will be required to dedicate Right of Way (ROW) and slope easement and contribute funds for future road improvements when park development begins. The Forestville Road property is accessed from a gravel drive off Forestville Road. Adequate property boundary signage exists along the perimeter of the parcel, and at Oak Hill Drive. The site is mainly wooded, with some areas of old pasture and cleared land near structures. A stream runs north through the property.

Existing Facilities and Site Conditions: A Phase 1 Environmental Site Assessment was completed in 2004 for the Forestville Road property during the site acquisition process. During site acquisition the property was called the Poole tract (the seller name); the Executive Summary of this report is included in Appendix C. The Phase 1 report concludes no significant evidence of environmental contamination or environmental impairment in association with the property. Following review of the Phase 1 Report, site investigations were conducted with assistance from Vann Wester, City of Raleigh Facilities and Operations Assistant Superintendent and Brian Taylor, City of Raleigh Safety Coordinator.

The site contains four structures from previous homesteads. A red workshop with a small barn attached and a well house are located on the northwest area of the tract. On the southwest area of the tract there is a log cabin and a feed stable. The log cabin, feed stable, and red workshop are discussed in more detail under the “Cultural Resources and Historical Site Use” section of this report. The well house is a recent addition to the site, added by the most recent resident Mr. Poole. A second older well is located near the well house. Three additional structures (two mobile homes and one modular home) were previously located on the property at the time of property acquisition. The location of these residences can be seen in the 1996 aerial photo of the site used in the site description map. The seller was allowed to remain on a portion of the property for a period of three years following sale of the property in 2004. The seller was responsible for removal of the three residences at the termination of the occupancy period. The mobile homes and modular home have been removed however there are still facilities remaining on site associated with the mobile homes, including septic tanks and pipes, wires, and aboveground concrete boxes.

Two electrical transformers were observed in the western area of the parcel during the Phase 1 Environmental Site Assessment. During a site visit in July 2009, no electrical transformers were visible on site, and Progress Energy confirmed that their equipment, meter and wire were removed from the site. The electrical box remaining on site marked as JL56BF does not belong to Progress Energy. This electrical area could be used as a future power source for site utilities. There is a safety pole light (7C740) located on the parcel that still may have power, and Progress Energy has initiated a work order to remove the line and pole.
There is an overhead utility pole corridor along the eastern boundary of the property (see photo below) that may have been used to service the mobile home park previously located east of the parcel. Cable and phone utilities were observed on the parcel during the Phase 1 Environmental Site Assessment, and remaining aboveground cables were observed by Parks staff in July 2009. Services to these wires are disconnected.

The Phase 1 Report lists three septic systems on the parcel. Wake County Environmental Services was contacted but did not hold any records of septic systems for this site. Parks staff was able to identify two septic system hookups. There are two aboveground concrete boxes (see photo below) that potentially hold septic related materials. These concrete boxes are currently secured with caulk.

Deed Restrictions

In 1966 the 200 acre estate of W. I. Upchurch was sold and divided into ten parcels, of which the Forestville Road property was tract #7. The Land Title for the Forestville Road parcel has the following “Exhibit A”:

Tract 7 (currently known as the Forestville Road property) is defined as “All that certain parcel or tract of land fronting on State Road #2049 (Forestville Road) having a distance of 637.8 feet and being designated as Tract 7 containing 25.128 net acres according to a map entitled “Estate of W. I. Upchurch, near Wake Crossroads, Wake county, North Carolina” dated September 1966, and prepared by C. W. Russum, R.L. S., a copy of said map being recorded in Book of Maps 1966, vol. 2, Page 164, Wake County Registry. EXCEPTING AND RESERVING, HOWEVER, from said Tract 7 a perpetual easement for ingress and egress 30 feet in width along the roadway shown on said map, said easement being appurtenant to and for the benefit of Tracts 8, 9, 10-A and 10-B, and the portion thereof conveyed to J. E. Montague and wife, Hallie U. Montague, by deed dated June 10, 1947, and recorded in Book 966, Page 317, Wake County Registry, containing 1.49 acres.”

A City of Raleigh attorney has reviewed the Land Title for the Forestville Road property as it relates to maintenance responsibilities for Oak Hill Drive. The Land Title allowed the reservation of easement on Oak Hill Drive for the purposes of ingress and egress, without specifying details on who is required to maintain the road. Generally, the tracts benefiting from the ingress and egress would share in road maintenance responsibilities (Tracts 8, 9, 10-A, and 10-B). The City of Raleigh has an obligation to not obstruct the road.
Inventory of Natural Resources: Soils, Water Resources, Flora and Fauna
City of Raleigh Parks staff conducted site investigations in December of 2008, and May, June, July, and October of 2009 in order to observe site characteristics during all four seasons. Flora and fauna identification will be ongoing at this site.

Soils of the Forestville Road Property
The following soil data was created in 1999 by the USGS and the North Carolina Center for Geographic Information and Analysis. The Forestville Road property has predominantly sandy soils. The stream has some areas of steep slope. There are areas of exposed rock scattered throughout the site (see photo below). In several portions of the forest there are areas with large exposed boulders and flat granite outcrop. There are also very shallow soils on top of rock near the old pasture in the southwest portion of the site, supporting an uncommon plant community. Along Oak Hill Drive exposed rock is visible, indicating the extreme level of erosion that has occurred on this road.

The Forestville Road property is underlain by the Appling-Louisburg-Wedowee soil association. This soil association is described in the 1970 Wake County Soil Survey as gently sloping to steep, deep and moderately deep, well-drained and somewhat excessively drained soils that have a subsoil of very friable coarse sandy loam to firm clay; derived mostly from granite, gneiss, and schist. This soil association is described as being droughty in many places. The 1970 Wake County Soil Survey describes the major soils of this association to have moderate to severe limitations to use as absorption fields for septic tanks, no special limitations if they are used to support foundation footings for large buildings, and a main limitation of bedrock near the surface for road construction. The Louisburg soils of Wake County are strongly acid and are low in natural fertility and content of organic matter (Cawthorn 1970).
There are seven soil mapping units within the property, all of which are sandy loam or loamy sand, and susceptible to erosion. None of these units are hydric soils.

**VaB2**  
**Vance Sandy Loam 2 to 6 percent slopes, eroded**  
This soil is on smooth inter-stream divides in the uplands. The surface layer is 4 to 7 inches thick. The subsoil is 8 to 30 inches thick and consists of yellowish-brown to yellowish-red very firm clay to sandy clay that has common mottles of red. Infiltration is fair, but permeability is slow and surface runoff is medium. The hazard of further erosion is moderate.

**VaC2**  
**Vance Sandy Loam 6 to 10 percent slopes, eroded**  
This soil is on narrow side slopes in the uplands. Where erosion is moderate, the surface layer is 4 to 6 inches thick. Where erosion is slight, the surface layer is sandy loam 6 to 12 inches thick. The subsoil is 8 to 30 inches thick. Infiltration is fair to good, but permeability is slow and surface runoff is rapid. The hazard of further erosion is severe.

**LoD**  
**Louisburg loamy sand 10 to 15 percent slopes**  
This soil is on side slopes bordering drainage ways in the uplands. The surface layer is loamy sand 4 to 6 inches thick. The subsoil is very friable sandy loam that is 4 to 24 inches thick. Some areas have from 20 to 50 percent of the surface layer consisting of pebbles and cobbles. Infiltration is good and surface runoff is very rapid. This soil is highly susceptible to further erosion.

**WmC2**  
**Wedowee sandy loam 6 to 10 percent slopes, eroded**  
This soil is on side slopes in the uplands. The surface layer is 3 to 7 inches thick. The subsoil is 8 to 26 inches thick sandy clay loam. Included with this soil were some areas where from 20 to 50 percent of the surface layer is gravel. Infiltration is fair and surface runoff is rapid. The hazard of further erosion is severe.

**WkE**  
**Wake soils 10 to 25 percent slopes**  
These 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.

**LwC2**  
**Louisburg-Wedowee complex 6 to 10 percent slopes, eroded**  
These soils are on side slopes of medium length in uplands. The Louisburg surface layer is loamy sand 4 to 6 inches thick and subsoil very friable to loose sandy loam 15 to 30 inches thick. Infiltration is good and surface runoff is medium. The Wedowee surface layer is 3 to 7 inches thick and in many places is a mixture of the remaining surface layer and material from the subsoil. Infiltration is fair and surface runoff is rapid. For both soils, the hazard of further erosion is very severe due to the slope and bedrock near the surface.

**LwC**  
**Louisburg-Wedowee complex 6 to 10 percent slopes**  
In a typical mapped area, about 60 percent of the acreage is Louisburg soil, 38 percent is Wedowee, and 2 percent is Durham, Vance, and other soils. Included with these soils were some areas in which 20 to 50 percent of the surface layer consists of pebbles and cobbles.
Water Resources of the Forestville Road Property

A second order stream with two first order branches flows through the central portion of the property northward into an unnamed tributary of Hodges Creek and to Truby’s Lake north of the parcel. Hodges Creek joins Powell Creek then flows west into the Neuse River. The perennial stream on the site is subject to state and federal jurisdictional regulation under Section 404 of the Clean Water Act and North Carolina’s Neuse River Riparian Buffer Rules.

The second order stream located on the Forestville Road property is a perennial streambed with frequent meanders and a substrate of fine sand. There is a first order stream branch on the western portion of the property that is somewhat intermittent in nature and does not have continuous flow in all stretches of the stream length, until it joins the main stream channel near Oak Hill Drive at the northern property boundary. There are minor manmade modifications in the first order intermittent stream consisting of a small berm and small area of excavation in the western portion of the site. There is also a first order stream branch on the eastern portion of the property.

The riparian area of the stream consists predominantly of trees with dense roots stabilizing the banks, with continuous canopy coverage over the stream bed. There are some large sycamore (Platanus occidentalis) and tulip poplar (Liriodendron tulipifera) along the riparian zone of the western intermittent first order stream on the site. The riparian understory is sparse in many places however the soil is currently well stabilized in most places by tree roots. The riparian area has a low to moderate variety of species. The primary invasive plant affecting the riparian zone is Japanese stilt grass (Microstegium vimineum).
The Neuse River Riparian Buffer Rules require a 50-foot wide riparian buffer directly adjacent to surface waters in the Neuse River Basin. A 50 foot buffer would protect a total of 4.89 acres on the site. The City allows some minimal use within a buffer, however no encroachment or land-disturbing activity is allowed within 80 feet of the water edge if the average slope is between 15 and 20 percent, and within 95 feet if the slope exceeds 20 percent.

There are two small deteriorating wooden foot bridges on the western portion of the site. Refuse in the stream is typical debris such as paper, glass bottles, and occasional tires. Debris is mostly concentrated in the portion of the stream nearest Oak Hill Drive. The stream is piped under Oak Hill Drive at the north end of the parcel. The pipe is in good condition and appears to be of adequate size to control streamflow at this time. However, stormwater runoff from the eroding Oak Hill Drive threatens surface water quality to this watershed. Road stabilization of Oak Hill Drive is needed to decrease erosion. A Stream Quality Assessment was completed in July 2009 utilizing the US Army Corps of Engineers Assessment Worksheet and is included in Appendix D.

The parcel does not show any wetlands on the United States Fish and Wildlife Service National Wetland Inventory. A small area at the start of the westernmost first order stream does have characteristics of a headwater wetland. Headwater wetlands are described in the North Carolina Wetland Assessment Method as relatively dry wetlands on mineral soils at a low order stream that are irregularly inundated by surface water, seasonally saturated, or subject to long-term saturation. Hardwood trees and shrubs are the predominant vegetation in a headwater wetland. The typical plant species of a headwater wetland are present at the start of the westernmost first order stream on the property.

Wetland Indicator codes are used to reflect the range of probability that a plant species will occur in a wetland. Obligate Wetland (OBL) plants are likely to occur almost always (99%) in wetlands, Facultative Wetland (FACW) plants usually (67%-99%) occur in wetlands, and Facultative (FAC) plants are equally likely to occur in wetlands or non-wetlands. The following plant species (listed with their Wetland Indicator Status) are present in the headwater wetland area of the westernmost first order stream: Sycamore (Platanus occidentalis, FACW-), Hackberry (Celtis laevigata, FACW), American Hornbeam (Carpinus caroliniana, FAC), Tulip Poplar (Liriodendron tulipifera, FAC), and Netted Chain Fern (Woodwardia areolata, OBL).

