

August 14, 2006 NNPP-MISC-2006-007

Peter Sandbeck Administrator, Deputy Secretary of Archives and History State Historic Preservation Office North Carolina Department of Cultural Resources 4617 Mail Service Center Raleigh NC 27699-4617

SHEARON HARRIS NUCLEAR POWER PLANT EXPANSION - REQUEST FOR INFORMATION HISTORIC AND ARCHAEOLOGICAL RESOURCES

Dear Mr. Sandbeck:

Progress Energy Carolinas, Inc. (PEC) is preparing an application to the U.S. Nuclear Regulatory Commission (NRC) to obtain a construction and operating license (COL) for expansion of its power facilities at the Shearon Harris Nuclear Plant (HNP) site in Chatham and Wake Counties. The proposed expansion includes adding two separate advanced reactor units and two cooling towers just north of the existing operating unit (HNP Unit 1), the construction of a pipeline for water makeup from the Cape Fear River, and increasing the elevation of the Harris Lake to provide sufficient cooling water to the cooling towers. PEC intends to submit the COL application to the NRC in the fourth quarter of 2007.

As part of the COL application process, the NRC requires license applicants to assess whether any historic or archaeological properties will be affected by the proposed project. The NRC will consult with your office, at a later date, under Section 106 of the National Historic Preservation Act of 1966, as amended (i.e., 16 USC 470), and Federal Advisory Council on Historic Preservation regulations (i.e., 36 CFR 800). By contacting you early in the application process, we hope to identify any issues that need to be addressed or any information your office may need to expedite the NRC consultation.

Carolina Power & Light (now doing business as PEC) has operated HNP Unit 1 and associated transmission lines since 1987, when the plant began commercial operation. The Harris site is located in the extreme southwest corner of Wake County, North Carolina. Portions of the Harris site also lie in southeastern Chatham County. The City of Raleigh, North Carolina is approximately 16 miles northeast of the plant, and the City of Sanford, North Carolina is approximately 15 miles southwest of the plant. The Cape Fear River flows in a northwest-to southeast direction approximately 7.0 miles south of the plant. CP&L constructed a dam in 1980 on Buckhorn Creek about 2.5 miles north of its confluence with the Cape Fear River to create 4,100-acre Harris Reservoir for cooling tower makeup. Filling of the reservoir began in the fall of 1980, and was completed in early 1983.

The HNP Unit 1 power block area (i.e., reactor building, generating facilities, and switchyard) is located on the northwest shore of the reservoir, about 4.5 miles north of the main dam. The

Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602 Mr. Peter Sandbeck HAR / Page 2

proposed new advanced reactor units would be located just north of the existing unit (Figure 1). The proposed make-up water pipeline would be approximately 4 miles in length and would require a construction corridor 200' in width, beginning at the Cape Fear River, near the Buckhorn Dam (Figure 2). For most of the distance, the pipeline will parallel an existing transmission corridor, ending at a point on the west side of Harris Lake above the existing dam.

Water from the Cape Fear River will be used to increase the elevation of the existing Harris Lake reservoir from 220' above mean sea level (amsl) to a maximum of 250' amsl. The increased lake elevation would impound approximately 4,000 acres of additional land (Figure 3).

Operation of the new units will require additional transmission line corridors and some modification to the existing corridors, probably requiring them to be widened. The impact will be evaluated by PEC in the future once transmission line needs are determined.

As a result of previous investigations for the license renewal application of the existing HNP Unit 1, PEC compiled a list of sites on the National Register of Historic Places within a six-mile radius of the HNP property. As of November 2004, the Register listed 164 locations in Wake County, 53 locations in Chatham County, 16 locations in Lee County, and 12 locations in Harnett County, North Carolina. Of these 245 locations, 29 fall within a six-mile radius of the Harris site. In addition, there are five locations that are Determined Eligible for inclusion on the National Register list within the 6-mile radius. This information will be provided to the NRC to aid in the evaluation of the HNP Unit 1 license renewal application.

Additionally, PEC has contracted New South Associates to conduct an archaeological and historic resources survey of portions of the Harris property. They are currently performing an archaeological survey of the proposed make-up water pipeline corridor.

PEC does not expect construction or operation of two new advanced reactor units at the Harris site to adversely affect cultural or historical resources in the area. We are initiating the consultation process with your office to solicit input on the proposed undertaking and determine what concerns, if any, you may have for historic properties. We would appreciate a response to this letter within 30 days detailing any concerns regarding historic or archaeological properties in the area of HNP, or confirming PEC's conclusion that construction and operation of new power units at the Harris site would have no effect on any historic or archaeological properties in North Carolina. This will enable PEC to meet the current application preparation schedule. PEC will include a copy of this letter and your response in the COL application to the NRC.

Mr. Peter Sandbeck HAR / Page 3

Please refer any questions regarding this submittal to Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836.

Sincerely,

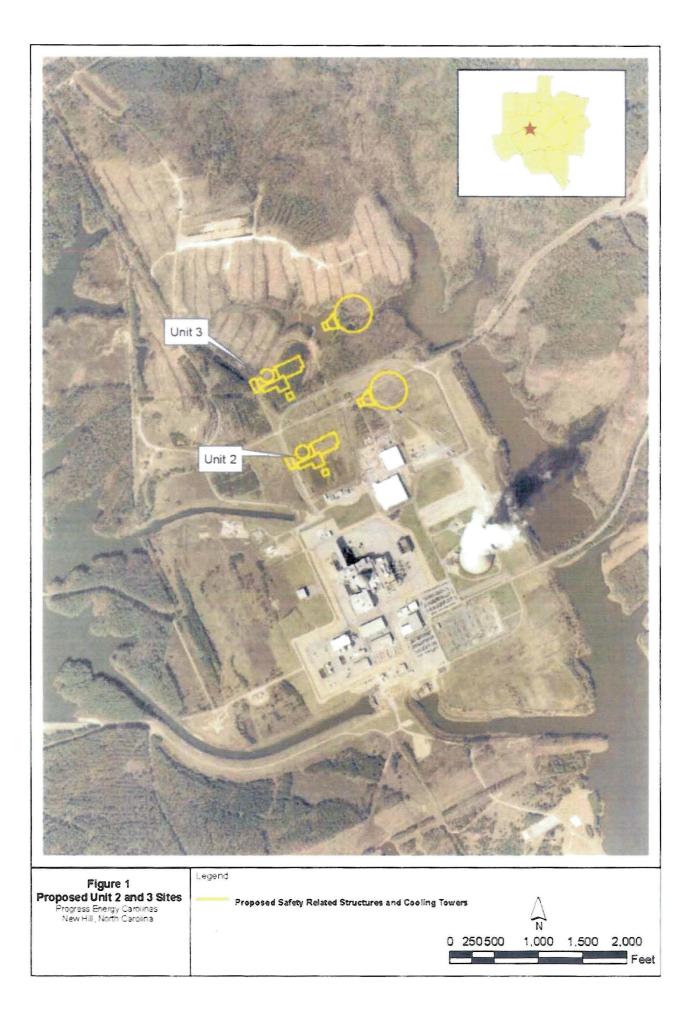
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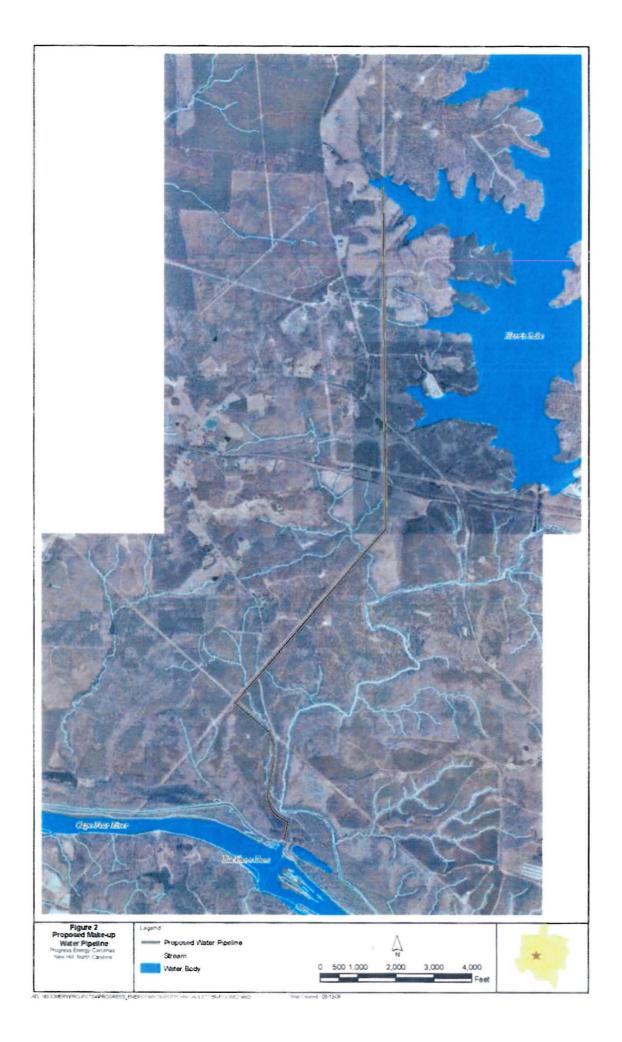
Robert H. Kitchen Manager – Nuclear Plant Licensing

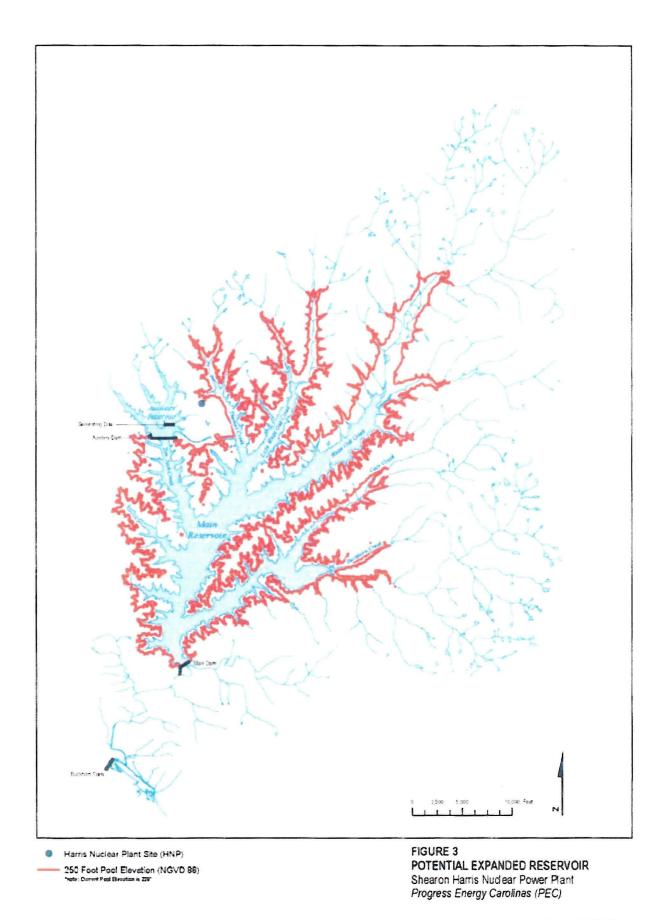
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Enclosures:

Figure 1 – Proposed Unit 2 and 3 Sites Figure 2 – Proposed Make-up Water Pipeline Figure 3 – Potential Expanded Reservoir







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North Carolina Department of Cultural Resources

State Historic Preservation Office

Peter B. Sandbeck, Administrator

Michael F. Fasley, Governor Lisbeth C. Evans, Secretary Jeffrey J. Crow, Deputy Secretary Office of Archives and History Division of Histonical Resources David Brook, Director

September 20, 2006

Robert H. Kitchen, Manager Nuclear Plant Licensing Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602

Re: Shearon Harris Nuclear Power Plant Expansion, Chatham and Wake Counties, ER 06-2238

Dear Mr. Kitchen:

Thank you for your letter of August 14, 2006, concerning the above project.

Staff of the Office of State Archaeology has met with archaeologists from New South Associates regarding archaeological investigations at the Shearon Harris expansion. We concur with the assessment that the proposed new reactors will have no effect upon archaeological resources as those areas are previously disturbed.