The following description of groundwater characteristics on the parcel is from the Phase 1 Environmental Site Assessment: “The subject property is located within a geological feature known as the Raleigh Belt. Rock types at this location consist primarily of intrusive massive to foliated granitic rock. The hydrogeological system includes both the surficial sediments and underlying bedrock. Groundwater in sediments is present in pores between individual sediment grains. In bedrock, groundwater is present predominantly in horizontal and subhorizontal unloading fractures, and in near, vertical stress fractures. Groundwater depths are variable and generally approach ground surface near streams. Based on the historical groundwater flow characteristics in this area, groundwater flow typically mirrors surface topography. Accordingly, groundwater flow would be expected generally to gravitate toward the middle of the tract, then migrate from the south to north. No source of environmental contamination was identified upgradient which would significantly impact groundwater in the vicinity of the subject property.”
Flora Resources at the Forestville Road Property

As stated previously, site investigations were conducted during the months of May, June, July, October and December in order to capture various flowering periods to correctly identify plant species. Species naming follows “Flora of the Carolinas, Virginia, and Georgia, and Surrounding Areas” by Alan S. Weakley, 2008.

The majority of this parcel is forested and has been gradually reverting to forest since 1965. Much of this parcel was previously in agriculture, and the canopy and understory are young. There are former pasture fields and cleared areas in the vicinity of structures. The parcel is comprised mainly of Dry-Mesic Oak-Hickory Forest and Dry-Mesic Oak-Pine Forest. There are some areas of Granitic Flatrock. The most unique plant community on this site is the Granitic Flatrock plant community (described in more detail below) at the former pasture area in the southwestern portion of the property. A detailed plant inventory for the entire site is included in Appendix E.

Though the forest is overall quite young, some large trees exist along the westernmost stream bed. There is a grove of large sycamore (Platanus occidentalis) trees near the start of the stream behind the log cabin, and very large pine (Pinus sp.) and tulip poplars (Liriodendron tulipifera) further north along this stream. Most of the large trees are located in the Neuse River Riparian Buffer Zone. The forest is dominated by a mixture of oaks, hickories, and pines, with Sweet Gum (Liquidambar styraciflua) and Tulip Poplar (Liriodendron tulipifera) also present. Common understory species include American Holly (Ilex opaca) and Flowering Dogwood (Cornus florida). Natural tree regeneration is present and includes oak, hickory, pine, holly, maple, eastern red cedar, sweet gum, and tulip poplar.

There is a large area of downed woody debris from a past storm in the northeast corner of the property. City of Raleigh Urban Forestry staff conducted a site investigation in August 2009 and noted the potential fire hazard from the significant amount of standing dead timber and large diameter woody debris in this area. Urban Forestry staff also noted the presence of standing dead timber in the fall zone of the power lines located on the eastern property boundary. If standing dead trees are not deemed unsafe by a forestry professional, they do make excellent wildlife habitat and should be left in place if they do not constitute a hazard.

Herbs are somewhat sparse in portions of the forested areas. In open areas and the forest edge, herbs include Elephant's foot (Elephantopus tomentosa), Bare-stemmed tick-trefoil (Desmodium nudiflorum) and Muscadine grape (Vitis rotundifolia). Ferns are fairly common, particularly Christmas fern (Polystichum acrostichoides).

In an area of historically pastured land near the log cabin and feed stable is a granitic flatrock plant community in a later stage of succession with shallow soil over rock. Signature plants include Prickly pear cactus (Opuntia humifusa), Bear-grass (Yucca filamentosa), Wild petunia (Ruellia caroliniensis), and Spurred butterfly pea (Centrosema virginianum). The native plants are competing with non native pasture grasses and invasive lespedeza (Lespedeza cuneata). Pine and sweet gum seedlings and blackberry (Rubus sp.) are present in the open grassland which has not been mowed or grazed for several years.

Vegetation in the old homestead area along Forestville Road is mostly non-native planted species, including a grove of Pecan trees (Carya illinoensis). A few of the individual pecan trees are in poor condition. There is a row of Eastern red cedars (Juniperus virginiana) along the split rail fence lining Forestville Road. There are also crape myrtles, a pear tree, Southern Magnolia (Magnolia grandiflora), and invasive mimosa (Albizia julibrissin) trees.

Invasive species are common along the edges of the parcel, along stream beds, and in areas of previous homesteads. Chinese Privet (Ligustrum sinense) is particularly abundant. Japanese Honeysuckle (Lonicera japonica) is common...
Japanese Stilt Grass (*Microstegium vimineum*) is abundant in disturbed areas near the stream. Lespedeza (*Lespedeza cuneata*) is abundant in the old pasture area near the log cabin and on Oak Hill Drive. Other invasive species established on the parcel include Multiflora Rose (*Rosa Multiflora*), Periwinkle (*Vinca minor*) and Liriope (*Liriope spicata*).

**Rare and Protected Plant Species**

Michaux sumac (*Rhus michauxii*) is a federally protected plant known to occur in Wake County and listed as “Endangered” by the U.S. Fish and Wildlife Service (USFWS) *Endangered Species Act of 1973*. The Endangered Species Act requires that any action likely to adversely affect a federally protected species is subject to review by USFWS. City of Raleigh staff has conducted a thorough site survey for Michaux sumac. No specimens of this endangered plant were found.

The USFWS lists four federal plant species of concern (FSC) in Wake County: Bog spicebush (*Lindera subcoriacea*), Sweet pinesap (*Monotropis odorata*), Grassleaf arrowhead (*Sagittaria weatherbiana*), and Virginia least trillium (*Trillium pusillum* var. *virginianum*). None of these plant species are likely to have suitable conditions available on the Forestville Road property, and no specimens of these plants were observed on the site during site investigations.

The North Carolina Natural Heritage Program (NCNHP) database of rare species and unique habitats (2008) was reviewed. No element occurrences are found on the parcel.

**Tree Conservation Ordinance**

The City of Raleigh Tree Conservation Ordinance (TC-7-04) is designed to protect trees during pre-development of a site by defining allowable tree removal activity. During site development trees will be protected through establishment of Tree Conservation Areas (TCAs). Defining allowable tree removal during pre-development will prevent speculative land clearing on the site.

The following tree removals and disturbance are not allowed without a Tree Conservation Permit:

- Champion trees
- Trees in Resource Management Districts
- Trees in natural protective yards
- Timber harvests
- Trees related to installation of a use, structure, driveway, or facility improvement
- Trees related to a subdivision or a site plan
- More than 15 trees on parcels greater than or equal to 2 acres in size
- Healthy trees greater than or equal to ten inches dbh within the following protected buffer areas: 50 feet of a thoroughfare, 32 feet of a vacant property line, 65 feet of any other property line including non-thoroughfare roadways

At the time of this report, during pre-development the Forestville Road property will require a protected buffer of 50 feet at Forestville Road, a buffer of 65 feet at Oak Hill Drive and adjacent non-vacant properties, and a buffer of 32 feet at adjacent vacant properties. Currently the Oak Hill Drive property boundary and property boundaries to the east and south are forested. The property along Forestville Road has only scattered trees. Control and removal of non-native invasive tree species to promote the vigor and diversity of native trees is appropriate under the purposes of “Urban Forestry” and is allowed under the Tree Conservation Ordinance.
During site development tree preservation will be required through the establishment and protection of Tree Conservation Areas (TCAs) (Section 10-2082.14). At present, four types of Primary TCAs must be identified and established wherever they occur on a site: tree protection areas required in Resource Management Districts, Champion Trees, Neuse River Riparian Buffer Zone 2, and slopes greater than or equal to 45% adjacent to or within floodways. Most of the large trees on the Forestville Road property that will be protected under the TCA are located in the Neuse River Riparian Buffer Zone 2 (see photo below) and in the area of the headwater wetland at the westernmost first order stream. Several of the Pecan (Carya illinoinensis) trees located in the homestead area along Forestville Road are large trees due to their double or triple stems, and may be included in the Tree Conservation Areas.

At the time of this report, TCA requirements for the Forestville Road property (zoned R-4) will be 10% of 26.29 acres, or 2.63 acres. TCAs are not dedicated until the site development phase and will need to be evaluated at that time. The Neuse River Riparian Buffer Zone 2 would contribute 1.99 acres to the required TCA. The Forestville Road property does not have Resource Management District zoning. Additionally, at the time of this report there is no Metro Park Overlay District (MPOD) on the site, and no Special Highway Overlay Districts (SHODs 1-4). The Primary TCA consisting of the 50 foot Neuse River Riparian Buffer Zone 2 plus an additional .64 acres will satisfy the present 10% TCA requirement.
Fauna Resources at the Forestville Road Property
Wildlife sightings and signs observed during site investigations are recorded in Appendix F. There are fish living in the perennial stream and amphibians were abundant in the westernmost stream at the small excavation area near the start of the stream.

Staff from the North Carolina Wildlife Resources Commission assisted the City of Raleigh in developing a listing of Priority Species that may potentially occur on the property, and this list is included in Appendix G. It is important to distinguish between potential habitat and the actual presence of species. City of Raleigh staff will continue to monitor the site for the presence of Priority Species and other wildlife.

Rare and Protected Wildlife
Three wildlife species known to occur in Wake County are listed as endangered or threatened through the Endangered Species Act of 1973: Bald Eagle (Haliaeetus leucocephalus), Red-cockaded Woodpecker (Picoides borealis), and Dwarf Wedgemussel (Alasmidonta heterodon). The Endangered Species Act requires that any action likely to adversely affect a federally protected species is subject to review by USFWS.

The bald eagle is listed as federally threatened and has a threatened state status in North Carolina. No bald eagles or bald eagle nests were observed during field investigations of the parcel. The NCNHP has no records of known bald eagle populations on the parcel. Development of the Forestville Road property is not expected to adversely affect the bald eagle.

The red-cockaded woodpecker is listed as federally endangered and has an endangered state status in North Carolina. The red-cockaded woodpecker is found in open, old-growth pine stands greater than sixty years old. Much of the Forestville Road property was farmed until approximately 1965 so the forest is relatively young. No red-cockaded woodpeckers or their cavity trees were observed during field investigations of the parcel. The NCNHP has no records of known red-cockaded woodpecker populations within a one mile radius of the parcel. Development of the Forestville Road property is not likely to adversely affect the red-cockaded woodpecker.

The dwarf wedgemussel is listed as federally endangered and has an endangered state status in North Carolina. The dwarf wedgemussel is known to occur in the Neuse River basin, inhabiting large rivers to small streams. In the southern portion of its range it is often found buried under logs or root mats in shallow water (USFWS 1993). There is an abundance of downed woody debris and tree roots stabilizing the bank in the stream on the Forestville Road property. It is unknown whether dwarf wedgemussel may occur on this site, and additional investigation is needed. Agricultural run-off is a significant threat to dwarf wedgemussels, and much of the site was historically in agricultural land use. The NCNHP has no records of known dwarf wedgemussel populations on the parcel. Neuse River Riparian Buffer Rules protect 50 feet of riparian buffer along the stream on the Forestville Road property. Standard Best Management Practices to protect stream water quality during park development should be practiced.
The USFWS lists twelve federal species of concern (FSC) in Wake County. A table is included listing the habitat requirements of the twelve species, and whether suitable habitat for them is available on the Forestville Road property. The information provided in this table has been reviewed by North Carolina Wildlife Resources Commission staff.