As noted in your letter, the proposed pipeline corridor is currently under investigation for archaeological resources. We also recommend that archaeological investigations be conducted in certain areas included in the impoundment expansion portion of the proposed project.

We have determined that the project as proposed will not affect any historic structures.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

a Glidhill-Early Peter Sandbeck

cc:

Chris Espenshade, New South Associates

ADMINISTRATION RESTORATION SURVEY & PLANNING Location 507 N. Blount Street, Raleigh NC 515 N. Blount Street, Raleigh NC 515 N. Blount Street, Raleigh, NC Mailing Address 4617 Mail Service Center, Raleigh NC 27699-4617 4617 Mail Service Center, Raleigh NC 27699-4617 4617 Mail Service Center, Raleigh NC 27699-4617 Telephone/Fax (919)733-4763/733 8653 (919)733-6547/715-4801 (919)733-6545/715-4801



January 10, 2007 NPD-MISC-2007-010

Mr. Harry LeGrand North Carolina Natural Heritage Program Office of Conservation and Community Affairs North Carolina Department of Environment and Natural Resources 1601 Mail Service Center Raleigh, NC 27699-1601

PROGRESS ENERGY CAROLINAS, NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC - REQUEST OF INFORMATION ON LISTED SPECIES AND IMPORTANT HABITATS

Dear Mr. LeGrand,

Progress Energy Carolinas (PEC), a subsidiary of Progress Energy is preparing a Combined Construction and Operating License (COL) Application to the U.S. Nuclear Regulatory Commission (NRC) for two proposed new reactor units (referred to as HAR 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency under Section 7 of the Endangered Species Act in the identification of important species and habitats in the project area. By contacting you in advance, we hope to identify any issues of concern for your agency that need to be addressed in our application.

Construction of the proposed HAR 2 & 3 Units will be immediately adjacent to the footprint of the existing Harris Unit 1. The preferred option to supply the required water for the operation of HAR 2 & 3 includes raising the operational elevation of Harris Lake, from an operational elevation of 220 feet to an operational elevation of approximately 240 feet resulting in the covering of approximately 4,000 additional acres. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake.

Transmission corridors which currently support Harris Unit 1 would be used to support generation from HAR 2. If HAR 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned. Such potential future transmission lines for HAR 3 would most likely be located in the counties of Wake, Chatham, Lee, Harnett and Cumberland.

Enclosed please find two figures of USGS topographic map sections that indicates the location of the proposed project area (New Hill quadrangle), including the proposed location of the intake structure on the Cape Fear River and the proposed new pipeline from the Cape Fear River to Harris Lake.

As a result of a similar request regarding the license renewal of Harris Unit 1, you provided a letter to Mr. Dave Corlett dated January 27, 2006 in which you provided pertinent information from your sources regarding endangered or threatened species. PEC requests

Progress Energy Carolinas, Inc. PD. Box 1551 Baleigh, NC 27602 Mr. Harry LeGrand HAR / Page 2

your review of the project area again in light of the proposed expansion to identify which of the following will be affected by or is located near the project as shown on the attached maps:

- State listed rare, endangered, or threatened species
- Significant biological resources, including critical wildlife habitat and unique natural communities
- State designated Scenic Rivers, Wildlife Refuges, Trails, Parks, and Nature Preserves
- Other areas of Natural Heritage concern

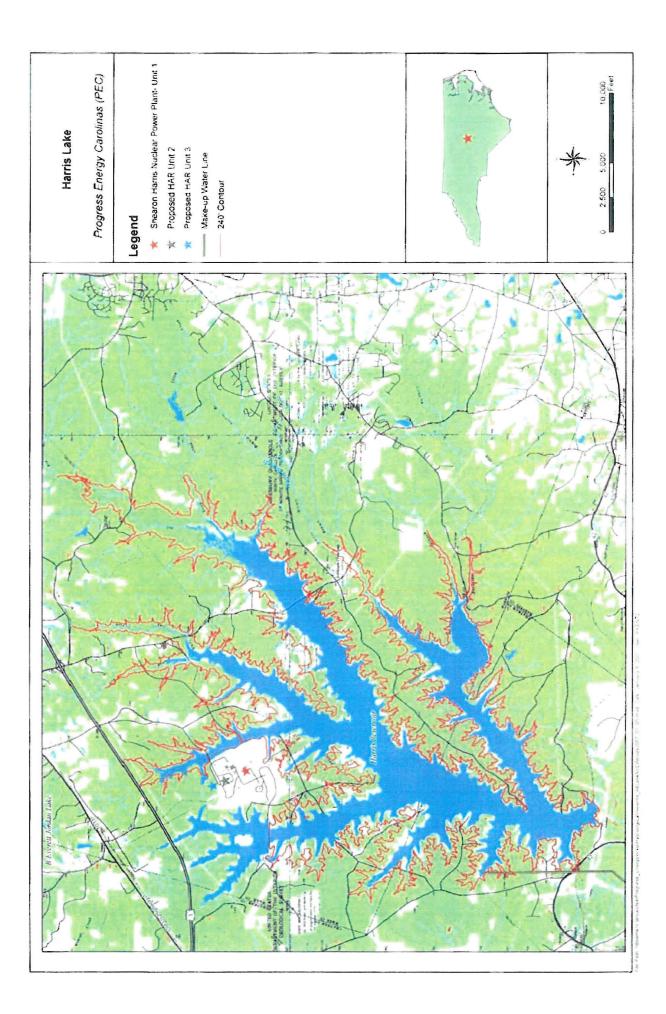
PEC would appreciate a response to this letter within 45 days of receipt, providing any information you may have concerning listed species or ecologically-significant habitats that may occur for this project. This will enable PEC to meet the current application preparation process. PEC will include a copy of this letter and your response in the license renewal application to the NRC.

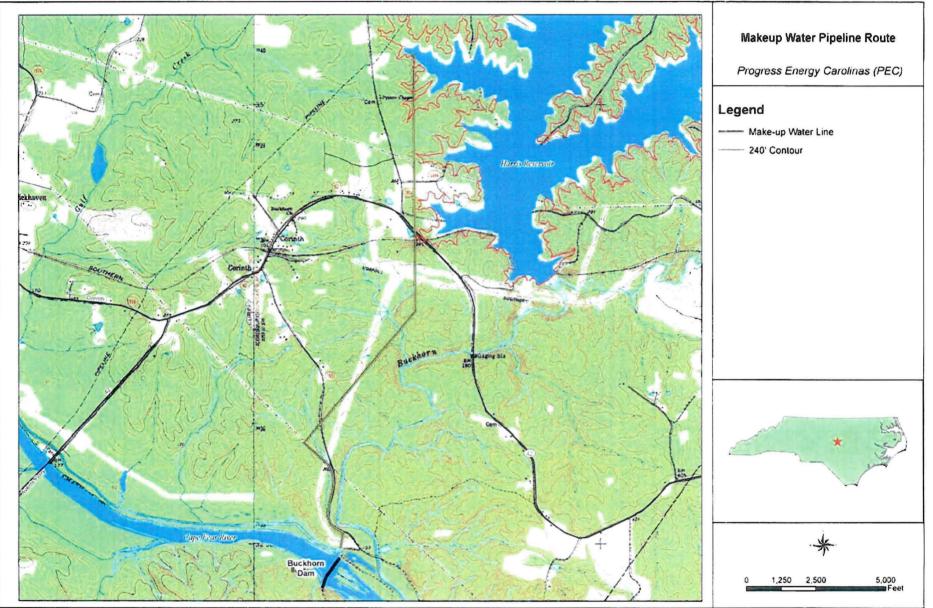
If you have any questions regarding this request please do not hesitate to contact Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-6992.

Sincerely, 1 the

Bob Kitchen Manager – Nuclear Plant Licensing

Enclosures





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January 10, 2007 NPD-MISC-2007-011

Mr. Dick Hamilton North Carolina Wildlife Resources Commission North Carolina Department of Environment and Natural Resources 1601 Mail Service Center Raleigh, NC 27699-1601

PROGRESS ENERGY CAROLINAS, NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC - REQUEST OF INFORMATION ON LISTED SPECIES AND IMPORTANT HABITATS

Dear Mr. Hamilton,

Progress Energy Carolinas (PEC), a subsidiary of Progress Energy is preparing a Combined Construction and Operating License (COL) Application to the U.S. Nuclear Regulatory Commission (NRC) for two proposed new reactor units (referred to as HAR 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency under Section 7 of the Endangered Species Act in the identification of important species and habitats in the project area. By contacting you in advance, we hope to identify any issues of concern for your agency that need to be addressed in our application.

Construction of the proposed HAR 2 & 3 Units will be immediately adjacent to the footprint of the existing Harris Unit 1. The preferred option to supply the required water for the operation of HAR 2 & 3 includes raising the operational elevation of Harris Lake, from an operational elevation of 220 feet to an operational elevation of approximately 240 feet resulting in the covering of approximately 4,000 additional acres. This change will require modification to existing boat ramps. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake.

Transmission corridors which currently support Harris Unit 1 would be used to support generation from HAR 2. If HAR 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned. Such potential future transmission lines for HAR 3 would most likely be located in the counties of Wake, Chatham, Lee, Harnett and Cumberland.

Enclosed please find two figures of USGS topographic map sections that indicates the location of the proposed project area (New Hill quadrangle), including the proposed location of the intake structure on the Cape Fear River and the proposed new pipeline from the Cape Fear River to Harris Lake.

PEC requests your review of the project area to identify which of the following will be affected by or is located near the project as shown on the attached maps:

State listed rare, endangered, or threatened species

Progress Energy Carolinas, Inc. PO Box 1551 Baleigh, NC 27602 Mr. Dick Hamilton HAR / Page 2

- Significant biological resources, including critical wildlife habitat and unique natural . communities and game lands
- Warm and cold water fisheries, including unique or critical fisheries ٥
- Fish passage and spawning areas •

PEC would appreciate a response to this letter within 45 days of receipt, providing any information you may have concerning listed species or ecologically-significant habitats that may occur for this project. This will enable PEC to meet the current application preparation process. PEC will include a copy of this letter and your response in the license renewal application to the NRC.

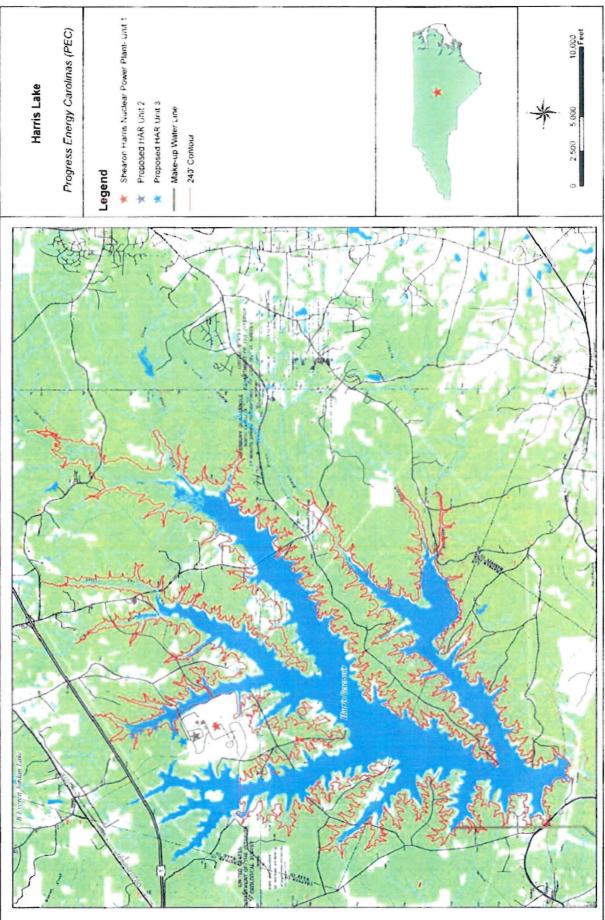
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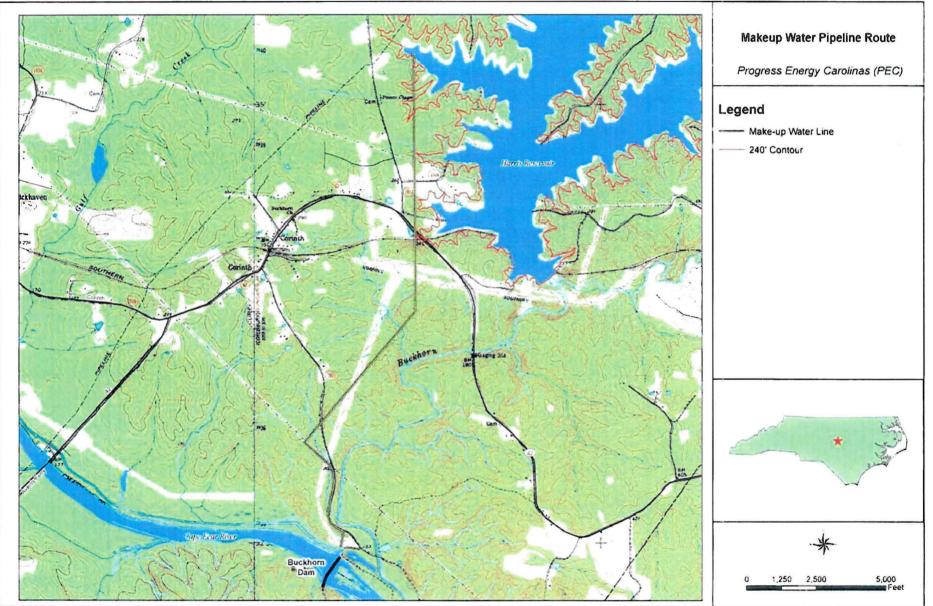
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Bob Kitchen Manager - Nuclear Plant Licensing