<table>
<thead>
<tr>
<th>Species</th>
<th>Habitat Requirements</th>
<th>Habitat available on Forestville Rd Property?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachman’s sparrow Aimophila aestivalis</td>
<td>Prefer longleaf pine woodlands with grassy areas, particularly those that have been burned recently; ‘Special Concern’ in North Carolina</td>
<td>unlikely</td>
</tr>
<tr>
<td>Carolina darter Etheostoma collis lepidinio</td>
<td>Small to moderate sized streams with low current velocity, preferring substrates of mud, sand and sometimes bedrock; tolerant of fine sediments covering the substrate; ‘Special Concern’ in North Carolina</td>
<td>unlikely</td>
</tr>
<tr>
<td>Carolina madtom Noturus furiosus</td>
<td>Occupies relatively larger streams that flow into the Neuse and Tar rivers; commonly seen in mussel shells, under logs and rocks, in piles of leaves and sticks; ‘Threatened’ in North Carolina</td>
<td>unlikely</td>
</tr>
<tr>
<td>Roanoke bass Ambloplites cavifrons</td>
<td>Creeks to medium rivers with rock, gravel, sand and silt substrates</td>
<td>unlikely</td>
</tr>
<tr>
<td>Southeastern myotis Myotis austroparius</td>
<td>Roost in caves or abandoned buildings with standing water and forage over open water; Can also roost in hollow trees</td>
<td>unlikely</td>
</tr>
<tr>
<td>Southern hognose snake Heterodon simus</td>
<td>Open xeric areas with well-drained sandy soils, and river floodplains</td>
<td>unlikely</td>
</tr>
<tr>
<td>Atlantic pigtoe Fusconaia masoni</td>
<td>Inhabits mostly medium to large streams with moderate gradients, clean fast water, and sand or gravel bed under riffles</td>
<td>unlikely</td>
</tr>
<tr>
<td>Diana fritillary Speyeria diana</td>
<td>Breed in deciduous or mixed woods; feed in grasslands and shrub lands</td>
<td>unlikely</td>
</tr>
<tr>
<td>Green floater Lasmigona subviridis</td>
<td>Small to medium freshwater streams with slow current gravel and sand substrates, in water depths of one to four feet, in the Neuse River Basin</td>
<td>unlikely</td>
</tr>
<tr>
<td>Yellow lance Elliptio lanceolata</td>
<td>Freshwater streams and rivers with clean coarse to medium sized sandy substrates, rocks, and in mud in slack water areas of Neuse River Basin</td>
<td>unlikely</td>
</tr>
</tbody>
</table>
Cultural Resources and Historical Site Use
A cultural resources background study of the Forestville Road property was completed by the City of Raleigh Land Stewardship Coordinator utilizing the following data sources:
1. Historic maps at the North Carolina Department of Archives and History. The 1871 and 1878 Wake County Maps by Fendol Bevers label the property as “K. Upchurch”.
2. United States Federal Census from 1840 to 1930.
3. Deed Records from the parcel showing the sale of the property from “The estate of W.I. Upchurch” in 1966.
4. Upchurch cemetery located on Forestville Road.
5. U. S. Department of Agriculture (USDA) Natural Resources Conservation Service in Raleigh North Carolina; aerial photographs:
   a. Photo BOP-3F-188, Grid N-6, flown March 29, 1949 - USDA Natural Resources Conservation
   b. Photo flown 1954 - USDA Natural Resources Conservation
   c. Photo BOP-7FF-152, Grid N-7, flown March 15, 1965 - USDA Natural Resources Conservation
   d. Photo BOP-6MM-154, Grid O-7, flown March 5, 1971 - USDA Natural Resources Conservation
   e. Photo USDA 40 37183, 278-76, flown April 27, 1981 - USDA Natural Resources Conservation
   f. Photo flown 1991 - USDA Natural Resources Conservation
6. Phase 1 Environmental Site Assessment for Poole Tract, 4913 Forestville Road (SR 2049), Wake County, North Carolina, August 18, 2004 by GeoLogix.
8. Contact with descendents of Kearney Upchurch who are familiar with the site and the history of the Upchurch family.
9. Historical information on Kearney Upchurch and his family, provided to the City of Raleigh by Phil Upchurch, including marriage records, wills, deeds, church records, and excerpts from Wake Treasures Vol. 7 No. 2.

Following the background research, site investigations were conducted with assistance from Troy Burton, City of Raleigh Historic Mordecai Park Manager, Tania Tully, City of Raleigh Preservation Planner and liaison to Raleigh Historic Districts Commission (RHDC), and Martha Hobbs, City of Raleigh Preservation Planner and liaison to RHDC. Cultural resource information related to the Forestville Road property is available from the City of Raleigh Parks and Recreation.
The land area of St. Matthews Township that includes the Forestville Road property is labeled on the 1871 Bever’s Wake County Map as belonging to K. Upchurch. Kearney Upchurch farmed the site as far back as 1840, where he is listed on the 1840 Census along with his wife Emily Upchurch and three children. He was born in approximately 1805 in North Carolina. He was a farmer and land owner.

The Kearney Upchurch home is located approximately 900 feet south of the Forestville Road property, and is featured in Kelly Lally’s book “The Historic Architecture of Wake County, North Carolina”. Kearney Upchurch and his wife Emily are buried in a small cemetery on Forestville Road across from this Upchurch home.
Kearney Upchurch was elected deacon of Wake Cross Roads Baptist Church and was active in the Church, as evidenced by Church records. His sons James and Dallas shared in farming of this land and on the 1880 Census both sons live on the farm with their own families. The 1880 Census shows Dallas Upchurch age 39 and his family sharing a home with Kearny Upchurch then age 72. James Upchurch lived in a second home on the farm with his wife and children, including William Upchurch, then age 4. James eventually takes over the family farm, and in the 1910 Census he is listed at age 72 and living with his son William Ivan Upchurch and his family, including a son Truby age 7 (the namesake of Truby’s Lake to the north). The estate of W. I. Upchurch comprising approximately 200 acres is sold and divided into ten parcels in 1966.

In a 1949 aerial photograph of the Forestville Road property, the northeast area of the parcel appeared to be farmed, and pasture and garden areas are visible in the southwest area of the parcel. The 1965 aerial photograph shows vegetation reclaiming the northeast area of the tract, and the age of the forest in this area of the property supports this. Copies of the USDA aerial photographs from 1949 until 1993 are included in Appendix J. There are remains of an old homestead in this area of the property that have not yet been investigated. This area could contain hazards such as unmarked wells. Oak Hill Drive appears to have been installed in 1966 when the 200 acre parcel of W.I. Upchurch was divided and sold.
The most conspicuous structure on the Forestville Road property is a red workshop visible from Forestville Road (see photo below). The red workshop is evident on a 1949 aerial photograph of the area. The red workshop structure is a remaining original outbuilding from the Upchurch homestead located near the current intersection of Forestville Road and Oak Hill Drive. A main home was previously in this area near Forestville Road, as well as a tennis court that was reported to be a popular attraction for visitors to the homestead in the early 1900s. It is believed that this area was the original residence of James Upchurch and his family. The area is surrounded by a grove of over twenty pecan trees (*Carya illinoensis*). During a meeting on the site with descendents of Kearney Upchurch, the former location of the tennis court and a cotton gin were identified. The cotton gin was located on the site in approximately 1910.

The original structure has been altered with additions: a small barn to the south and a storage room to the north. The northern addition is decaying at the floor and walls, ultimately affecting the integrity of the main structure. The electrical wiring is hazardous. The red exterior paint of this structure tested negative for lead paint.

There are two rock piles in the area of the red workshop that were investigated visually to determine their character. One was found to hold a large tree stump with cut rocks piled around it, possibly remains from the older homestead. The other pile holds rocks and various other manmade debris. The City of Raleigh has not conducted any archeological studies in this area.
A log cabin (see photo below) located on the Forestville Road property is reported by descendents of Kearney Upchurch to be a former slave cabin. The structure is a one room hand-hewn notched log construction with whitewash daubing on the wall made from what was called “white dirt”. The whitewash has been touched up in more recent years with cement or plaster. The whitewash tested negative for lead. The floorboards, low ceiling, and rock fireplace are all original, however the nails and hardware appear to be mostly modern. The log cabin does need some maintenance, but is in good condition.

During the Phase 1 Report the previous landowner Mr. Poole was interviewed and indicated the log cabin used to be located further east on the tract. During an interview with John Perry and his mother, both descendents of Kearney Upchurch, it was indicated to City staff that the cabin was an old slave cabin and used to be located near the area to the east of the park site where the mobile home park was previously located. They reported that Joe Montague (John Perry’s uncle) moved the cabin in the 1950’s, carefully disassembling and reassembling the cabin exactly as it was. As reported in the slave schedule for the 1860 census (Wake Co NC) Kearney Upchurch had approximately 20 slaves. An excerpt from Wake Treasures Vol. 7 No. 2, as told by former slave Georgianna Foster reports:

“…I was born at Kerney Upchurch’s plantation twelve miles from Raleigh….We lived in little log houses…”
The current location of the log cabin is an area of old pasture that appears to have been farmed or pastured as far back as 1949. There is an old barn, or feed stable (see photo below) in this area that does not appear to be of the same vintage as the log cabin. The feed stable needs some repair but is in acceptable condition. There are two apple trees in the pasture area. This pasture area is edged with very shallow soils on top of granitic flatrock supporting an interesting plant community that is discussed in more detail in the Flora Resources section of this report.

There were no cemeteries observed on the property during site investigations. During an interview with family descendents who live in the area, it was reported to City staff that no cemeteries were located on the park site. The City of Raleigh will continue to gather information on the cultural and archeological history of this site.
Interim Management of the Forestville Road Property

Interim management of the Forestville Road property will be ongoing until future park development and the initiation of a Master Plan for this site. The System Integration Plan is not intended to restrict the Master Plan process. Updates to interim management on the site will be posted on the City of Raleigh website under “System Integration Plan”.

The Forestville Road property is monitored on a regular basis by Parks staff. Parks staff patrols the park boundaries and inspects the structures, and continues to conduct site investigations for the purposes of natural and cultural resources inventory. Parks staff holds the key to a common lock on the log cabin and the well house. Illegal dumping is monitored and cleaned up on a regular basis. Tree maintenance and other grounds maintenance is done as needed. A regular mowing schedule will begin once the site is made suitable and safe for the mowing operators. Wires and other debris must be removed, and location of hazards marked sufficiently before mowing can begin.

On undeveloped park sites with a completed SIP, the City of Raleigh Land Stewardship Coordinator shall conduct a site review on an annual basis to review existing conditions, review the status of recommended interim management activities, and determine whether interim management recommendations should be modified.

Interim Management Recommendations

The following interim management recommendations are proposed for the Forestville Road property. The interim management tasks should be completed on the site as resources and staff are available. The City of Raleigh Land Stewardship Coordinator shall prioritize the interim management recommendations and identify specific staff to complete the tasks. The Land Stewardship Coordinator will be responsible for initiating a request to appropriate staff to conduct the specific action recommended for the site.

The interim management recommendations are organized into three categories:
Safety, Environment, Property Issues

Safety

• The Forestville Road property is an undeveloped park site and therefore is not managed on a frequent basis for public safety. The property has not yet been fully evaluated for safety, and could contain unknown conditions such as unmarked wells, unstable trees, barbed wire, or other hazards. Public access to the site should be discouraged until a full site hazard evaluation and remediation is completed. Signage stating NO TRESPASSING should be placed at logical and apparent entrances to the site. Related educational information should be developed to aid in communication to neighbors and other groups that may be interested in this site.

• Two groundwater wells on site need to be abandoned.

• Old home site in central portion of property could contain unknown hazards such as old wells. This area should be marked with caution signs until evaluation and remediation is complete.

• Identify and delineate septic system locations. Septic tanks may need to be removed during future site development.
SIP: Forestville Road Property

• Unidentified aboveground concrete boxes need to be investigated and resealed or removed.

• Remove barbed wire fencing.

• Remove deteriorating wooden foot bridges from westernmost stream branch.

• Review location of hazardous trees particularly along established trails or other often frequented areas. Remove hazard trees as needed. Downed wood could be left on site for wildlife habitat.

• There is an area of significant downed woody debris from a previous storm in the southeast corner of the parcel. Areas of heavy woody debris can be a fire hazard. Currently there are not neighbors immediately adjacent to this area, however if this changes the City may consider reducing the fire hazard potential of this area. Research the potential for conducting a controlled burn in the northeast area of the site through coordination with state and federal agencies.

• Contact eastern utility line owner to coordinate felling of standing dead trees in the proximity of the power lines.

• Aboveground cables from existing non-active utilities should be removed from the site to allow safe mowing of the parcel.

• No Hunting signs should be posted on the site.

Environment
• Inventory and assess invasives and determine suitable control methods. The invasive non-native species should be managed when staff and resources are available. Priority species for removal are Mimosa (Albizia julibrissin), Chinese privet (Ligustrum sinense), Japanese honeysuckle (Lonicera japonica), and Lespedeza (Lespedeza cuneata).

• Continue inventory and mapping of natural resources including flora and fauna. Flora and fauna inventory should be added to as staff or volunteers with inventory skills are on the property for annual site inspections or work days.

• Continue to inventory pasture plant community which includes plants associated with Granitic Flatrock such as Wild petunia (Ruellia caroliniensis), Prickly pear cactus (Opuntia humifusa), and Bear-Grass (Yucca filamentosa). This plant community is worth preserving and enhancing as an educational and programming opportunity. Grassland is an important habitat type for wildlife. To maintain and enhance this area it will be important to control woody vegetation. Mowing at pasture location should be done with blades set at the highest level, and mowing should be done in increments so as to preserve some tall grassland during winter months for wildlife. Prescribed burning is a preferred method of maintenance for this type of habitat however the integrity of the adjacent log cabin and feed stable will need to be evaluated. Eventually the City should develop a management plan for this area.

• The stream would benefit from an organized stream clean up event, particularly near Oak Hill Drive. Old homestead areas should not be cleaned up until the sites have been interpreted and documented for historical background information.
The stream is being impacted by erosion from Oak Hill Drive. Neighboring landowners responsible for maintenance of this road should be notified of the problem and encouraged to take steps to alleviate the erosion. Report to City of Raleigh Stormwater Division on need for road maintenance at Oak Hill Drive, as they may have some authority to require erosion control.

Forest management may be needed on the site, for example to address storm damage or serious insect or disease infestations.

**Property Issues**

- Signage at the site should include a Parks and Recreation phone number, and possibly website information, to report non-emergency site issues.

- Continue to mow around structures to facilitate access.

- Continue to investigate cultural information for the site. Contract for an architectural/cultural assessment of the buildings and grounds. Give the Raleigh Historic Districts Commission an opportunity to inspect the buildings and grounds for a courtesy review. Retain all structures in their current condition until said assessment has been completed.

  - Log cabin: Following cultural assessment, clean out debris and large area rug from interior. The minor amount of trash in the structure can be disposed of in standard solid waste disposal system. Make minor repairs on log cabin, such as roof maintenance. Install automatic fire extinguisher inside the log cabin. Install placard and signage on the log cabin. Maintain a lock system on the structure. Lock will need to be monitored on a regular basis.

  - Feed stable: Following cultural assessment, this structure will need some roof repair as well as other minor repair and maintenance. Maintain a lock system on the structure. Lock will need to be monitored on a regular basis. Install placard and signage as appropriate.

  - Red workshop/barn: Following cultural assessment, debris should be removed from inside and underneath this structure and disposed of in standard solid waste disposal system. Install signage and placard as required for a vacant building. When the structure is utilized the original wiring should be disconnected and new wiring installed. The northern addition should be demolished because it is decaying and may ultimately affect the integrity of the original structure. A lock should be used to secure the structure and monitored on a regular basis.

  - Demolish swing shade structure.

  - Request further clean up of adjacent property to the east that previously contained a mobile home park.

  - Continue to monitor for dumping and remove debris as needed.

  - A City of Raleigh property sign is needed near the gravel access drive off Forestville Road.
**Completed Interim Management Tasks**

- Park surveyed and boundaries marked. (January 2009)
- Signage installed at Oak Hill entrance
- Inventory of natural and cultural resources started
- Boulders placed along Oak Hill Drive to discourage dumping
- City of Raleigh Attorney determined who is legally responsible for maintaining Oak Hill Drive
- The name of the site has been changed from NPS 16 to Forestville Road property
- Conducted a courtesy site review with liaisons to the Raleigh Historic Districts Commission
Appendix A

City of Raleigh

Council Resolution (2003) - 735
Resolution (2003) – 735

A RESOLUTION TO REVISE THE PROCESS FOR APPROVAL OF MASTER PLANS FOR PARK AND RELATED PROJECTS

PURPOSE: To develop a total program for a park which will best meet the needs of the community for which it is intended to serve. To insure that this purpose is met, there needs to be citizen input as well as professional planning and design. The entire process is designed to optimize public participation.

The purpose of a Master Plan for an individual piece of property is to determine the scope and character of its transformation for recreational purposes and for conserving significant environmental features. It has a relationship to the larger comprehensive recreation plan in that it fulfills some portion of the broader recreation objectives.

This resolution was developed to clarify and improve the Master Planning Process. It will serve as a helpful guideline for both the professionals and citizens involved in park planning. It is intended to replace Resolution (1988) – 195 and all other Master Planning guidelines, procedures and policies. Flow charts have been provided as visual aids. Descriptions of the park acquisition and development process have been added after the discussion of the Master Planning Process. A new element has been added to guide planning prior to the development of the Master Plan, and titled the “System Integration Plan (SIP).”

The Park Master Planning Process

I. Master Plan
A Master Plan is a conceptual design document that generally describes and guides the future management and development of a park property. Its preparation is intended to be a public process to ensure that the needs of the public are met while preserving the ecological function and environmental quality of the site. Generally, all parks should have an adopted, relatively recent (less than 15 years old) Master Plan when intended for park development.

II. Request to Initiate Master Plan
Recommendation to consider a Master Plan study (new, revised or amended) may come from a variety of sources, including: City Council, citizen request or petition, City Administration, or the PRGAB (Parks, Recreation and Greenways Advisory Board). The City Council may choose to set thresholds which (See Decision 2, Section 3) automatically trigger a public master plan process but the City Council retains the right to require a master plan for any and all park properties, including greenways and nodes on the greenways.

III. City Council Authorization
City Council shall approve the initiation of a complete Master Plan, revision or an amendment to a plan, and refer the project to the PRGAB and administration for implementation. Administration shall provide a report to Council and the PRGAB addressing available funding, project schedule, special circumstances, system integration plan, and any other background information.

IV. Select Chair/Vice Chair
Council shall initiate the formal master plan process with the designation of a Chairperson and Vice Chairperson for the Master Plan Committee, who shall also be members of the PRGAB. PRGAB shall nominate for appointment to the Master Plan Committee, however, final appointment of the Master Plan Committee shall be made by the City Council.

Chairperson/Vice Chairperson responsibilities will be to:
- Call all meetings and select the dates, times, and locations
- Preside over the meetings and invite public comment at all appropriate stages throughout the process
- Formulate meeting procedures that encourage open-discussion, well-informed decision making, and working towards an agreement. The chair will call for a majority vote as needed to finalize decisions.
- Report to the PRGAB on the progress of the Committee, notify the PRGAB of meeting times, and present the final recommendations of the committee to the PRGAB and the City Council
V. **Staff Assignment**

A core group of Parks and Recreation staff will be identified by administration for participation on the Master Plan Team. (The Master Plan Team consists of staff, design consultants, and the citizen Master Plan Committee). The core group will consist of a minimum of three staff members including the Project Manager, Parks Division Representative, and Recreation Division Representative or appropriate substitute members as the Department may determine. The committee may request other appropriate staff, such as the City Naturalist, Urban Forester, or representatives from other City departments as needed for appropriate reports. Staff will be responsible for preparing agendas for meetings, recording meeting minutes, providing background information, and insuring adequate professional input throughout the process.

VI. **Project Notification**

A. **Notification**

- A notification sign (or more if the site fronts on multiple streets) will be posted at the site 30 days before the initial public meeting.

- Meeting and project information/background shall be made available at least two weeks prior to the first meeting to the City Council, PRGAB, owners of adjoining properties, registered neighborhood groups, including CACs, and registered park support groups within a 2 mile radius for any park master plan. Other interested groups as suggested by the Public Affairs or Community Services departments, such as the Historic Districts Commission, the Appearance Commission, the Planning Commission, the Human Resources and Human Relations Advisory Commission, and Mayor’s Advisory Committee for Person’s with Disabilities, shall also be notified. Meeting and project information will be posted at community centers and at other sites suggested by the Public Affairs Department. PRGAB, City Council, Master Plan Team (and Committee) Members (once identified), or administration all may recommend concerned individuals or groups who may have an interest in the park to receive notifications and mailings.

- Project and press releases shall be posted on Parks and Recreation website(s) at least one week prior to any meetings, with appropriate linkages to other websites as suggested by the Public Affairs Department.

* A procedure for establishing registered park support groups should be developed by staff and submitted to Council for approval.

B. **Public Meeting**

A public meeting will be held to inform area residents and interested parties of the beginning of the Master Planning Process and to receive initial input, including local knowledge of natural or historic features and community desires. At this meeting, potential Master Plan Committee members may be identified from among the participants. The public meeting will be in an accessible location as close to the park site as practical.

- Notification of the Initial Public Meeting shall be posted 30 days prior to the meeting date, and mailings sent at least 14 days prior to the meeting date. The meeting date will be posted on the Parks and Recreation Department website 30 days prior to the meeting.

- The Public Meeting notice will be publicized as required by City Council, the open meeting law¹ and will be more extensively publicized where deemed appropriate by the chair, Vice Chair, or staff, utilizing appropriate consultation from the Public Affairs Department.

¹ North Carolina State statute Chapter 143, Article 33C specifies that each official meeting of a public body shall be open to the public, and any person is entitled to attend such a meeting. Every public body shall keep minutes of all official meetings. If a public body has established a schedule of regular meetings a current copy of that schedule is to be kept on file with the city clerk. Changes to the regular schedule shall be filed with the city clerk at least seven calendar days before the day of the first meeting held pursuant to the revised schedule. For any other meeting the public body shall cause written notice of the meeting stating its purpose to be posted on the principal bulletin board (Public Affairs Department) of the public body and to mail or deliver to each media service which has requested notice (Public Affairs Department handles these notices). The public body shall also cause notice to be mailed or delivered to
any person who has filed a written request with the clerk. This notice shall be posted and mailed or delivered at least 48 hours before the time of the meeting. These statutes are subject to change. The City staff should annually review these requirements with the City Attorney’s office.

**VII. Consultant Selection**

The City’s Standard Procedure 100-5 and related Management Policy 100-36 will be followed by the Parks and Recreation Department professional staff and the City Manager for drafting a Request for Proposals (RFP) and selection of the project consultant except as directed by this policy. Final selection shall be subject to final approval by the City Council following normal procedures.

For a Master Plan Amendment, which is required when a new specific use is proposed in a park that does not significantly alter the uses established by the adopted Master Plan for the park, skip items VIII through XI and proceed to XII Public Review of Draft Master Plan or Draft Master Plan Amendments.

**VIII. Master Planning Committee Selection**

- The PRGAB, after appropriate consultation with staff, shall recommend the membership and composition of the Master Plan Committee to the City Council for final appointment. The Master Plan Committee should be representative of persons with interests in the park and appropriate uses. The selection should take into account demographics of the area including age, race, gender, educational background and professional/personal experience, and other relevant qualifications related to the characteristics of the park involved.
- A minimum of twelve (12) members and a maximum of fifteen (15) members, including the Chair and Vice Chairperson, will be chosen.
- Potential members may be solicited at the Initial Public Notification Meeting, through flyer mailings, nominations from CACs and City appointed bodies, recommendations from City Council, or by posting on the City’s Parks and Recreation webpage.
- Candidates should be informed of the expected time commitment and need to attend substantially all committee meetings. Candidates unable to make the commitment of time and study should not be selected.
- Nominees for the Master Plan Committee shall be forwarded to City Council by the PRGAB for final appointment.

**IX. Education**

The Master Plan Committee shall receive background information useful to the master planning process, including:

- A Review of the expectations for full participation, including attendance at meetings and individual study to understand the process and the project.
- A description of meeting procedures by the Chair.
- The current Council approved Master Planning Policies as well as the City Conflict of Interest policies.
- Comprehensive Park, Greenway and open Space Plan and other relevant portions of the City Comprehensive Plan.
- If there is a System Integration Plan, it will be provided.
- The staff will provide an executive summary (and make the complete copy available for review by committee members) of the site inventory with additional staff comment relevant to special features identified in the inventory, and make preliminary suggestions about objectives for the park to be considered by the Committee. Detailed information should be provided on any special environmental features identified through any available sources such as the Wake County Natural Areas Inventory, the NC Natural Heritage Program Database, or the Wake County Capital Trees Program.
- Staff will arrange an appropriate tour of other facilities with relevant programming and a site visit to the target park facility.
- Formal or informal citizen survey from the park planning area if available, and a summary of the public comments that have been received.
- Information on existing or anticipated funding.
- A description of the Parks and Recreation Department organization and operations as it applies to the project, and a description of the consultant and staff roles.
All Master Plan Committee Meetings will be open to the public. It will be the staff’s responsibility to insure that the meeting dates are published in accordance with the State of North Carolina’s Open Meetings Law.

X. Master Plan Program Development
The Master Plan Committee shall develop a program statement for the Master Plan that describes the overall vision for the park, including uses, sensitivity to natural elements, identity, history and other characteristics as appropriate. The Master Plan Program should be consistent with the System Integration Plan and the Parks, Recreation and Greenways Comprehensive Plan Elements. The Program Statement should include reference to the ecological significance and functions of the site and its relationship to the larger citywide and countywide facilities and their functions, particularly with respect to watershed protection and riparian buffers.