Enclosures



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January 10, 2007 NPD-MISC-2007-012

Mr. Pete Benjamin, U.S. Fish and Wildlife Service Raleigh Field Office P.O. Box 33726 Raleigh, NC 27636-3726

PROGRESS ENERGY CAROLINAS, NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC - REQUEST OF INFORMATION ON LISTED SPECIES AND IMPORTANT HABITATS

Dear Mr. Benjamin,

Progress Energy Carolinas (PEC), a subsidiary of Progress Energy is preparing a Combined Construction and Operating License (COL) Application to the U.S. Nuclear Regulatory Commission (NRC) for two proposed new reactor units (referred to as HAR 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act in the identification of important species and habitats in the project area. By contacting you in advance, we hope to identify any issues of concern for your agency that need to be addressed in our application.

Construction of the proposed HAR 2 & 3 Units will be immediately adjacent to the footprint of the existing Harris Unit 1. The preferred option to supply the required water for the operation of HAR 2 & 3 includes raising the operational elevation of Harris Lake, from an operational elevation of 220 feet to an operational elevation of approximately 240 feet resulting in the covering of approximately 4,000 additional acres. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake.

Transmission corridors which currently support Harris Unit 1 would be used to support generation from HAR 2. If HAR 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned. Such potential future transmission lines for HAR 3 would most likely be located in the counties of Wake, Chatham, Lee, Harnett and Cumberland.

Enclosed please find two figures of USGS topographic map sections that indicates the location of the proposed project area (New Hill quadrangle), including the proposed location of the intake structure on the Cape Fear River and the proposed new pipeline from the Cape Fear River to Harris Lake.

As a result of a similar request regarding the license renewal of Harris Unit 1, you provided a letter to Mr. Dave Corlett dated February 16, 2006 in which you stated that "based on the information provided and other information available, it appears that the proposed project is not likely to adversely affect any federally-listed endangered or threatened species. PEC

Progress Energy Carolinas, Inc. PO. Box 1551 Raleigh, NC 27602 Mr. Pete Benjamin HAR / Page 2

requests your review of the project area again in light of the proposed expansion to identify which of the following will be affected by or is located near the project as shown on the attached maps:

- Federal listed rare, endangered, or threatened species
- Significant biological resources, including critical wildlife habitat and unique natural communities
- Federal designated Scenic Rivers, Wildlife Refuges, Trails, Parks, and Nature Preserves
- Game management areas
- Wildlife protection areas, refuges, wintering areas, and wildlife travel corridors
- · Warm and cold water fisheries, including unique or critical fisheries
- Fish passage and spawning areas

PEC would appreciate a response to this letter within 45 days of receipt, providing any information you may have concerning listed species or ecologically-significant habitats that may occur for this project. This will enable PEC to meet the current application preparation process. PEC will include a copy of this letter and your response in the license renewal application to the NRC.

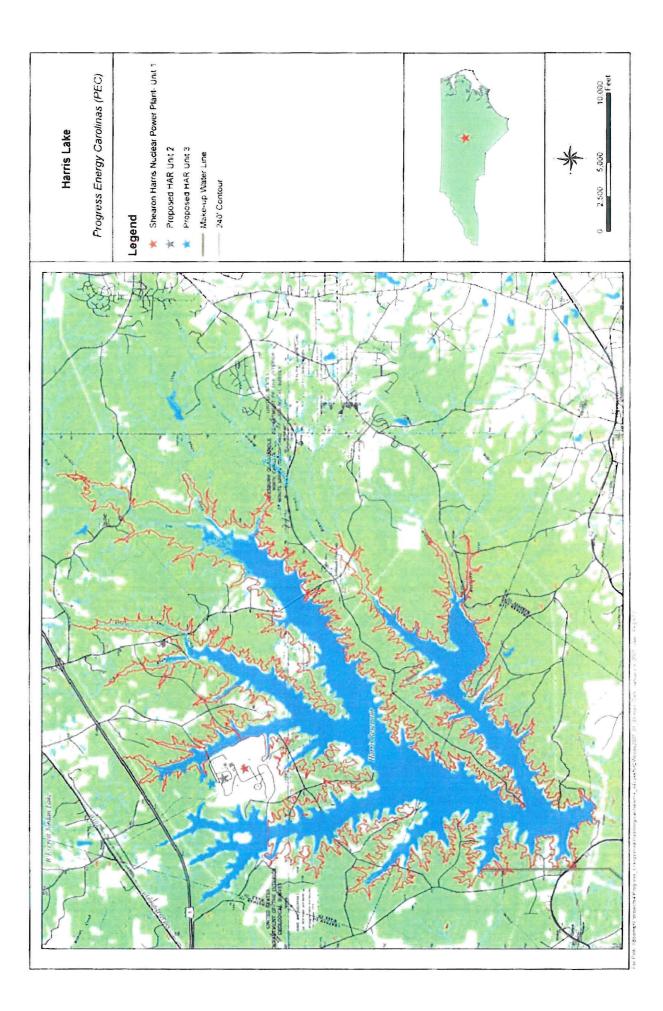
If you have any questions regarding this request please do not hesitate to contact Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-6992.

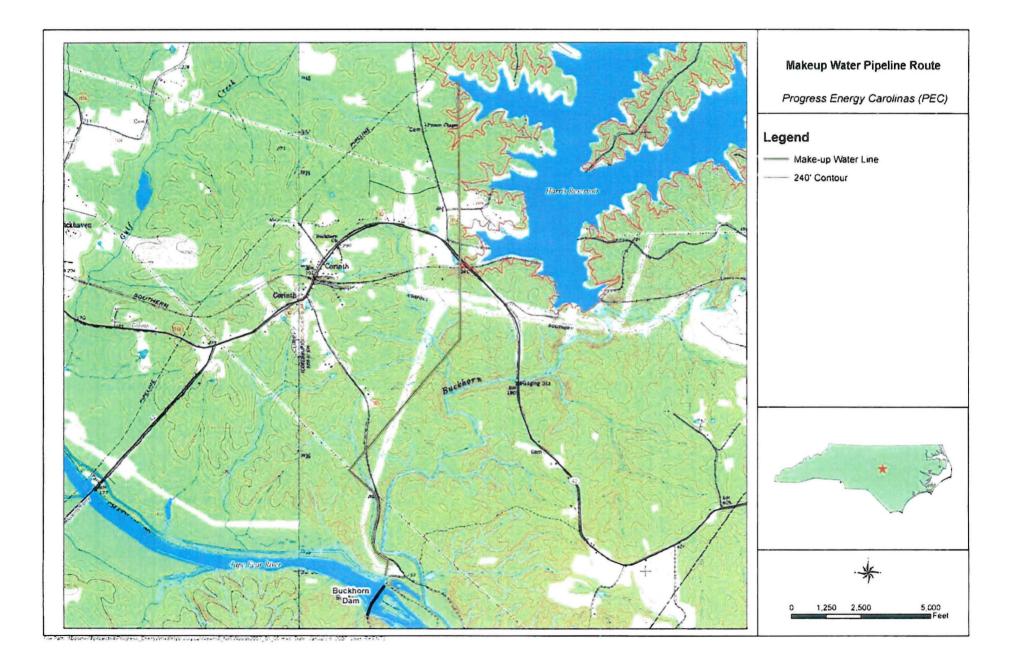
Sincerely,

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Bob Kitchen Manager – Nuclear Plant Licensing

Enclosures







Mr. Alan W. Klimek Director, Division of Water Quality NC Department of Environment and Natural Resources 1617 Mail Service Center Raleigh, NC 27699-1617

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Klimek:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

Construction of the proposed Harris Units 2 & 3 will be immediately adjacent to the footprint of the existing Harris Unit 1 (see Enclosure). The preferred option to supply the required water for the operation of Harris Units 2 & 3 includes raising the operational elevation of Harris Lake, from an existing elevation of 220 feet above mean sea level (USGS NGVD29 datum) to a level of 240 feet msl (see Enclosure). This increase in lake elevation will result in covering approximately 4,000 additional acres of land. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake. Harris Lake was originally created for the sole purpose of furnishing water for multiple units at the Harris site; however the lake was downsized when only one unit was constructed at the site and the original plans for make-up water transfer from the Cape Fear River were tabled.

Transmission corridors which currently support Harris Unit 1 will be used to support generation from Harris Unit 2. If Harris Unit 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned.

Progress Energy is in the process of preparing the COLA for submittal to the NRC by late 2007. The COLA is a comprehensive document that will cover various aspects of construction and operation of Harris Units 2 & 3 including engineering specifications;

Progress Energy Carolinas, Inc. P.O. Box 1551 Raieigh, NC 27602 Mr. Alan W. Klimek HAR / Page 2

operation and safety considerations; and environmental, recreational, cultural, and economic impacts. After the COLA submittal, the NRC will begin a lengthy review process under NEPA which may include input from your agency and other interested stakeholders, public scoping meetings to identify issues and concerns, and preparation of an Environmental Impact Statement (EIS) regarding the proposed project. Much of the NEPA process will be initiated by Progress Energy with state agencies after the NRC's receipt of the COLA.

The licensing process, once completed, gives Progress Energy the option to construct and operate the units; however, it does not obligate the Company to build. A final decision to build the proposed units is still several years away. In order to provide the most reliable, safe, and efficient mix of energy resources for its customers, Progress Energy is taking steps now to keep the option open in the future for the two new nuclear power generating units.

Because your agency is a key stakeholder identified in the COLA and NEPA scoping process, we would like to arrange a meeting to discuss our generation plans, the COLA and NEPA process, and the interests of your agency. Progress Energy will contact you to schedule this meeting.

In the meantime, I encourage you to visit the Web site we have created regarding our new generation initiatives at <u>http://www.progress-energy.com/aboutenergy</u> and click on the "Powering the Future - Carolinas" link. Additional information will be posted on this web site in the future.

Progress Energy is committed to working with the various state and federal agencies and other interested stakeholders as we move through the COLA and NEPA scoping process with the NRC. We intend to incorporate stakeholder input, questions, and concerns into our planning as we work to meet the region's future electricity needs.