XI. Draft Master Plan
Based on the Program Statement, the design professionals will develop alternative site related diagrams representing a range of Master Plan Alternatives. The committee will select the concept that best accomplishes the Program Statement goals.

The draft Master Plan shall include the conceptual plan rendering, the Program Statement, other background information as appropriate, a written description of the intent of the Master Plan concept proposed, including the established elements of other previously adopted Master Plans, as well as recommendations for environmental stewardship of the park site and development of the park project.

The Master Plan Committee shall identify Priorities for phased development of the project, with consideration given to information on existing and anticipated funding. This information shall be approved by the Master Plan Committee and made available for public review and comment as provided in the following section.

XII. Public Review of Draft Master Plan or Draft Master Plan Amendments
The Draft Master Plan or Draft Master Plan Amendments will be made available for public review and comment. The complete “draft” and the System Integration Plan will be displayed on the Parks and Recreation Department website, at the nearest community center to the park location, the administrative offices for the Parks and Recreation Department at Jaycee Park, or other suitable locations suggested by the Public Affairs Department. There will be comment cards available at those locations. This display should be available at least fourteen (14) days prior to the public meeting.

The public meeting will be held by the Master Plan Committee to receive comment on the Draft Master Plan prior to recommendation to the PRGAB. Public notification of this meeting shall be consistent with notification requirements in section V, “Project Notification.” The PRGAB should be encouraged to attend this public meeting. Public comments shall be received for a period of at least two weeks after the public meeting. All comments received shall be summarized in a document and provided to the Master Plan Committee and Consultant, the PRGAB, and the City Council.

Concurrently, City administration interdepartmental review of the Draft Master Plan will take place. Comments provided through this review will be summarized in written form and provided to the Master Plan Committee, the Consultant, and the PRGAB, as well as the City Council.

XIII. Recommended Master Plan
The Master Plan Committee shall review comments received and address them in the final proposed Master Plan or Amendment to be forwarded to the PRGAB for consideration. The proposed Master Plan or Amendment shall include the final conceptual plan rendering, program statement, other background information as appropriate, written description of the intent of the Master Plan concept proposed, and recommendations for phased development of the park project, as well as the established elements of other previously adopted master plans.

XIV. PRGAB Review of Proposed Master Plan
The PRGAB shall consider the proposed Master Plan or Amendment with supporting documents and report to City Council. The public will be given the opportunity to comment on the plan to the PRGAB at a meeting advertised as
prescribed in Section XI. Oral or written comments shall be accepted and transmitted with the proposed Master Plan to the City Council.

XV. City Council Review for Adoption
City Council shall receive the proposed Master plan report with recommendations and comments of the PRGAB for consideration. Final approval of any Master Plan or Master Plan Amendment lies with the City Council after they have completed their review. The City Council may choose to return the plan to the PRGAB for additional revision of key elements.

The Master Plan Committee shall stay in existence until dissolved by the City Council, and the membership will be encouraged to attend the presentation to the City Council.

General Description of the Park Development Process

For a visual representation of the park development process, please refer to the Park Development Process Flow Chart. The “Decisions” outlined below refer to the points at which a decision must be made in the process before continuing on to the next step.

I. Comprehensive Plan
The Park, Recreation and Open space element of the City of Raleigh Comprehensive Plan is the document that guides development of the city’s park system. The City Comprehensive plan projects local and regional growth patterns and public infrastructure needs including parks, greenways and open space for conservation of natural resources and preservation of our environmental quality. The overall Comprehensive plan and its influence on these specific elements must be considered in the context of park planning in order to ensure that public needs are met in the decision-making processes. Future park needs are compared with an existing inventory of park facilities over a twenty to thirty year horizon. Capital improvement funding, acquisition of park properties, classification of new park lands acquired, and master planning of specific parks should each be guided by the recommendations of the Comprehensive Plan.

II. Capital Improvement Program
The Capital Improvement Program (CIP) is a multi-year budget for implementing the Comprehensive Plan. The CIP includes capital allocations for park development projects, including land acquisition, facility development and renovation, including both park bond projects and general fund projects. The City administration reviews and updates its recommendations for the CIP annually and forwards them to the PRGAB for review and comment. Then the Administration forwards its final CIP recommendations to City Council for review and adoption.

Decision 1:
Is the land owned by the City?
(If the City already owns the park land, then skip III and IV and proceed to Decision 2 below).

III. Land Acquisition
The City Administration conducts all land acquisition for the park system with direct supervision by the City Council. Land acquisition includes identification of potential park sites, negotiation of purchase agreements with landowners, and acquisitions. All acquisitions should be consistent with the goals and objectives established by the Comprehensive plan, and must include appropriate environmental investigations and a minimal site assessment prior to recommendation to the City Council.

IV. System Integration Plan
The objective of the System Integration Plan (SIP) is to develop a set of guidelines for the interim management of parkland prior to the initiation of a Master Plan, to document existing site conditions and constraints, to establish the park’s classification consistent with the Comprehensive plan, and if applicable, any proposed special intent for the park. The SIP is not intended to restrict the Master Plan Process.

Public notification of the SIP process shall be given to the City Council, the PRGAB, the CACs, registered neighborhood
groups, registered park support groups, and appropriate City appointed bodies.

Greenway parcels and open space parcels will generally not require a site-specific System Integration Plan as the purpose and management of greenways is generally defined by the Greenway Element of the Comprehensive plan and the restrictions included in the acquisition instruments. Special segments with unique ecological features or larger nodes in the greenway system may require an SIP and/or a Master Plan. The Master Plan in these cases may equate to a General Management Plan as used by the NC Division of Parks and Recreation or adapted City Parkland Greenway Management policies.

A. SIP Elements:
1. City Council Directed Purpose
   Review and confirm any proposed purpose stated by the City Council for the development and use of the property. Utilize the baseline inventory to identify any potential conflicts with existing City policies or ordinances as well as applicable state and federal laws. Potential conflicts and proposed resolutions of these conflicts should be reported to the City Council for final approval.

2. Property Deed Restrictions
   Review the deed or purchase agreement for any restrictions, limitations, or commitments to the intended development of the property.

3. Comprehensive Plan Correlation
   The current Comprehensive Plan should provide initial direction regarding the classification of, purpose and development intent for the park acquisition. Correlation to the Comprehensive Plan recommendations should be confirmed in the City Council action to acquire the property.

4. Site Inventory
   An initial evaluation of the property will be conducted to determine the range of features and qualities of the property to provide direction and guidance for the management and future development of the property. This evaluation and management plan will be enhanced by:
   - Documentation of existing site conditions and constraints, the extent and character of natural and cultural resources, and any existing facilities.
   - Tree, flora, and fauna inventories
   - A general review of the site to determine potential stream and watercourse buffers, property buffers, and special features to be addressed in the SIP.
   - A review of development regulations for additional requirements that should be addressed in the SIP.
   - An inventory of historical data at the local and state levels to determine potentially significant features to be addressed in the SIP.
   - An inventory of archeological data at the local and state levels to determine potentially significant features to be addressed in the SIP.

The tree, flora, fauna, ecological, historical and archeological inventories should be performed by staff or consultants specifically qualified to perform such inventories. These findings shall be presented to the PRGAB for review in their entirety along with attached staff comment.

At this stage, the PRGAB should consider referral to an appropriate PRGAB committee to serve as an SIP Advisory Committee to review the findings and assist staff with interim management policies.

Any unique findings will be used initially in management decisions for the property and then later shared with the citizen Master Plan Committee and consultant. Interim management decisions for the site should be resolved to best maintain the environmental quality and ecological function of the site.

B. Develop and Submit for Approval
   Parks and Recreation Department staff shall develop the SIP, working with the SIP Advisory Committee where the
PRGAB has chosen to assign to the appropriate PRGAB committee. The draft SIP shall be posted on the City’s website and other appropriate publication as suggested by the Public Affairs Department. The public shall be given reasonable opportunity to comment through email or other written communication as well as the formal presentation to the PRGAB. A sign (or more if the property fronts on multiple streets) shall be posted at the site fourteen (14) days prior to presentation to PRGAB. Adjoining property owners and CACs previously identified City appointed bodies, registered neighborhood groups, and registered park support groups will be notified of the plan fourteen (14) days before presentation to the PRGAB. The public shall be given an opportunity to comment in person at a regularly scheduled PRGAB meeting. The PRGAB shall submit the recommended SIP to the City Council for adoption after appropriate review. The SIP shall be established and adopted by City Council as soon as is practical after site acquisition.

Decision 2:
Is a master plan needed?

1. A new Master Plan is needed in the following situations:
   - Every park site should have a minimal baseline inventory showing property boundaries and riparian buffers and a Master Plan or General Management Plan
   - For acquired but undeveloped park property, a Master Plan derived through a public process is required before any development for public utilization

2. A Revised Master Plan is needed in the following situations:
   - When a Master Plan has been in place more than 15 years, the park has not been fully developed and additional facilities or renovations are planned. This may be minimal review by the PRGAB and staff if the plans are consistent with an existing Master Plan, but must be publicly advertised for comment
   - Proposed park improvements are not consistent with the existing adopted Master Plan
   - The Revised Master Plan Process will be the same as for a new Master Plan

3. The following thresholds will be considered when evaluating whether to initiate a new Master Plan, revised Master Plan or Master Plan Amendment:
   - An improvement with a monetary value greater than $350,000 or $500,000 over five years

4. A Master Plan Amendment is needed when a new specific use not included in the adopted Master Plan is to be considered for the park or a specific change for the park is proposed that does not significantly alter other uses of the park.

5. A Master Plan is not needed when:
   - There is facility development or maintenance that is consistent with an existing Master Plan
   - Greenway development. However, special segments with unique ecological features or larger nodes in the greenway system may require an SIP and/or a Master Plan. The Master Plan in these cases may equate to a General Management Plan as used by the NC Division of Parks and Recreation or adopted Park and Greenway Management Policies. A Master Plan Amendment to the Greenway Element may also be appropriate.

V. Design
Design is the first step in implementing a Master Plan. The design phase provides the detailed, technical development plans for components and/or phases of a park. The design process is directed by the City staff utilizing appropriate consultants and public comment based on the adopted Master Plan and reflecting the development regulations and codes that regulate the design and implementation of construction projects. Schematic design of components or phases of a park will be reviewed with the PRGAB and the public to provide the Parks and Recreation Department staff with feedback on the compatibility of the project with the adopted park Master Plan. The Master Plan Committee (those who are still local and/or reachable by normal means) shall be notified of the Design Phase and invited to
Additional direct community feedback on the project design plans will be solicited by the following methods: (1) For at least 14 days there will be a display/posting of plans on City's website and (2) at a nearby community center for at least 14 days in advance of the advertising of the bid process for public review and comment. Comments shall be forwarded to the PRGAB and the City Council prior to awarding of contracts.

VI. Construction
Construction is the final step in implementing the Master Plan. City Administration directs the construction process. Public bid and contract laws and procedures regulate the process of construction bidding, contract award, execution and implementation of construction projects.

VII. Post Occupancy Evaluation/Continuous Monitoring and Evaluation
After each major phase of development and construction, the park facilities and customer satisfaction with the facilities will be evaluated by the staff through user surveys. The objective of these evaluations is to identify improvements that the City can make to improve functioning of the park. The staff will prepare a report to the PRGAB and the planning consultant including information from public survey or comment. The PRGAB shall report to the City Council as they deem appropriate.

Adopted and Effective: April 25, 2003
Revised January 6, 2004
Appendix B

Contributors to Forestville Road Property

System Integration Plan
Contributing Staff and Agencies to the Forestville Road Property System Integration Plan

City of Raleigh Parks and Recreation Staff:
Melissa Salter, Land Stewardship Coordinator
David Shouse, Senior Planner
Dick Bailey, Design/Development Administrator
Emily Ander, Planner 1
Andy Hayes, GIS Technician
Kelsey Obernuefemann, GIS Technician
Gretchen Sedaris, Gardener District #6
Troy Burton, Historian and Cultural Resources Coordinator
Martha Hobbs, Preservation Planner, liaison to Raleigh Historic Districts Commission
Tania Tully, Preservation Planner, liaison to Raleigh Historic Districts Commission
Vann Wester, Facilities and Operations Assistant Superintendent
J. Brian Taylor, Safety Coordinator
Tammy Reed, Parks and Recreation Crew Supervisor District #6
Sally Thigpen, Urban Forester

City of Raleigh staff:
Brad Williams, City of Raleigh Attorney
Paul Kallam, City of Raleigh Transportation Engineer
Cesar Sanchez, City of Raleigh Public Utilities Project Engineer

Parks Committee, Parks, Recreation and Greenway Advisory Board

North Carolina State Archives

USDA Natural Resources Conservation Service

NC Wildlife Resources Commission

Wake County Environmental Services

Progress Energy

John Perry, descendant of Kearney Upchurch

Erma Spaanbroek, descendant of Kearney Upchurch
Appendix C

Phase 1 Environmental Assessment Report

Executive Summary
A Phase I Environmental Site Assessment was conducted by GeoLogix personnel on a 25.13-acre tract of land located northeast of Raleigh in Wake County, North Carolina. The subject property is located adjacent to, and east of, Forestville Road (SR 2049). The property studied in this report may be referred to as the “subject property” or “tract”. Information regarding the subject property was gathered through an on-site reconnaissance, a review of aerial photographs, interviews, and a review of environmental regulatory agency database information.

A number of buildings/structures were observed on the subject property during the site reconnaissance. Three residences, two mobile homes an one modular home, were observed in the western region of the tract near Forestville Road. Other structures were observed in proximity to the residences including a small barn, a chicken house, feed house, well house, log cabin, and storage sheds. An old barn/storage structure was observed at the edge of a pasture in the southwest region of the tract. According to Mr. Poole, the current property owner, the log cabin was previously located further east on the tract. Aerial photographs were available from years 1949, 1965, 1971, 1983, and 1993. The 1949 aerial photo indicated that some of the structures in the western region of the tract were visible. What is thought to be the log cabin is visible in the central region of the subject property in that photo. The northeast region of the tract appeared to be farmed, and currently-existing pasture and garden areas are visible in the southwest region. In the 1965 photo, it appeared that some of the cleared/farmed area in the northeast region of the tract was reclaiming itself in vegetation. The 1971 photo appeared similar to the 1965 photo. In the 1981 photo, a few structures were visible in the western region of the tract as were the pasture and garden areas in the southwest region of the tract. The 1993 photo is similar to the 1981 photo except that the garden area appears smaller. Copies of the aerial photographs reviewed during this study are contained in Appendix C.

On land previously used for agricultural purposes, pesticides, herbicides, insecticides, fungicides and/or other farm-related chemicals may have been applied. However, there was no evidence of prolonged use or misapplication of pesticides, etc., or other chemicals or fertilizers observed on the subject property during the site reconnaissance.

There was no physical evidence observed during the site reconnaissance to indicate the existence of an underground fuel storage tank (UST) on the tract. Although unlikely, it is unknown for certain if any old, unregistered UST(s) may have existed on site in association with previous activities on the subject property. Above ground propane fuel storage tanks were observed during the site reconnaissance. A propane tank was located at each of the three residences on site. No other
above ground tanks were observed on site.

No NPL sites, RCRA hazardous waste notifiers, CERCLIS facilities, groundwater/release incidents, permitted solid waste facilities, hazardous substance/hazardous waste disposal sites, or other facilities of concern were identified within or close to standard ASTM search distances of the subject property in a review of environmental agency informational databases.

Some solid waste was observed on the property during the site reconnaissance. Much of the waste consisted of items disposed along the northern property boundary (Oak Hill Drive) and eastern property (adjacent to mobile home park) boundary. Much of the waste observed was domestic/containers in nature and would not be expected to significantly adversely impact the subject property. There was no conclusive evidence of hazardous or toxic substances, wastes, materials or other environmental contaminants currently being used on or stored on the subject property. No significant environmental concerns were positively identified on adjacent properties. In summary, this Phase I assessment revealed no significant evidence of environmental contamination, environmental impairment, or Recognized Environmental Conditions (REC) in association with the subject property. The potential for significant surface or subsurface environmental contamination to currently exist at the subject property is deemed low based on available information.

This Phase I Environmental Site Assessment represents a thorough attempt to identify potential sources of environmental contamination. However, there is always the possibility that sources of contamination have escaped detection due to the limitations of this study, the inaccuracy of governmental records, the presence of undetected and unreported environmental incidents, or the inaccuracy of information furnished by other parties used to arrive at the conclusions reached in this report.

The findings contained in this report are relevant to the dates of the site work and should not be relied upon to represent site conditions at other times. The Phase I study of the subject property was performed generally within the scope and limitations of ASTM Standard E-1527. An exception to the standard was that a formal chain-of-title search was not conducted. GeoLogix was able to reach appropriate conclusions regarding the subject property without conducting a formal title search.
Appendix D

Stream Quality Assessment Worksheet

Forestville Road Property
STREAM QUALITY ASSESSMENT WORKSHEET

Provide the following information for the stream reach under assessment:

1. Applicant’s name: **City of Raleigh Parks & Rec**
2. Evaluator’s name: **Melissa Saltor**
3. Date of evaluation: **7/23/09**
4. Time of evaluation: **11:30 am**
5. Name of stream: **NPS 14 unnamed tributary to Hedges Creek**
6. River basin: **Neuse River Basin**
7. Approximate drainage area: **2.55 acres**
8. Stream order: **Main channel 2, side branches 1**
9. Length of reach evaluated: **2,162 ft**
10. County: **Wake**
11. Site coordinates (if known): **prefer decimal degrees**
12. Subdivision name (if any):

Latitude (ex. 34.872312): **21456721.993**
Longitude (ex. -77.556111): **764179.856**

Method location determined (circle): **GPS**, **Topo Sheet**, **Ortho (Aerial) Photo**, **GIS** **Other GIS** **Other**

13. Location of reach under evaluation (note nearby roads and landmarks and attach map identifying stream(s) location):
   **Forestville Rd. at Oak Hill Drive in NE Raleigh**

14. Proposed channel work (if any):

15. Recent weather conditions: **Hot and Sunny, some afternoon thunderstorms**

16. Site conditions at time of visit: **dry**

17. Identify any special waterway classifications known: **Section 10** **Tidal Waters** **Essential Fisheries Habitat**
   **Trout Waters** **Outstanding Resource Waters** **Nutrient Sensitive Waters** **Water Supply Watershed** (I-IV)

18. Is there a pond or lake located upstream of the evaluation point? **YES** **NO** If yes, estimate the water surface area: **52 acres**

19. Does channel appear on USGS quad map? **YES** **NO**

20. Does channel appear on USDA Soil Survey? **YES** **NO**

21. Estimated watershed land use: **30% Residential**
   **50% Forested**
   **10% Cleared/Logged**
   **10% Commercial** **% Industrial** **10% Agricultural**

22. Bankfull width: **4 ft**
23. Bank height (from bed to top of bank): **1 ft**

24. Channel slope down center of stream: **X Flat (0 to 2%)** **Gentle (2 to 4%)** **Moderate (4 to 10%)** **Steep (>10%)**

25. Channel sinuosity: **Straight** **Occasional bends** **X Frequent meander** **Very sinuous** **Braided channel**

**Instructions for completion of worksheet (located on page 2):** Begin by determining the most appropriate ecoregion based on location, terrain, vegetation, stream classification, etc. Every characteristic must be scored using the same ecoregion. Assign points to each characteristic within the range shown for the ecoregion. Page 3 provides a brief description of how to review the characteristics identified in the worksheet. Scores should reflect an overall assessment of the stream reach under evaluation. If a characteristic cannot be evaluated due to site or weather conditions, enter 0 in the scoring box and provide an explanation in the comment section. Where there are obvious changes in the character of a stream under review (e.g., the stream flows from a pasture into a forest), the stream may be divided into smaller reaches that display more continuity, and a separate form used to evaluate each reach. The total score assigned to a stream reach must range between 0 and 100, with a score of 100 representing a stream of the highest quality.

**Total Score (from reverse):** **71**

**Comments:** Historically most of the area was farms. Currently most of the stream is in a natural state. There is a very small dam and excavated area near the start of the westernmost branch. The start of this branch appears to be a headwater wetland? (small?) Photos were taken some of the slopes especially along main branch (2nd order) are greater than 20%.

Evaluator's Signature: ____________ Date: ____________

This channel evaluation form is intended to be used only as a guide to assist landowners and environmental professionals in gathering the data required by the United States Army Corps of Engineers to make a preliminary assessment of stream quality. The total score resulting from the completion of this form is subject to USACE approval and does not imply a particular mitigation ratio or requirement. Form subject to change – version 06/03. To Comment, please call 919-876-8441 x 26.
## STREAM QUALITY ASSESSMENT WORKSHEET

<table>
<thead>
<tr>
<th>#</th>
<th>CHARACTERISTICS</th>
<th>ECOREGION POINT RANGE</th>
<th>SCORE</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Coastal</td>
<td>Piedmont</td>
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<tr>
<td>1</td>
<td>Presence of flow / persistent pools in stream</td>
<td>0–5</td>
<td>0–4</td>
</tr>
<tr>
<td>2</td>
<td>Evidence of past human alteration</td>
<td>0–6</td>
<td>0–5</td>
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<td>3</td>
<td>Riparian zone</td>
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<tr>
<td>4</td>
<td>Evidence of nutrient or chemical discharges</td>
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<td>0–4</td>
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<tr>
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<td>Groundwater discharge</td>
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</tr>
<tr>
<td>6</td>
<td>Presence of adjacent floodplain</td>
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<td>Entrance / floodplain access</td>
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<td>Presence of adjacent wetlands</td>
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<td>Channel sinuosity</td>
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<td>Sediment input</td>
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<tr>
<td>11</td>
<td>Size &amp; diversity of channel bed substrate</td>
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<tr>
<td>12</td>
<td>Evidence of channel incision or widening</td>
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<tr>
<td>13</td>
<td>Presence of major bank failures</td>
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<tr>
<td>14</td>
<td>Root depth and density on banks</td>
<td>0–3</td>
<td>0–4</td>
</tr>
<tr>
<td>15</td>
<td>Impact by agriculture, livestock, or timber production</td>
<td>0–3</td>
<td>0–4</td>
</tr>
<tr>
<td>16</td>
<td>Presence of riffle-pool/ripple-pool complexes</td>
<td>0–3</td>
<td>0–5</td>
</tr>
<tr>
<td>17</td>
<td>Habitat complexity</td>
<td>0–6</td>
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<tr>
<td>18</td>
<td>Canopy coverage over streambed</td>
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<td>0–5</td>
</tr>
<tr>
<td>19</td>
<td>Substrate embeddedness</td>
<td>NA*</td>
<td>0–4</td>
</tr>
<tr>
<td>20</td>
<td>Presence of stream invertebrates (see page 4)</td>
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</tr>
<tr>
<td>21</td>
<td>Presence of amphitians</td>
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<td>0–4</td>
</tr>
<tr>
<td>22</td>
<td>Presence of fish</td>
<td>0–4</td>
<td>0–4</td>
</tr>
<tr>
<td>23</td>
<td>Evidence of wildlife use</td>
<td>0–6</td>
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</tbody>
</table>

Total Points Possible: 100

TOTAL SCORE (also enter on first page): 71

* These characteristics are not assessed in coastal streams.
Notes on Characteristics Identified in Assessment Worksheet

1. Consider channel flow with respect to channel cross-sectional area (expected flow), drainage area, recent precipitation, potential drought conditions, surrounding land use, possible water withdrawals, presence of impoundments upstream, vegetation growth in channel bottom (as indicator of intermittent flow), etc.

2. Human-caused alterations may include relocation, channelization, excavation, riprap, gabions, culverts, levees, berms, spoil piles adjacent to channel, etc.

3. The riparian zone is the area of vegetated land along each side of a stream or river that includes, but is not limited to, the floodplain. Evaluation should consider width of riparian area with respect to floodplain width, vegetation density, maturity of canopy and understory, species variety, presence of undesirable invasive species (exotics), breaks (utility corridors, roads, etc.), presence of drainage tiles, logging activities, other disturbances which negatively affect function of the riparian zone.

4. Evidence of nutrient or chemical discharges includes pipes, ditches, and direct draining from commercial and industrial sites, agricultural fields, pastures, golf courses, swimming pools, roads, parking lots, etc. Sewage, chlorine, or other foul odors, discolored water, suds, excessive algal growth may also provide evidence of discharge.