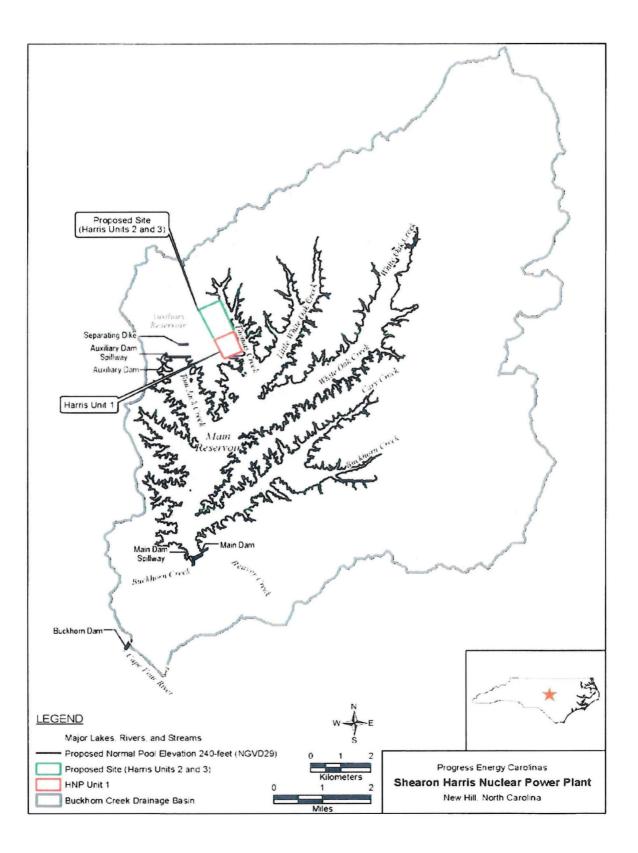
If you have any questions about the COLA process, please call Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-3029.

Sincerely, Trenth + Plan.

Timothy[']P. Cleary['] General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Paul E. Rawls Mr. Thomas A. Reeder Mr. David Matthews, II





Mr. John Morris Director, Division of Water Resources NC Department of Environment and Natural Resources 1611 Mail Service Center Raleigh, NC 27699-1611

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Morris:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

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Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602 Mr. John Morris HAR / Page 2

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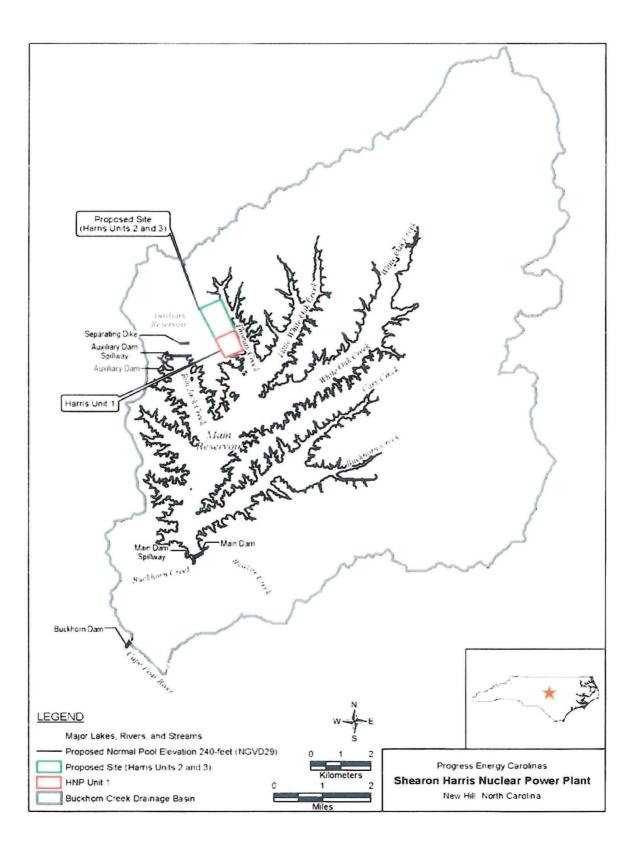
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Sincerely, T. Plan

Timothy P. Clear General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. John Sutherland Mr. Tom Fransen





Mr. Keith Overcash Director, Division of Air Quality NC Department of Environment and Natural Resources 1641 Mail Service Center Raleigh, NC 27699-1641

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Overcash:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

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Progress Energy Carolinas, Inc. PO, Box 1551 Rateigh, NC 27602 Mr. Keith Overcash HAR / Page 2

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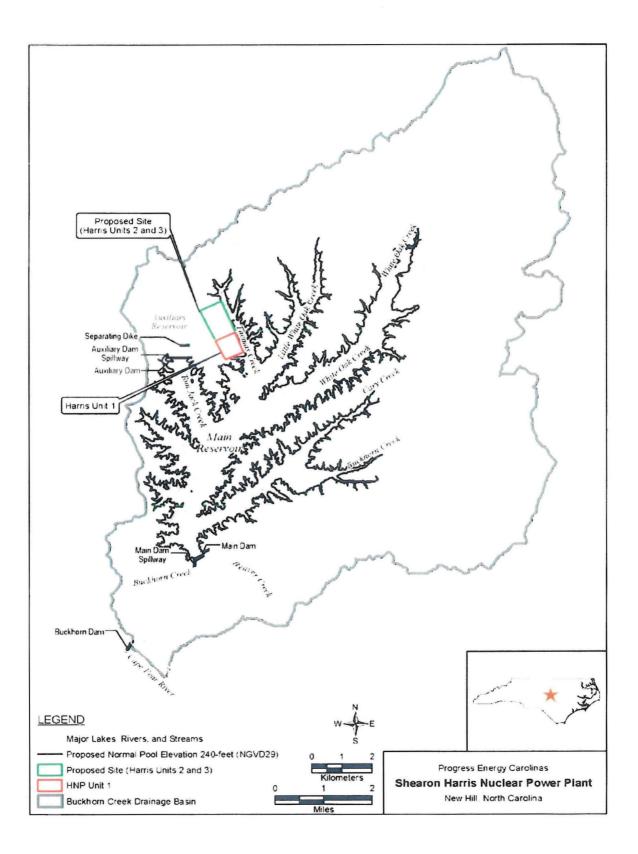
If you have any questions about the COLA process, please call Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-3029.

Sincerely, Timothy P. Cleary

Timothy P. Cleary / General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Don van der Vaart Mr. Ernie Fuller





Mr. James D. Simons Director, Division of Land Resources NC Department of Environment and Natural Resources 1612 Mail Service Center Raleigh, NC 27699-1612

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Simons:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

Construction of the proposed Harris Units 2 & 3 will be immediately adjacent to the footprint of the existing Harris Unit 1 (see Enclosure). The preferred option to supply the required water for the operation of Harris Units 2 & 3 includes raising the operational elevation of Harris Lake, from an existing elevation of 220 feet above mean sea level (USGS NGVD29 datum) to a level of 240 feet msl (see Enclosure). This increase in lake elevation will result in covering approximately 4,000 additional acres of land. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake. Harris Lake was originally created for the sole purpose of furnishing water for multiple units at the Harris site; however the lake was downsized when only one unit was constructed at the site and the original plans for make-up water transfer from the Cape Fear River were tabled.

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Progress Energy Carolinas, Inc. PO. Box 1551 Baleigh, NC 27602 Mr. James D. Simons HAR / Page 2

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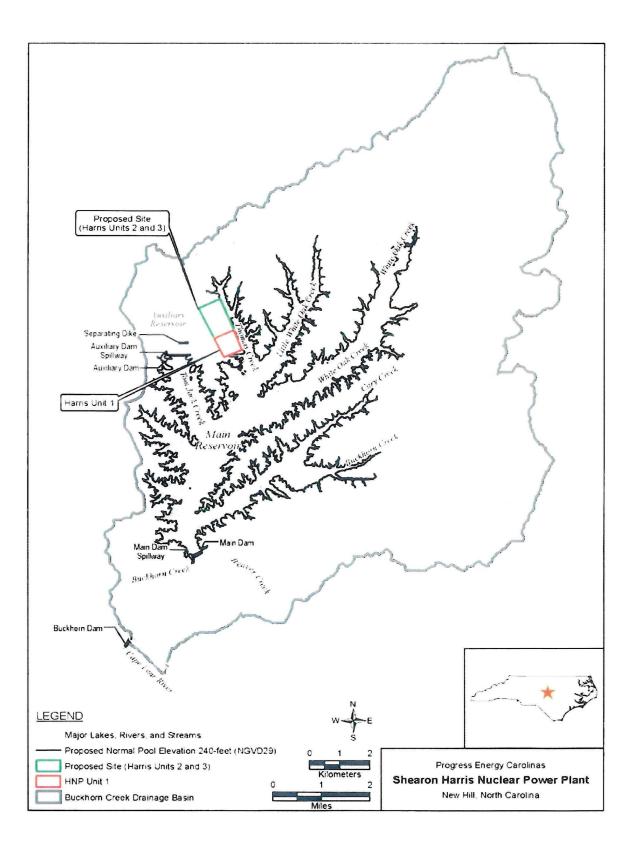
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Timothy^I P. Cleary^I General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Mell Nevils, P.E. Mr. John Holley, P.E.





Mr. Terry Pierce Director, Division of Environmental Health NC Department of Environment and Natural Resources 1630 Mail Service Center Raleigh, NC 27699-1630

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Pierce:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

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Progress Energy Carolinas, Inc. PO. Box 1551 Raleign, NC 27602 Mr. Terry Pierce HAR / Page 2

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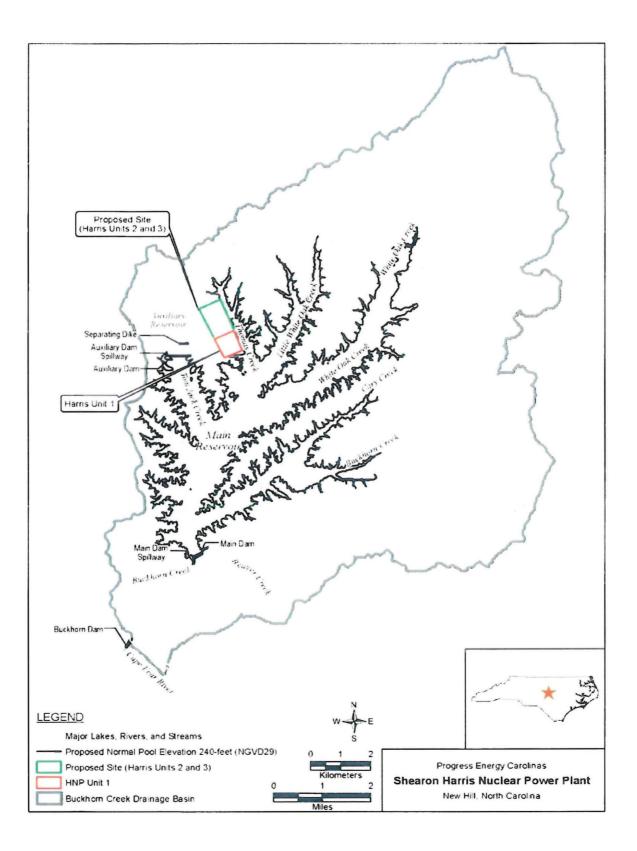
If you have any questions about the COLA process, please call Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-3029.

Sincerely, Timothy P. Cleary

Timothy P. Cleary General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Ms. Beverly O. Hall





Mr. Samuel K. Jolly Chief, Regulatory Division U.S. Army Corps of Engineers Wilmington District P.O. Box 1890 Wilmington, NC 28402-1890

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Jolly:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

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Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602 Mr. Samuel K. Jolly HAR / Page 2

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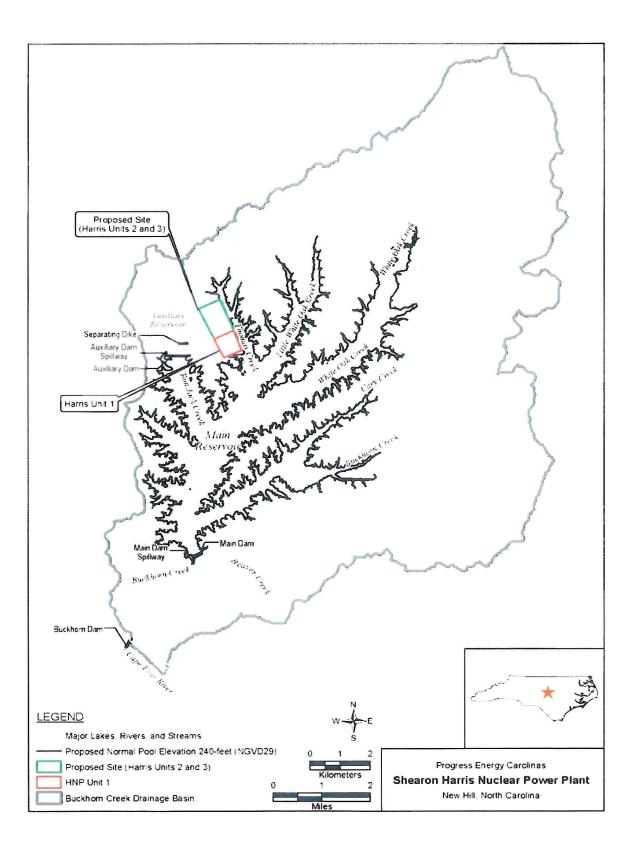
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Sincerely, -Tat Plan

Timothy[']P. Cleary['] General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Ms. Jean Manuele





Secretary James T. Fain NC Department of Commerce 4301 Mail Service Center Raleigh, NC 27699-4301

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Secretary Fain:

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Progress Energy Carolinas, Inc. PO Box 1551 Raleigh, NC 27602 Secretary James T. Fain HAR / Page 2

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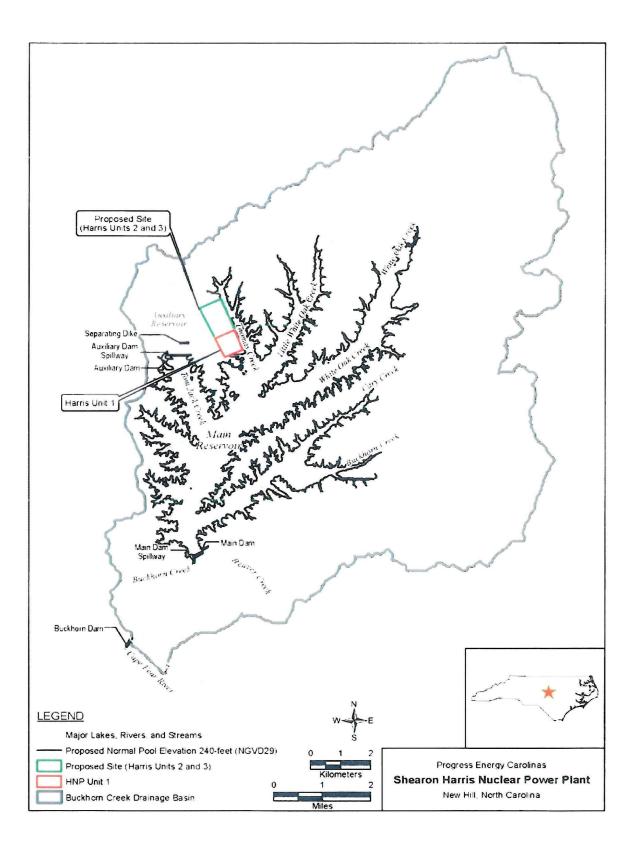
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Sincerely,

- the lang

Timothy P. Cleary General Manager Nuclear Plant Development and License Renewal

Enclosure





Ms. Melba McGee Environmental Projects Officer NC Department of Environment and Natural Resources 1601 Mail Service Center Raleigh, NC 27699-1601

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Ms. McGee:

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Progress Energy Carolinas, Inc. P.O. Box 1551 Rateigh, NC 27602 Ms. Melba McGee HAR / Page 2

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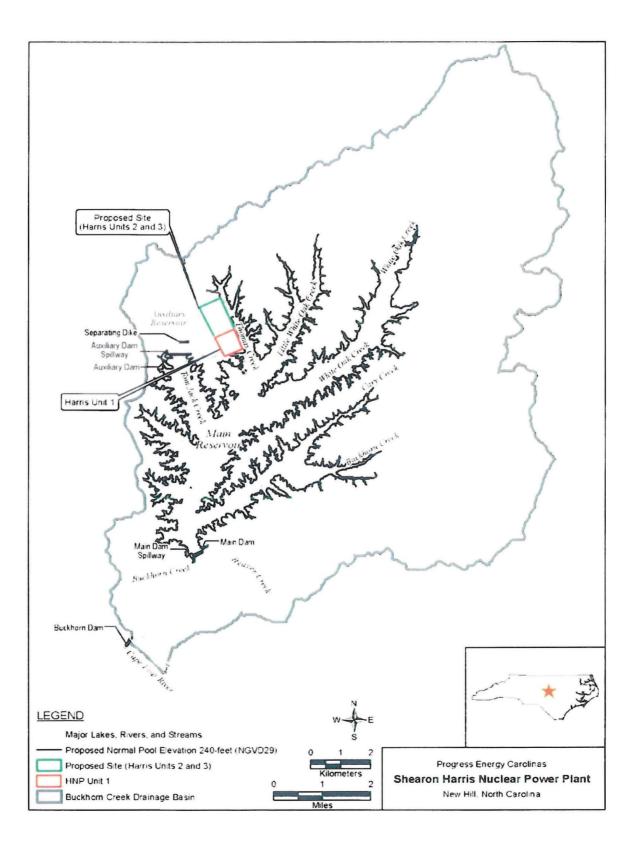
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Sincerely, Timothy P. Cleary

Timothy¹P. Cleary¹ General Manager Nuclear Plant Development and License Renewal

Enclosure





Mr. David Carter Director Wake County Parks, Recreation & Open Space 337 South Salisbury Street Raleigh, NC 27601

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Carter:

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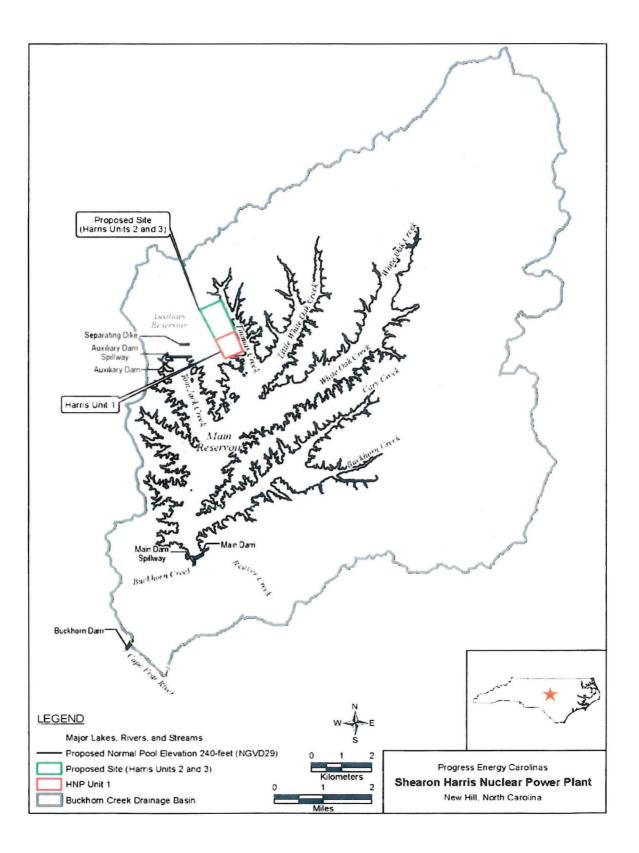
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Sincerely. Timothy P. Cleary

Timothy P. Cleary General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Chris Snow Mr. Tim Lisk





Mr. W. Craig Conklin Department of Homeland Security ATTN: IP/SSA/MGMT Mail Stop 8610 Washington, DC 20528-8610

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Conklin:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined Operating License Application (COLA) for submittal to the U.S. Nuclear Regulatory Commission (NRC). The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC reviews.

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Progress Energy Carolinas, Inc. P.O. Box 1551 Baleigh, NC 27602 Mr. W. Craig Conklin HAR / Page 2

support a 3-unit site. After the COLA submittal, the NRC and DHS/FEMA will begin a lengthy review process of the onsite/offsite emergency preparedness package.

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In the meantime, I encourage you to visit the Web site we have created regarding our new generation initiatives at <u>http://www.progress-energy.com/aboutenergy</u> and click on the "Powering the Future - Carolinas" link. Additional information will be posted on this web site in the future.

Progress Energy is committed to working with the various state and federal agencies and other interested stakeholders as we move through the COLA and emergency preparedness development process with the NRC. We intend to incorporate stakeholder input, questions, and concerns into our planning as we work to meet the region's future electricity needs.

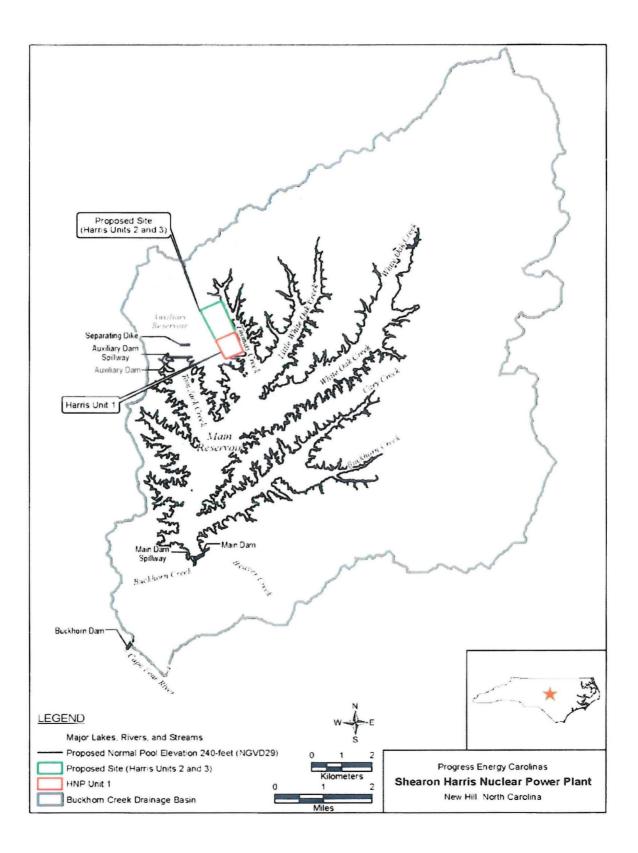
If you have any questions about the COLA process, please call Mr. Albert Barginere, Nuclear Security, at (919) 546-5650 or me at (919) 546-3029.

Sincerely, Tith Felm

Timothy[']P. Cleary[!] General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Daryl Aspey, Department of Homeland Security Secretary Bryan Beatty, North Carolina Crime Control and Public Safety Sheriff Donnie Harrison, Wake County Sheriff's Office





Mr. Doug Hoell Director North Carolina Emergency Management 4713 Mail Service Center Raleigh, NC 27699-4713

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Hoell:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined Operating License Application (COLA) for submittal to the U.S. Nuclear Regulatory Commission (NRC). The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC reviews.

Construction of the proposed Harris Units 2 & 3 will be immediately adjacent to the footprint of the existing Harris Unit 1 (see Enclosure). The preferred option to supply the required water for the operation of Harris Units 2 & 3 includes raising the operational elevation of Harris Lake, from an existing elevation of 220 feet above mean sea level (USGS NGVD29 datum) to a level of 240 feet msl (see Enclosure). This increase in lake elevation will result in covering approximately 4,000 additional acres of land. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake. Harris Lake was originally created for the sole purpose of furnishing water for multiple units at the Harris site; however the lake was downsized when only one unit was constructed at the site and the original plans for make-up water transfer from the Cape Fear River were tabled.

Transmission corridors which currently support Harris Unit 1 will be used to support generation from Harris Unit 2. If Harris Unit 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned.

Progress Energy is in the process of preparing the COLA for submittal to the NRC by late 2007. The COLA is a comprehensive document that will cover various aspects of construction and operation of Harris Units 2 & 3 including engineering specifications; operation and safety considerations; environmental, recreational, cultural, and economic impacts; and a combined emergency plan which addresses onsite/offsite activities to

Progress Energy Carolinas, Inc. P.O. Box 1351 Raleigh, NC 27602 Mr. Doug Hoell HAR / Page 2

support a 3-unit site. After the COLA submittal, the NRC and DHS/FEMA will begin a lengthy review process of the onsite/offsite emergency preparedness package.

The licensing process, once completed, gives Progress Energy the option to construct and operate the units; however, it does not obligate the Company to build. A final decision to build the proposed units is still several years away. In order to provide the most reliable, safe, and efficient mix of energy resources for its customers, Progress Energy is taking steps now to keep the option open in the future for the two new nuclear power generating units.

Because your agency is a key stakeholder identified in the COLA process, we would like to arrange a meeting to discuss our generation plans, the COLA and emergency preparedness process, and the interests of your agency. Ms. Teresa Gildersleeve of my staff will contact you to schedule this meeting.