5. Groundwater discharge may be indicated by persistent pools and saturated soils during dry weather conditions, presence of adjacent wetlands, seeps, and springs feeding channel, reduced soils in channel bottom.

6. Presence of floodplains may be determined by topography and the slope of the land adjacent to the stream, terracing, the extent of development within the floodplain, FEMA designation if known, etc.

7. Indicators of floodplain access include sediment deposits, wrack lines, drainage patterns in floodplain, local stream gauge data, testimony of local residents, entrenchment ratio, etc. Note that indicators may relieve and not a result of regular flooding.

8. Wetland areas should be evaluated according to their location, size, quality, and adjacency relative to the stream channel, and may be indicated by beaver activity, impounded or regularly saturated areas near the stream, previous delineations, National Wetland Inventory maps, etc. (Wetlands must meet criteria outlined in 1997 delineation manual and are subject to USACE approval.)

9. Channel sinuosity should be evaluated with respect to the channel size and drainage area, valley slope, topography, etc.

10. To evaluate sediment deposition within the channel consider water turbidity, depth of sediment deposits forming at point bars and in pools, evidence of eroding banks or other sediment sources within watershed (construction sites, ineffective erosion controls). In rare cases, typically downstream of culverts or dams, a sediment deficit may exist and should be considered in scoring.

11. When looking at channel substrate, factor in parent material (presence of larger particles in soil horizons adjacent to the stream), average size of substrate (bedrock, clay/silt, sand, gravel, cobble, boulder, etc.), and diversity of particle size (riparian is excluded).

12. Indications of channel incision and deepening may include a V-shaped channel bottom, collapsing banks, evidence of recent development and increased impervious surface area resulting in greater runoff in the watershed.

13. Evaluation should consider presence of major bank failures along the entire reach under evaluation, including uprooted trees on banks, banks falling into channel, formation of islands in channel as they widen, exposed soil, active zones of erosion, etc.

14. Increased root density and depth result in greater bank stability. Consider the depth and density that roots penetrate the bank relative to the amount of exposed soil on the bank and the normal water elevation.

15. Assessment of agriculture, livestock, and/or timber production impacts should address areas of stream bank destabilization, evidence of livestock in or crossing stream, loss of riparian zone to pasture or agricultural fields, evidence of sediment or high nutrient levels entering streams, drainage ditches entering streams, loss of riparian zone due to logging, etc.

16. Riffle-pool steps can be identified by a series of alternating pools and riffles. Abundance, frequency, and relative depth of riffles and pools should be considered with respect to topography (steepness of terrain) and local geology (type of substrate). Coastal plain streams should be evaluated for the presence of riffle-pool sequences. Riffles are bed forms found in sand bed streams with little or no gravel that form under low shear stress conditions, whereas, dunes and antidunes form under moderate and high shear stresses, respectively. Dunes are the most common bed forms found in sand bed streams.

17. Habitat complexity is an overall evaluation of the variety and extent of in-stream and riparian habitat. Types of habitat to look for include rocks/cobble, sticks and leafpads, snags and logs in the stream, root mats, undercut banks, overhanging vegetation, pool and riffle complexes, wetland pockets adjacent to channel, etc.

18. Evaluation should consider the shading effect that riparian vegetation will provide to the stream during the growing season. Full sun should be considered worst case, while good canopy coverage with some light penetration is best case.

19. Stream embeddedness refers to the extent that sediment that has filled in gaps and openings around the rocks and cobble in the streambed. The overall size of the average particle in the streambed should be considered (smaller rocks will have smaller gaps).

20. Evaluation should be based on evidence of stream invertebrates gathered from multiple habitats. Scores should reflect abundance, taxa richness, and sensitivity of stream invertebrate types. (see attached examples of common stream invertebrates on page 4).

21. Evaluation should include evidence of amphibians in stream channel. Tadpoles and frogs should receive minimum value, while salamanders, newts, etc. may be assigned higher value.

22. Evaluation of fish should consider the frequency and, if possible, the variety of different fish taxa observed.

23. Evaluation of wildlife should include direct observation or evidence (tracks, shells, droppings, burrows or dens, hunting stands, evidence of fishing, etc.) of any animals using the streambed or riparian zone, to include small and large mammals, rodents, birds, reptiles, insects, etc.
Appendix E

Flora Resources

Forestville Road Property
Inventory of Flora Observed on Forestville Road Property

Trees and Shrubs
Acer barbatum            Southern Sugar Maple
Acer rubrum              Red Maple
Baccharis halimifolia    Groundseltree
Betula nigra             River Birch
Carpinus caroliniana     American Hornbeam
Carya alba               Mockernut Hickory
Carya                    Hickory
Cornus florida           Flowering Dogwood
Diospyros virginiana     Persimmon
Hypericum perforatum     St. John’s Wort
Ilex opaca               American Holly
Juniperus virginiana     Eastern red cedar
Liquidambar styraciflua  Sweet Gum
Liriodendron tulipifera  Tulip poplar
Ostrya virginiana        Hop hornbeam
Oxydendrum arboretum     Sourwood
Pinus spp.               Pines
Platanus occidentalis    Sycamore
Rhus copallinum          Winged Sumac
Rubus sp.                Blackberry
Quercus alba             White Oak
Quercus nigra            Water Oak
Sassafras albidum        Sassafras
Ulmus alata              Winged Elm
Vaccinium                Blueberry
Viburnum acerifolium     Mapleleaf viburnum

Vines
Campsis radicans         Trumpet Vine
Gelsemium sempervirens   Carolina Jessamine
Parthenocissus quinquefolia  Virginia Creeper
Smilax rotundifolia     Greenbriar
Toxicodendron radicans  Poison Ivy
Vitis rotundifolia       Muscadine grape

Ferns
Asplenium platyneuron    Ebony Spleenwort
Athyrium filix-femina    Lady Fern
Botrychium sp.           Grape Leaf Fern
Onoclea sensibilis       Sensitive Fern
Pleopeltis polypodioides Resurrection Fern
<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
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</thead>
<tbody>
<tr>
<td>Christmas Fern</td>
<td>Polystichum acrostichoides</td>
</tr>
<tr>
<td>Netted chain Fern</td>
<td>Woodwardia areolata</td>
</tr>
<tr>
<td>Common Ragweed</td>
<td>Ambrosia artemisiifolia</td>
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<tr>
<td>Broomsedge bluestem</td>
<td>Andropogon virginicus</td>
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<tr>
<td>Giant Cane</td>
<td>Arundinaria gigantea</td>
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<tr>
<td>Butterfly Weed</td>
<td>Asclepias tuberosa</td>
</tr>
<tr>
<td>Sedge species</td>
<td>Carex spp.</td>
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<tr>
<td>Spurred Butterfly Pea</td>
<td>Centrostephus virginianum</td>
</tr>
<tr>
<td>Water Hemlock</td>
<td>Cicut maculate</td>
</tr>
<tr>
<td>Reindeer moss</td>
<td>Cladonia sp.</td>
</tr>
<tr>
<td>Virginia dayflower</td>
<td>Commelina virginica</td>
</tr>
<tr>
<td>Naked Flower Ticktrefoil</td>
<td>Desmodium nudiflorum</td>
</tr>
<tr>
<td>Elephant's Foot</td>
<td>Euphorion tinctum</td>
</tr>
<tr>
<td>Daisy fleabane</td>
<td>Erigeron annus</td>
</tr>
<tr>
<td>Hearts-A-Bustin</td>
<td>Euonymus americanus</td>
</tr>
<tr>
<td>Dog Fennel</td>
<td>Eupatorium capillifolium</td>
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<tr>
<td>Rattlesnake plantain</td>
<td>Goodyera pubescens</td>
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<tr>
<td>Rattlesnake Hawkweed</td>
<td>Hieracium venosum</td>
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<tr>
<td>Helianthus</td>
<td>Impatiens capensis</td>
</tr>
<tr>
<td>Jewelweed</td>
<td>Lycopodium</td>
</tr>
<tr>
<td>Ground pine</td>
<td>Opuntia compressa or humifusa</td>
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<td>Prickly pear cactus</td>
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<td>Small's Ragwort</td>
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<td>Clear weed</td>
<td>Potentilla canadensis</td>
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<tr>
<td>Cinquefoil</td>
<td>Rhexia virginica</td>
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<tr>
<td>Virginia Meadow Beauty</td>
<td>Ruellia humilis</td>
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<tr>
<td>Fringe leaf Wild Petunia</td>
<td>Salvia lyrata</td>
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<tr>
<td>Lyreleaf Sage</td>
<td>Scutellaria lateriflora</td>
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<tr>
<td>Skullcap</td>
<td>Selaginella rupestris</td>
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<tr>
<td>Rock Spikemoss</td>
<td>Silene</td>
</tr>
<tr>
<td>Catchfly</td>
<td>Smilacina racemosa</td>
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<tr>
<td>False solomon's seal</td>
<td>Solanum carolinense</td>
</tr>
<tr>
<td>Horsenettle</td>
<td>Symphyotrichum sp.</td>
</tr>
<tr>
<td>Aster</td>
<td>Tipularia discolor</td>
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<tr>
<td>Crane-fly orchid</td>
<td>Viola sp.</td>
</tr>
<tr>
<td>Violets</td>
<td>Yucca filamentosa</td>
</tr>
<tr>
<td>Bear grass</td>
<td></td>
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</table>
### Non native

<table>
<thead>
<tr>
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<th>Common Name</th>
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<tr>
<td>Carya illinoinsis</td>
<td>Pecan</td>
</tr>
<tr>
<td>Hieracium pretense</td>
<td>Hawkweed</td>
</tr>
<tr>
<td>Lagerstroemia</td>
<td>Crepe Myrtle</td>
</tr>
<tr>
<td>Leucanthemum vulgare</td>
<td>Oxeye Daisy (non-native, naturalized)</td>
</tr>
<tr>
<td>Magnolia grandiflora</td>
<td>Southern Magnolia</td>
</tr>
</tbody>
</table>

### Invasives

<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Common Name</th>
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</thead>
<tbody>
<tr>
<td>Albizia julibrissin</td>
<td>Mimosa</td>
</tr>
<tr>
<td>Lespedeza cuneata</td>
<td>Lespedeza</td>
</tr>
<tr>
<td>Liriope spicata</td>
<td>Liriope</td>
</tr>
<tr>
<td>Ligustrum sinense</td>
<td>Chinese privet</td>
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<tr>
<td>Lonicera japonica</td>
<td>Honeysuckle</td>
</tr>
<tr>
<td>Microstegium vimineum</td>
<td>Japanese stiltgrass</td>
</tr>
<tr>
<td>Nandina domestica</td>
<td>Sacred Bamboo</td>
</tr>
<tr>
<td>Rosa multiflora</td>
<td>Multiflora rose</td>
</tr>
<tr>
<td>Vinca minor</td>
<td>Common Periwinkle</td>
</tr>
</tbody>
</table>
Appendix F

Fauna Resources

Forestville Road Property
Inventory of Observed Fauna at Forestville Road Property

Vertebrates – Birds
Carolina Wren
Chipping Sparrow
Scarlet Tanager
American Crow
Red-eyed Vireo
Carolina Chickadee
Northern Cardinal
Tufted Titmouse
Pine Warbler
Red-bellied Woodpecker
Summer Tanager
Indigo Bunting
Blue Grosbeak
Eastern Towhee
Great Crested Flycatcher
Red Shouldered Hawk
Blue Grey Gnatcatcher
Turkey Vulture
Appendix G

North Carolina Wildlife Action Plan
Priority Species
Potential Species for Habitat Types on
Forestville Road Property
POTENTIAL SPECIES FOR THESE HABITAT TYPES IN THE AREA WITHOUT SITE VISIT
contributed by Jacquelyn Wallace, Urban Wildlife Biologist
North Carolina Wildlife Resources Commission

 Streams
Etheostoma nigrum Johnny Darter
Etheostoma vitreum Glassy Darter
Lythrurus matutinus Pinewoods Shiner SR
Moxostoma collapsum Notchlip Redhorse
Moxostoma macrolepidotum Shorthead Redhorse
Moxostoma pappillosum V-lip Redhorse
Notropis amoenus Comely Shiner
Elliptio congaraea Carolina Slabshell
Elliptio icterina Variable Spike
Crayfish Cambarus davidii Carolina ladle crayfish SR

 Mixed pine hardwood forest
Accipiter cooperii Cooper’s Hawk SC
Caprimulgus vociferus Whip-poor-will
Coccyzus americanus Yellow-billed Cuckoo
Colaptes auratus Northern Flicker
Contopus virens Eastern Wood-pewee
Helmitheros vermivorous Worm-eating Warbler
Hylocichla mustelina Wood Thrush
Melanerpes erythrocephalus Red-headed Woodpecker
Picoides villosus Hairy Woodpecker
Wilsonia citrina Hooded Warbler
Mammals Mustela frenata Long-tailed Weasel
Scalopus aquaticus Eastern Mole
Amphibians Ambystoma maculatum Spotted Salamander
Ambystoma opacum Marbled Salamander
Hemidactylium scutatum Four-toed Salamander SC
Plethodon cylindraceous White Spotted Slimy Salamander
Scaphiopus holbrookii Eastern Spadefoot
Reptiles Cemophora coccinea copei Northern Scarletsnae
Crotalus horridus Timber Rattlesnake SC
Elaphe guttata Corn Snake
Eumeces laticeps Broad-headed Skink
Lampropeltis calligaster rhombomaculata Mole Kingsnake
Lampropeltis triangulum elapsoides Scarlet Kingsnake
Ophisaurus attenuatus longicaudus Eastern Slender Glass Lizard
Terrapene carolina Eastern Box Turtle
Virginia valeriae valeriae Eastern Smooth Earthsnake
Heterodon platyrinos – Eastern hognose snake
Lampropeltis getula – Eastern kingsnake
Tantilla coronata – Southeastern crowned snake (possible)
Thamnophis sauritus – Eastern ribbonsnake
Eurycea guttolineata – Three-lined salamander
Forestville Road Property

System Integration Plan

Comments and Records
System Integration Plans – Kyle Drive and Forestville Road Properties

Chair of the NE CAC introduced the topic and City of Raleigh presenters. David Shouse, Senior Planner with Parks and Recreation Design/Development began the presentation by requesting a show of hands for how many people were there from the Kyle Drive area versus the Forestville Road area. According to the sign-up sheet there were 23 citizens present from the Kyle Drive vicinity and 18 from the Forestville Road area. Shouse explained the difference between SIPs and Master Plans and where SIPs fit within the overall Park Master Planning process. He informed the group that the evening’s meeting was not to discuss park use and elements. Melissa Salter, Land Stewardship Coordinator with Parks and Recreation presented the SIPs for both sites and guided discussion and questions from the public. After the presentation some citizens gathered around the site maps posted in the room to speak with neighbors and staff.

Questions & Comments on the Kyle Drive Property

- Methods of control and effects of controlling fire ants within the Progress Energy powerline easement. Concerns were raised that controlling the ants on one property would encourage the ants to relocate to adjacent properties.
- Impact of a sanitary sewer spill in 2009 on the wetland. Is staff aware that the wetland is going to act as a catch basin for such spills?
- What is the population surrounding each site?
- Are there other Raleigh Parks that are of similar size and make-up to Kyle Drive that we could look at to get an idea of what could be done at this site?
- Did Parks coordinate with Public Utilities on this project?
- Wood duck boxes should be placed throughout the wetland area.
- When will this park be developed?
- Where does the funding come from to develop the parks? To buy the parks?
- When will Kyle Drive be widened?

Questions & Comments on the Forestville Road Property

- Recommendation to purchase adjacent former trailer park property and add it to the park
- Is the park going to affect our property values and therefore tax assessment?
- When will this park be developed?
- Why didn’t I receive a postcard?
Public Comments received during the System Integration Plan Public Review Process

From: Harry Legrand, Zoologist, North Carolina Natural Heritage Program
Received: February 8, 2010

Re: System Integration Plans for Kyle Drive Property and Forestville Road Property; City of Raleigh, Wake County

The Natural Heritage Program has no record of rare species, significant natural communities, significant natural heritage areas, or conservation/managed areas at the two sites nor within 1/2 mile of the project areas. Although our maps do not show records of such natural heritage elements in the project area, it does not necessarily mean that they are not present. It may simply mean that the area has not been surveyed. The use of Natural Heritage Program data should not be substituted for actual field surveys, particularly if the project area contains suitable habitat for rare species, significant natural communities, or priority natural areas.

Neither of these sites appear to have been surveyed previously by staff of our Program, nor are any previous reports for them available in our files. After a brief perusal of the two draft SIP documents, I offer the following comments.

Forestville Road Property: This 26.29 acre tract contains a relatively rare example of a Granitic Flatrock natural community. Though several excellent examples are protected in Wake County at Mitchell Mill State Natural Area, at the Temple Rock Preserve (Triangle Land Conservancy), and at several holdings of Wake County government - mainly close to the Little River, such outcrops are presumably very rare on City of Raleigh lands. Though no rare species have yet been reported from the flatrock, it is important to continue to survey this natural community and to keep exotic plants from invading or encroaching on the rock.

From: Tom and Carol Davis, adjacent property owners (to the north)
Received: February 11, 2010

The condition of Oak Hill Drive concerns us.
Hello City of Raleigh staff,

Thank you for the opportunity to review the Kyle Drive and Forestville Rd. SIPs. I am really impressed with both documents, particularly the detailed treatment of plant and animal resources. Nice work! My comments are listed below:

Forestville Road SIP

You could consider surveying the old buildings for use by chimney swifts or bats
I’d recommend a reptile/amphibian inventory near the headwater wetland, and recommending that future park master plans attempt to buffer the headwater wetland from disturbance.

Jacquelyn Wallace
Urban Wildlife Biologist
NC Wildlife Resources Commission
(919) 360-9680
jacquelyn.wallace@ncwildlife.org

Received from: Jay Zittle, adjacent property owner
Received: March 18, 2010

I thought the Parks Department did an excellent job researching the property and making a presentation last month.
I enjoyed knowing about the history and I hope the slave cabin is saved and used on that property. About 10 years ago I had the opportunity to go inside the cabin and it was nice viewing a little piece of NC history. There is more wildlife in this area as you are probably aware. Up until a few years ago we would have quail visit our yard about once a year. There are plenty of owls and hawks around and a few weeks ago I spotted two bald eagles at the intersection of the Neuse River and I-540.

My wish is to have some sort of low impact park with possibly a few tennis courts for recreation since according to your report there was a tennis court previously located on that property 100 years ago. By the way, I don’t play tennis but it would be nice for the area.

Jay Zittle
2437 Trellis Court
Raleigh, NC  27616

919-266-2303
From: Phil Upchurch, descendent of Kearney Upchurch  
Received: March 4, 2010

Thank you for the copy of the draft System Integration Plan for the K. Upchurch property. I am pleased to see that such a professional job is being performed on the early stages of this project. I assume that the process will lead to a City Park. I don’t have much in the way of technical comments on the draft but will offer some thoughts below. Feel free to plug them in to the review process if you think it is appropriate.

My first thought is about the name for the Park or whatever is to emerge. Naturally I think Upchurch Park would be a good name. This would recognize the ownership by Kearney Upchurch and the role he and his family played in the area historically. I am in a position to supply considerable detail on this aspect if desired. The Upchurch name also comes into focus because Avery Upchurch was such a beloved Mayor of Raleigh and a case could be made for naming the site for him. Another Upchurch was the first lady or Raleigh being the wife of Mayor Dodd for whom the Dodd-Hinsdale home was built. I could go on and on.

To look at the Upchurch aspect more broadly it would be appropriate to use the Upchurch name for the site to highlight an agrarian family going back to the earliest Colonial days. Our ancestor, Michael Upchurch, came in 1638 as a 14 year old indentured servant from England. The story of his descendents is the story of America. Along the way they played a large role in the City of Raleigh. As the Upchurch Historian I am in a position to bring forth a huge amount of this detail if needed. The records I have accumulated will all become a part of The Upchurch Collection at N.C. State University which I have established and endowed. To my mind it all ties together in a meaningful way.
Parks Committee
June 25, 2008

Draft Notes taken by Jill Braly in regard to the SIP Process

The sub-committee had several recommendations/comments:

1) Jimmy Thiem discussed the idea of having a standard built in perimeter buffer between new park acquisitions and adjacent properties, where appropriate.

2) Standardizing initial steps, either through a checklist or standard inventory form, for the SIP process will help compare apples to oranges, streamline the process. The group acknowledged that the work must go on simultaneous to the process development. Tina Certo used the term progressive evaluation to capture the idea of improving the process as we practice/use it.

3) Kevin suggested we identify and notify new neighbors as soon as we purchase park property to increase communication/transparency.

4) The committee would like to see the SIP document broken down into categories, such as safety, environmental management, access/property identification, and then have those categories somehow prioritized.

They were very complimentary regarding the document and work being done. I think all agreed this dynamic, on-going in-house process is much better than hiring a consultant. David may have more to add.
Agenda Topic

**SYSTEM INTEGRATION PLANS (SIP)**

**DISCUSSION:**

David began the discussion by reviewing Resolution (2003) 735, page 8, first two paragraphs – System Integration Plan. Melissa is the Parks and Recreation Land Stewardship Coordinator and will perform due diligence in assessing and documenting the existing property and structure conditions, maintain a natural resources inventory and form relationships with the neighbors.

The goal of the Parks Committee will be to establish park classification consistent with the Comprehensive Plan or, if applicable, a proposed special intent. Once a draft SIP is established by P&R staff and the Parks Committee, the intent is to take it to City Council and the applicable CAC and neighbors.

The presentation at this meeting was to include four park properties, but there was only time to review two sites: NPS-16 on Forestville Road and NPS-28 between Leesville Road and Erinsbrook.

**ACTION:**

Jimmy Thiem was concerned that more members of the Parks Committee were not present for the review and asked P&R staff to send the handouts to all members of the PRGAB. After members review the presentations, it will be determined if a site visit will be necessary. Staff will continue working to develop a draft report with inventory. Staff and the Parks committee will work together to determine an interim management plan.

Jimmy also proposed meeting for 1-1/2 hours next time instead of the usual 1 hour.
### Agenda Topics

**SYSTEM INTEGRATION PLAN (SIP)**

**DISCUSSION:** Melissa presented revised draft for NPS 16 incorporating comments from August 6 Comm meeting. Discussion included formatting report in In Design program similar to the Horseshoe Farm Wildlife Habitat Zone Advisory Team report. Also discussed were opportunities to further incorporate the relationship of the 2030 Comp Plan, such as adjoining parks and Future Land Use Map (FLUM). The process of public input for SIP’s should take into consideration the principles and schedule for the ongoing Public Input Policy Study by NRLI.

**ACTION:** Incorporate comments into NPS 16 draft (and future SIP reports); bring first draft of NPS 41 to next comm. Mtg Oct. 1. Copies of Sept 3 meeting’s revised draft for NPS 16 to be supplied to members not in attendance.

### ANNOUNCEMENTS:

Next meeting on Oct. 1. This meeting to be held in Frank Evans Admin Bldg conference room.

**ADJOURNMENT TIME:** 7:15 pm
# Agenda Topics

**SYSTEM INTEGRATION PLAN (SIP)**

<table>
<thead>
<tr>
<th>DISCUSSION:</th>
<th>Meeting notes from September 3, 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTION:</td>
<td>Kevin approved minutes from September 3, 2009, Jimmy seconded.</td>
</tr>
</tbody>
</table>
DISCUSSION:
The group discussed access points and surrounding properties.

The report will be the same format as NPS 16. The report will coincide with the new Public Policy after the first of the year. Public notification at a minimum:

- Advertising SIP Reports
- Signs on the property 14 days in advance
- Notices to adjacent property owners
- Discussion at PRGAB meeting for comment
- Northeast CAC – at a regular meeting or a special meeting

Melissa will start building relationships with neighbors. At the presentation, we will receive feedback and put a face with the project. This will also be an opportunity to learn what we don’t know and to find out if anyone is interested in stewardship.

Problems include dumping, ATVs, encampments. The group also discussed property management and public use of the site and liability.

At this time it is expected the draft plan will go to the PRGAB in January or February.

ACTION:
Melissa will incorporate changes suggested by Jimmy Thiem and send the updated document to everyone.

DISCUSSION:
The group also reviewed NPS 16 and Jimmy gave his observations to Melissa.

ACTION:
Melissa will incorporate Jimmy Thiem’s suggestions.

ANNOUNCEMENTS:
Next meeting on November 5, 2009, in the Jaycee Module

ADJOURNMENT TIME:
7:30 pm
Forestville Road Property

System Integration Plan

Work Progression and Updates