In the meantime, I encourage you to visit the Web site we have created regarding our new generation initiatives at <u>http://www.progress-energy.com/aboutenergy</u> and click on the "Powering the Future - Carolinas" link. Additional information will be posted on this web site in the future.

Progress Energy is committed to working with the various state and federal agencies and other interested stakeholders as we move through the COLA and emergency preparedness development process with the NRC. We intend to incorporate stakeholder input, questions, and concerns into our planning as we work to meet the region's future electricity needs.

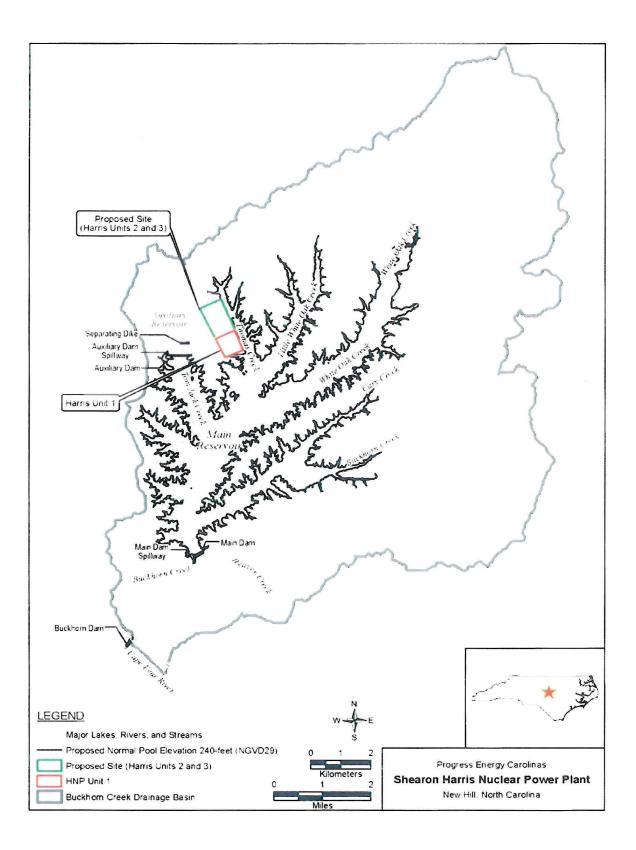
If you have any questions about the COLA process, please call Ms. Teresa Gildersleeve, Emergency Preparedness/Nuclear Plant Development, at (919) 971-8876 or me at (919) 546-3029.

Sincerely,

Timothy¹P. Cleary¹ General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. Steve Payne





Mr. W. F. Rosser, P.E. State Highway Administrator NC Department of Transportation 1536 Mail Service Center Raleigh, NC 27699-1536

PROGRESS ENERGY NEW FACILITY LICENSING, HARRIS NUCLEAR PLANT, WAKE COUNTY, NC

Dear Mr. Rosser:

The purpose of my letter is to inform you of Progress Energy Carolina, Inc.'s plans for preparing a Combined License Application (COLA) for submittal to the U. S. Nuclear Regulatory Commission (NRC). A combined license from the NRC includes a combined construction permit and operating license. The COLA outlines Progress Energy's plans for construction and operation of two proposed new power generating units (referred to as Harris Units 2 & 3) at the existing Harris Nuclear Plant (HNP). The HNP is located approximately 20 miles southwest of Raleigh in western Wake County, North Carolina. The NRC may consult with your agency as part of its National Environmental Policy Act (NEPA) scoping process regarding the COLA submittal. Progress Energy is providing this information as a courtesy to make you aware of details regarding the proposed new nuclear power generation, where we are in the COLA preparation process, and what your agency can expect as this COLA moves forward with NRC review.

Construction of the proposed Harris Units 2 & 3 will be immediately adjacent to the footprint of the existing Harris Unit 1 (see Enclosure). The preferred option to supply the required water for the operation of Harris Units 2 & 3 includes raising the operational elevation of Harris Lake, from an existing elevation of 220 feet above mean sea level (USGS NGVD29 datum) to a level of 240 feet msl (see Enclosure). This increase in lake elevation will result in covering approximately 4,000 additional acres of land. The preferred option also includes transferring water from the Cape Fear River to Harris Lake to supply the additional volume to the lake. Harris Lake was originally created for the sole purpose of furnishing water for multiple units at the Harris site; however the lake was downsized when only one unit was constructed at the site and the original plans for make-up water transfer from the Cape Fear River were tabled.

Transmission corridors which currently support Harris Unit 1 will be used to support generation from Harris Unit 2. If Harris Unit 3 were constructed, additional transmission corridors may be needed, but as of yet have not been evaluated or planned.

Progress Energy is in the process of preparing the COLA for submittal to the NRC by late 2007. The COLA is a comprehensive document that will cover various aspects of construction and operation of Harris Units 2 & 3 including engineering specifications;

Progress Energy Carolinas, Inc. P.O. Box 1551 Raleign, NC 27602 Mr. W. F. Rosser HAR / Page 2

operation and safety considerations; and environmental, recreational, cultural, and economic impacts. After the COLA submittal, the NRC will begin a lengthy review process under NEPA which may include input from your agency and other interested stakeholders, public scoping meetings to identify issues and concerns, and preparation of an Environmental Impact Statement (EIS) regarding the proposed project. Much of the NEPA process will be initiated by Progress Energy with state agencies after the NRC's receipt of the COLA.

The licensing process, once completed, gives Progress Energy the option to construct and operate the units; however, it does not obligate the Company to build. A final decision to build the proposed units is still several years away. In order to provide the most reliable, safe, and efficient mix of energy resources for its customers, Progress Energy is taking steps now to keep the option open in the future for the two new nuclear power generating units.

Because your agency is a key stakeholder identified in the COLA and NEPA scoping process, we would like to arrange a meeting to discuss our generation plans, the COLA and NEPA process, and the interests of your agency. Mr. Paul Snead of my staff will contact you to schedule this meeting.

In the meantime, I encourage you to visit the Web site we have created regarding our new generation initiatives at <u>http://www.progress-energy.com/aboutenergy</u> and click on the "Powering the Future - Carolinas" link. Additional information will be posted on this web site in the future.

Progress Energy is committed to working with the various state and federal agencies and other interested stakeholders as we move through the COLA and NEPA scoping process with the NRC. We intend to incorporate stakeholder input, questions, and concerns into our planning as we work to meet the region's future electricity needs.

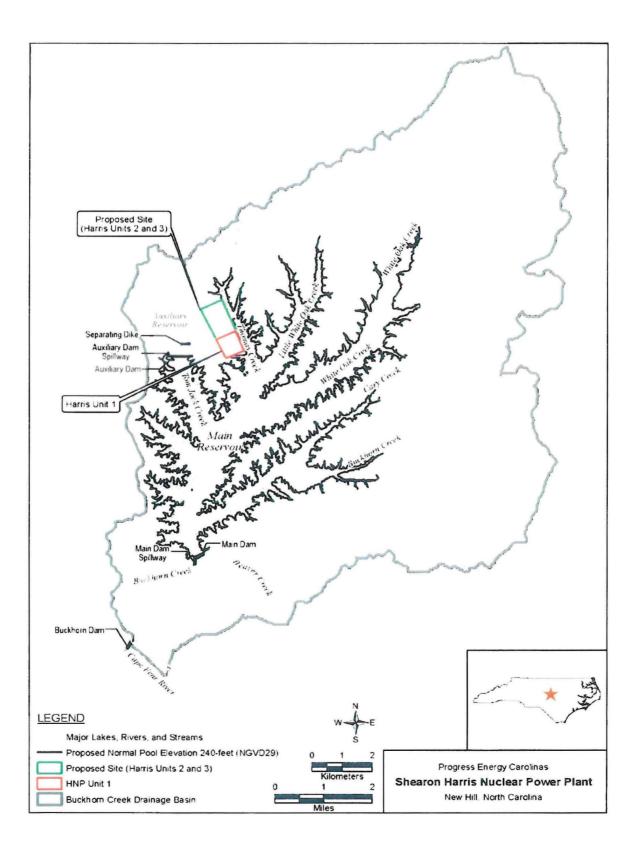
If you have any questions about the COLA process, please call Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-3029.

Sincerely,

Timothy P. Cleary [†] General Manager Nuclear Plant Development and License Renewal

Enclosure

cc: Mr. J. Wally Bowman, P.E. Mr. Tim Johnson, P.E.





Mr. Todd D. Ewing Division of Inland Fisheries North Carolina Wildlife Resources Commission 1721 Mail Service Center Raleigh, NC 27699-1721

Dear Mr. Ewing,

Thank you for your letter dated February 27, 2007 providing Progress Energy with requested information regarding the listed species and important habitats associated with the potential addition of two new power plants at the Harris nuclear site in Wake County. We are incorporating your feedback into our planning process for this project.

In addition to working with your agency and others, we do plan to consult with the North Carolina Division of Water Resources regarding our planning process.

We look forward to working with the North Carolina Wildlife Resources Commission as we move forward planning this project. In the meantime, if you have any questions regarding this project, please do not hesitate to contact Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836 or me at (919) 546-6992.

Sincerely, M

Bob Kitchen Manager – Nuclear Plant Licensing

cc: Mr. Dick Hamilton

Progress Energy Carolinas, Inc. PO Box 1551 Raleigh, NC 27602



May 16, 2007 NPD-MISC-2007-033

Mr. Steve Claggett State Archaeologist State Historic Preservation Office North Carolina Department of Cultural Resources 4617 Mail Service Center Raleigh NC 27699-4617

SHEARON HARRIS NUCLEAR POWER PLANT - POTENTIAL EXPANSION

Dear Mr. Claggett:

As noted in our August 14, 2006 letter to Mr. Peter Sandbeck of your office, Progress Energy Carolinas, Inc. (PEC) is evaluating the potential expansion of the Shearon Harris Nuclear Plant and its lake in Chatham and Wake Counties. The proposed expansion includes adding two separate advanced reactor units and two cooling towers just north of the existing operating unit (HNP Unit 1), the construction of a pipeline for water make-up from the Cape Fear River, and increasing the elevation of the Harris Lake to provide sufficient cooling water to the cooling towers.

Our contract archaeological firm, New South Associates, has completed a Phase I archaeological survey of the proposed make-up water pipeline corridor. The survey conducted on the proposed make-up water pipeline corridor did not reveal any sites requiring further investigation. Also, as recommended in your office's September 20, 2006 letter of response, New South Associates has completed investigations of the impoundment expansion portion of the proposed project and prepared a study plan for further surveys.

Both of these documents are attached for your review and concurrence. We would appreciate knowing if your office concurs with the attached study plan should PEC make the decision to raise the level of Harris Lake in the future. Naturally, any necessary Phase II site evaluations and Phase III data recovery/mitigation of adverse effects would also be completed if this project goes forward.

Please refer any questions regarding these documents to Mr. Paul Snead, Lead Environmental Specialist, at (919) 546-2836.

Sincerely,

17 H. Ell

Robert H. Kitchen Manager – Nuclear Plant Licensing

Progress Energy Carolinas, Inc. PO. Box 1551 Raleigh, NC 27602 Mr. Steve Claggett HAR / Page 2

PBS

Enclosures: "An Archaeological Survey of the Proposed Water Make-up Line, Shearon Harris Nuclear Plant"

"Archaeological Survey Plan, Proposed Expansion of Harris Lake"

cc (w/o attachments): Ms. Delores Hall Mr. Peter Sandbeck



United States Department of the Interior FILE GOPY

FISH AND WILDLIFE SERVICE Raleigh Field Office Post Office Box 33726 Raleigh, North Carolina 27636-3726

January 29, 2007

Bob Kitchen Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602

Dear Mr. Kitchen:

This letter is in response to your January 10, 2007 letter regarding the proposal to construct and operate two additional nuclear reactor units adjacent to the existing Harris Nuclear Plant in western Wake County, North Carolina. As you know, Section 7 of the Endangered Species Act requires that all federal agencies (such as the Nuclear Regulatory Commission), in consultation with the U.S. Fish and Wildlife Service (Service), ensure that any action federally authorized, funded, or carried out by such agencies is not likely to jeopardize the continued existence of any federally-listed endangered or threatened species. If your project contains suitable habitat for any of the federally-listed species known to be present within Wake, Chatham and Lee counties, the proposed action has the potential to adversely affect those species. As such, we recommend that surveys be conducted to determine the species' presence or absence within the project area. Surveys should incorporate the action area, including any proposed construction areas, the makeup water pipeline route and all areas that lie between the existing flooded area and the proposed 240 foot contour and any other areas that may be flooded by the elevated lake level. If additional transmission lines will be constructed in the future, we will also recommend that the proposed corridors be surveyed for federally listed species. The use of North Carolina Natural Heritage program data should not be substituted for actual field surveys.

A complete list of threatened and endangered species and federal species of concern known from the proposed project area is enclosed. Specifically, we recommend that surveys be conducted for the following federally listed species: bald eagle (*Haliaeetus leucocephalus*), red-cockaded woodpecker (*Picoides borealis*), Cape Fear shiner (*Notropis mekistocholas*), harperella (*Ptilimnium nodosum*), and Michaux's sumac (*Rhus michauxii*). Our web page (http://www.fws.gov/nc-es/) contains a complete list of all endangered and threatened species protected by the provisions of the Endangered Species Act, and a list of federal species of concern that are known to occur in each county in North Carolina. In addition to the federallyprotected species list, information on the species' life histories and habitats and information on completing a biological assessment or evaluation and can be found on our web page. Please check the web site often for updated information or changes.

With regards to the red-cockaded woodpecker, pine trees equal to or greater than 10"diameter at breast height (dbh) may provide suitable nesting or foraging habitat for the endangered red-

cockaded woodpecker (*Picoides borealis*). If the proposed project will be removing trees of this size, the Service recommends that surveys for active red-cockaded woodpecker cavity trees be conducted in all appropriate habitat as defined in Appendix 4 of the revised recovery plan (USFWS 2003). The revised recovery plan is available on the web at http://ecos.fws.gov/docs/recovery_plans/2003/030320.pdf. If red-cockaded woodpeckers are observed within one-half mile of the project area or active cavity trees are found, the project has the potential to affect the red-cockaded woodpecker, and you should contact this office for further information.

Regarding the Cape Fear Shiner, we have concerns that the proposed water makeup withdrawal from the Cape Fear River may harm or kill this species, transport it to Harris Lake or dewater its habitat in the Cape Fear River. Please consider these concerns and address them in future environmental documents.

Please note that field surveys for federally protected plant species such as Michaux's sumac and harperella should be conducted during the appropriate time of year when these species are readily identifiable. For more information regarding the optimal survey windows for listed species, please visit our web page: http://www.fws.gov/nc-es/plant/plant survey.html.

Once surveys are completed, a biological assessment or evaluation may be prepared in order to determine whether additional consultation with the Service is necessary. If you determine that the proposed action may affect (i.e., likely to adversely affect or not likely to adversely affect) a federally-protected species, you should notify this office with your determination, the results of your surveys, survey methodologies, and an analysis of the effects of the action on listed species, including consideration of direct, indirect, and cumulative effects, before conducting any activities that might affect the species. If you determine that the proposed action will have no effect (i.e., no beneficial or adverse, direct or indirect effect) on federally listed species, then you are not required to contact our office for concurrence, unless an Environmental Impact Statement is required for your project. However, you should maintain a complete record of the assessment, including steps leading to your determination of effect, the qualified personnel conducting the assessment, habitat conditions, site photographs, and any other related articles.

Thank you for the opportunity to provide comments on this project during this scoping phase. We look forward to continued coordination as the project develops. If you have any questions or comments, please contact Mr. Dale Suiter at (919) 856-4520, extension 18.

Sincerely.

Pete Benjamin

Field Supervisor

Enclosure

2



North Carolina Wildlife Resources Commission

Richard B. Hamilton, Executive Director

27 February 2007

Mr. Bob Kitchen Progress Energy Carolinas, Inc PO Box 1551 Raleigh, NC 27602

Dear Mr. Kitchen:

This letter is in response to your letter dated 10 January 2007 requesting information on listed species and important habitats related to Progress Energy's expansion of the Harris nuclear facility. This expansion includes raising the elevation of Harris Reservoir by 20 feet which will flood approximately 4000 acres, removing water from the Carpe Fear River assist in raising the reservoir elevation, and constructing associated piping. Biologists with the North Carolina Wildlife Resources Commission (NCWRC) have reviewed your letter and offer the following comments.

Terrestrial

Impacts from New Lake Level:

- 1. Due to the proposed new lake level, 4,000 acres of wildlife habitat in a rapidly urbanizing area will be flooded. Unfortunately, this reduction in available habitat will compound problems arising from the existing loss of habitat to residential development in Wake County.
 - Priority upland areas that will be partially flooded include:
 - Small portion of NCWRC's Urban Wildlife Conservation Corridor (shown in green on the attached map). This is a target area where the Urban Wildlife Project is working to piece together a wildlife travel corridor so species can migrate between Harris and Jordan Lakes.
 - Portion of The Nature Conservancy's Piedmont Ecoregional Portfolio Site (shown in purple hatch marks on the attached map). Most of the land to be flooded that is not presently managed as Game Land has been designated by The Nature Conservancy as part of its Ecoregional Portfolio. This designation means the area has high environmental value.
 - o Priority bottomland and wetland areas that will be flooded include:
 - Wading Bird Colony (location labeled on attached map)

- Due to the lake's higher elevation, a certain percentage of land with low elevations suitable for the presence of wetland and shoreline habitat will be permanently lost.
- 2. Harris Lake's new shoreline will move within the secondary management zone of a Bald Eagle Nest near Avent Ferry Road. The altered shoreline and additional "canal" could negatively impact individuals using this nest.
 - The nest location and secondary management zone boundary (1500 ft radius from nest) are shown on the attached map.

Impacts from Proposed Transmission Line Location:

- 1. Part of the transmission line will be constructed within an NC Significant Natural Heritage Area, known as Buckhorn Bluffs and Levees, which is also managed as Game Land (shown on map). Land clearing and construction activities could negatively impact the sensitive natural communities located on this site.
- A Bald Eagle nest is located across the Deep River from Buckhorn Dam. Any construction activities or shoreline alteration could negatively impact individuals using this nest.
 - The nest location and secondary management zone boundary (1500 ft radius from nest) are shown on the attached map.

Suggested Mitigation Measures:

- Limit negative impacts to Bald Eagle populations, and compensate for any negative impacts (such as altered shoreline) that occur by permanently protecting additional habitat. Within the Bald Eagle nest secondary management zone, the US Fish & Wildlife Service's "Eagle Habitat Management Guidelines" recommend:
 - Restricting "construction of new roads, trails, and canals which would tend to facilitate human or predator access to the nest"
 - Limiting or preventing alteration of natural shorelines where the Eagles feed
 - Limiting all land clearing and construction activities that does occur within the secondary management zone to non-nesting months (August through November)

2. Establish a buffer between the edge of Buckhorn Bluffs (bluffs within the Significant Natural Heritage Area located near Buckhorn Dam) and any land disturbing activities that will accompany transmission line construction and operation.

- 3. To compensate for the loss of 4,000 acres of terrestrial wildlife habitat, Progress Energy should create and/or permanently protect additional wildlife habitat. NCWRC encourages Progress Energy to consider one of the following options:
 - Progress Energy could purchase 4,000 additional acres of wildlife habitat. If additional property is purchased as mitigation, we recommend targeting parcels with high wildlife value. North Carolina's Wildlife Action Plan identifies conserving strategic parcels of wildlife habitat around urban centers as a critical

priority. NCWRC has identified the Urban Wildlife Conservation Corridor (displayed in light green on the map) as a high priority for land conservation in the Triangle region. If protected, this corridor would provide a means for wildlife to move between Jordan and Harris Game Lands. We encourage Progress Energy to consider purchasing this or a similar wildlife corridor as mitigation for the significant loss of habitat.

- Progress Energy could place a permanent conservation easement on remaining acres around Harris Lake and establish an agreement with NCWRC to manage these acres as Game Land.
- Progress Energy could establish a long-term policy for managing remaining Game Lands as high-quality early successional habitat.

Aquatic Resources

Reservoir Issues

- 1. Most of the game fish Harris are nest spawners (largemouth bass, crappie, various sunfish spp.) and spawn adjacent to the shoreline during the spring. These species could adjust to a gradual change in water level, yet sudden changes in the spring could be detrimental and should be avoided, particularly from March to June.
- 2. The majority of Harris current shoreline habitat is wooded and natural. This should be maintained as much as possible, as the lake is expanded to new shoreline. Woody debris should be left in place. When logging operations and any land disturbing activities are carried out, BMP's should be in place and sedimentation should be contained as much as possible.

Riverine Issues

- 1. There are historical records for the federal and state endangered Cape Fear shiner (Notropis mekistocholas) in the Cape Fear River. Other listed species in the Cape Fear River include the federal species of concern and state endangered Atlantic pigtoe (Fusconaia masoni); the federal species of concern and state special concern yellow lampmussel (Lampsilis cariosa); the federal species of concern and state significantly rare Carolina redhorse (Moxostoma sp.); the state threatened creeper (Strophitus undulatus), triangle floater (Alasmidonta undulata), and Roanoke slabshell (Elliptio roanokensis); and the state special concern pod lance (Elliptio folliculata) and notched rainbow (Villosa constricta). In order to assess the potential impact of this project on these species, we need more information regarding frequency, duration, and the magnitude, and seasonality of the withdrawals from the Cape Fear River. Progress Energy should consult with the NCWRC and the North Carolina Division of Water Resources (NCDWR) regarding impacts of flow on aquatic species.
- At this time it doesn't appear that anadromous fish species would be an issue, however, in-water work (concerning installation of a water intake) should comply with sunfish moratoriums, intake mesh sizes and screens.
- 3. NCDWR has been working on developing a Cape Fear River Hydrologic Model. It is likely this model will be a component in the development of a Drought Management Plan for Jordan Reservoir. If Progress Energy proposes to withdraw water from the Cape Fear River to supplement Harris Lake, depending on the frequency and volume of water

PAGE 4

withdrawn, this could significantly affect the hydrologic model and Jordan Reservoir Drought Management Plan. In addition, the Western Wake Water Reclamation Facility is a proposed wastewater treatment plant with a discharge point directly below Buckhorn Dam. It is proposed to be completed by 2011. Again, depending on frequency and volume of water withdrawn, this could impact water quality and aquatic resources in the Cape Fear River downstream of Buckhorn Dam, particularly during drought years when minimum flows from Jordan Reservoir dam are reduced and the wastewater treatment plant is constructed. Progress Energy should consult with the NCDWR on these issues.

Reservoir Access

The proposed increase of Harris Reservoir operating level from 220' to 240' will render the existing boating access facilities inoperable. Provisions should be made by Progress Energy to ensure public boating access needs are addressed.

The NCWRC appreciates the opportunity to provide comments on this issue. NCWRC staff would be happy to meet with you to discuss any of these issues. Feel free to contact me at 336-625-5257 or todd.ewing@ncwildlife.org is you have any questions.

Thank you,

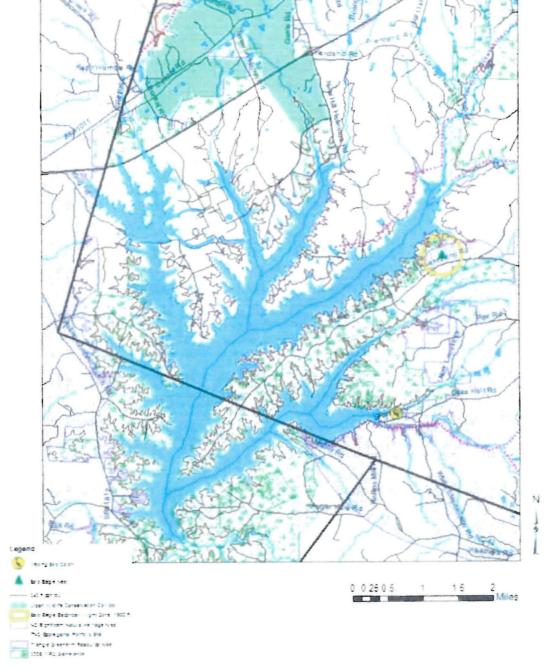
Todd O. Eing

Todd D. Ewing

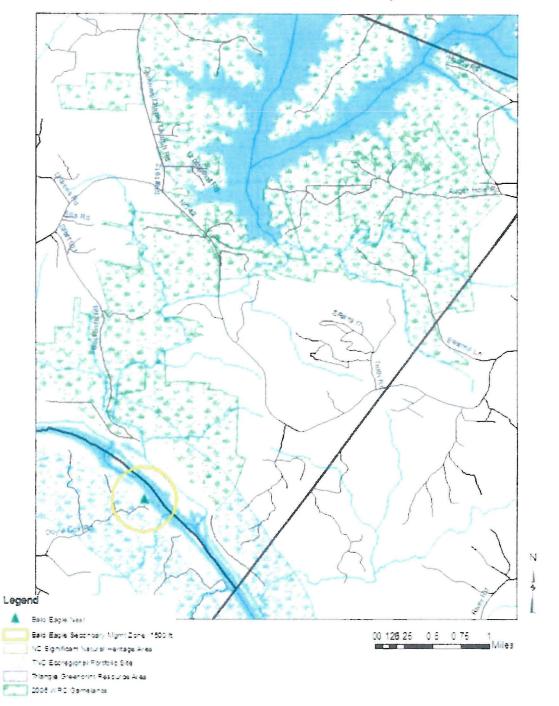
Cc: Steve Reed, NCDWR



Impacts of New Lake Elevation on Terrestrial Wildlife Habitat



PAGE 5



Terrestrial Wildlife Habitat near New Pipeline Route

Snead, Paul

From:	Harry LeGrand [harry.legrand@ncmail.net]
Jent:	Friday, May 25, 2007 12:56 PM
To:	Snead, Paul
Subject:	Re: Progress Energy Information Request

Paul:

I dug into the recesses of my inbox, and there near the bottom, one that I had put aside because of the enormity of a response, was the original January 10 letter with the color maps. Attached was a black-and-white GIS map that I printed out, with our sites and element occurences. Nothing had been sent, as I needed to xerox copies of the Wake County site reports, EO occurrences, etc. -- which will take some time.

So -- I'll get a response to you next week, via snail mail, as I will need to send copies of site reports and occurrence data.

Harry

P.S. THe April 26 letter I sent was in response to a March 27 letter from the US NRC bout the renewal of the operating license -- not the raising of the water level of the lake.

Snead, Paul wrote: > Harry, > > Per our conversation, could you please investigate if you provided a > response to the attached letter requesting information for our proposed > expansion of the Harris nuclear plant site? - Thank you, > */Paul Snead/* > *Lead Environmental Specialist* > *Nuclear Plant Development & License Renewal* > *Progress Energy* > *paul.snead@pgnmail.com* > *(919) 546-2836* > <<NPD-MISC-2007-010.pdf>> > Harry LeGrand NC Natural Heritage Program DENR Office of Conservation and Community Affairs 1601 MSC Raleigh, NC 27699-1601 (919) 715-8697 (work) e-mail: harry.legrand@ncmail.net



North Carolina Department of Environment and Natural Resources

Michael F. Easley, Governor

William G. Ross Jr., Secretary

April 26, 2007

Mr. Rani Franovich U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Subject: Renewal of Operating License for the Shearon Harris Nuclear Power Plant; Wake and Chatham counties, NC

Dear Mr. Franovich:

The Natural Heritage Program has a number of records of rare species, significant natural communities, or significant natural heritage areas on Progress Energy land at the Shearon Harris plant. The enclosed map shows the locations and names of rare plant and animal species and significant natural communities. I have also enclosed summaries and maps of the natural areas that have been identified by our Program that lie on Progress Energy land. The areas are shaded in gray on the general map.

Nearly all of these natural areas and rare species are located on forested lands, some in pinelands, some on hardwood slopes, and a few in wetlands. Though many rare plants and animals are known to occur in North Carolina within powerline rights-of-ways, apparently no such species are known to occur on the Shearon Harris powerline ROWs.

You may wish to check the Natural Heritage Program database website at www.ncnhp.org for a listing of rare plants and animals and significant natural communities in the county and on the quad map.

NC OneMap now provides digital Natural Heritage data online for free. This service provides site specific information on GIS layers with Natural Heritage Program rare species occurrences and. Significant Natural Heritage Areas. The NC OneMap website provides Element Occurrence (EO) ID numbers (instead of species name), and the data user is then encouraged to contact the Natural Heritage Program for detailed information. This service allows the user to quickly and efficiently get site specific NHP data without visiting the NHP workroom or waiting for the Information Request to be answered by NHP staff. For more information about data formats and access, visit <www.nconemap.com/data.html>, or email NC OneMap at <dataq@ncmail.net>.

Please do not hesitate to contact me at 919-715-8697 if you have questions or need further information.

Sincerely,

Hang E. lifture for

Harry E. LeGrand, Jr., Zoologist Natural Heritage Program

1601 Mail Settlice Center, Raleigh, North Carolina 27699-1601 Phone: 919-733-4984 \ FAX: 919-715-3060 \ Internet: www.enr.state.nc.us/ENR/



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SITE NAME: Buckhorn Bluffs and Levees

SIGNIFICANCE: County INTEGRITY: Fair THREATS: Medium -- clearcutting of adjoining areas PROTECTION STATUS: Managed as gamelands by the NC Wildlife Commission through short-term lease with the landowner

JURISDICTION: Cape Fear Township OWNERSHIP:

SUMMARY OF SIGNIFICANT FEATURES:

- 1. Buttercup phacelia (Phacelia ranunculacea), a candidate for state listing, grows abundantly on the rich levees present at this site.
- 2. This site has the most mature and most extensive levee forest in the county.

GENERAL SITE DESCRIPTION:

Just a few miles to the west of this site, the Haw and Deep Rivers join together to form the Cape Fear in the broad bottomlands of the Triassic Basin. Almost immediately, The Cape Fear enters the slate-belt and flows through some extremely rugged terrain before reaching the Fall Line a few miles downstream in Harnett County at Raven Rock State Park. Although hemmed in by steep bluffs on both sides, this initial reach of the Cape Fear is relatively wide even below the low impoundment created by the Buckhorn Dam. Several large areas of alluvial bottomlands are present along the northeast shore, and in some areas levee deposits have created extensive islands, the most distinctive feature of this site.

Levee forests are usually restricted to narrow bands along the larger rivers, and most broad areas of bottomland have been thoroughly exploited with little original forest left. The levee forest at this site is thus noteworthy both for the large area it covers and for the fact that it has been little disturbed, particularly on the larger islands where flooding is frequent and accessibility is limited. On the islands, American elm (Ulmus americana), sweet gum (Liquidambar styraciflua), southern sugar maple (Acer floridanum), bitternut hickory (Carya cordiformis) and swamp chestnut oak (Quercus michauxii) dominate a canopy composed of mature trees up to 72 cm diameter. Shrubs and vines are plentiful, including pawpaw (Asimina triloba), spicebush (Lindera benzoin), possumhaw (Ilex decidua), storax (Styrax grandifolia), greenbriers (Smilax spp.), poison ivy (Toxicodendron radicans) and crossvine (Anisostichus capreolata). In this mature forest the herbs are sparse but fairly diverse, especially on higher spots where such species as Jack-in-the-pulpit (Arisaema triphyllum), broad beech fern (Thelypteris hexagonoptera) and bloodroot (Sanguinaria canadensis) occur.

and hackberry (<u>Celtis laevigata</u>). Shrubs are few but the nero layer is dense. It is in uns area that a broad carpet of the rare buttercup phacelia can be found in the spring, along with such common bottomland herbs as chickweed (<u>Stellaria media</u>), spring beauty (<u>Claytonia</u> <u>virginica</u>), and sweet cicely (<u>Osmorhiza longistylis</u>).

A typical mesic mixed-hardwood forest occupies the steep slopes bordering the bottomlands at this site. While some patches of this forest are fairly intact, most of the area shows the effects of considerable disturbance and exploitation.

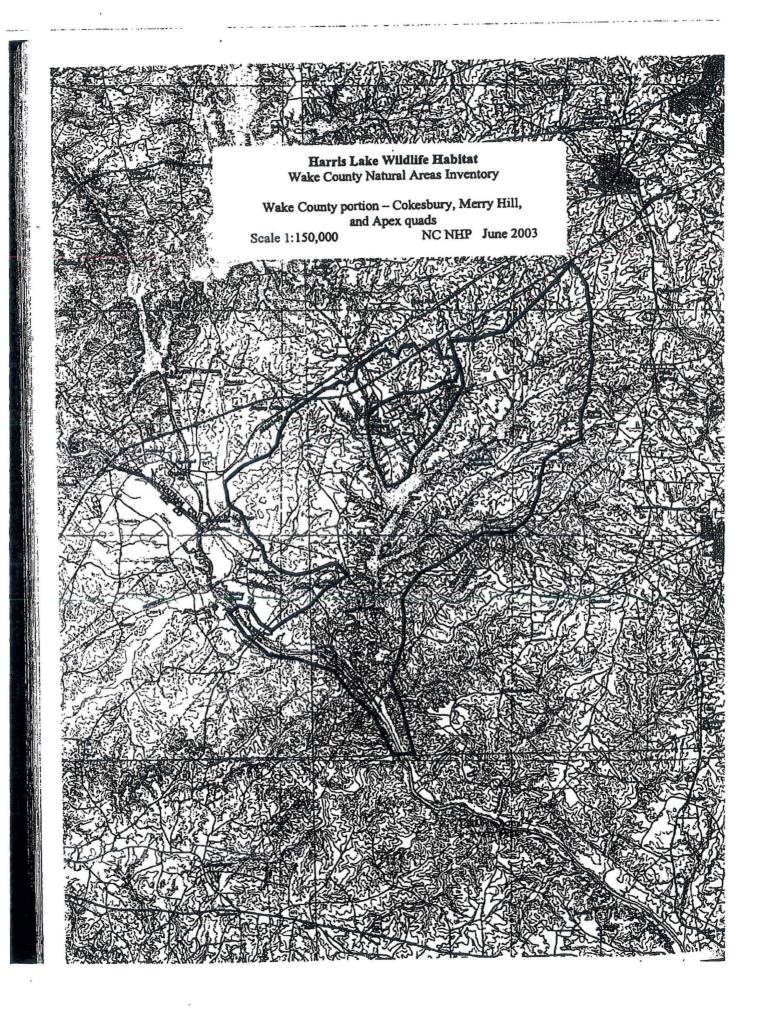
The faunal list for this site is relatively incomplete, reflecting visits made outside the main nesting season for birds. No prothonotary warblers or redstarts were observed, for instance, despite the presence of suitable habitat; the only riparian forest birds we recorded during our April visit were the yellow-throated warbler (<u>Dendroica dominica</u>) and the northern parula warbler (<u>Parula americana</u>), both of which are early migrants. One species of riparian bird that should be especially looked for at this site is the cerulean warbler (<u>Dendroica cerulea</u>), an animal that is virtually restricted in North Carolina to old-growth levee forests along major rivers.

The most noteworthy animals actually observed were the Carolina anole (Anolis carolinensis), which penetrates the piedmont up from the coastal plain primarily along river floodplains, and two typically montane species, the sumo mite (Allothrombium sp.) and a landsnail (Mesomphix sp.), both of which may have been rafted across the river from the steep north-facing slopes on the Lee County side of the river. The presence of river otter (Lutra canadensis), gray fox (Urocyon cinereoargenteus), and pileated woodpecker (Dryocopus pileatus) is indicative of the large amount of undeveloped forest in this part of the county.

CONSERVATION RECOMMENDATIONS:

The bottomlands and levees leased by the NC Wildlife Resources Commission should be spared from further timbering; too little of this type of forest -- critical to wildlife -- exists in a mature state in North Carolina. Further protection for the overall natural area must also involve the preservation of buffer strips of forest left along the slopes and ridge crests above the bottomlands; this might be best approached through the acquisition of conservation easements or a change in forestry management practices to favor selective harvest over clearcutting.

142



Wake County Natural Areas Inventory

HARRIS LAKE WILDLIFE HABITAT

Site Number: 48

Size: about 35,000 acres (about 18,300 acres in Wake County) Quadrangles: Wake County – Cokesbury, Merry Hill, Apex

Site Significance: not rated

Ownership: Progress Energy (Carolina Power & Light Company), other private

SIGNIFICANT FEATURES: This is the largest expanse of undeveloped, privately-owned lands in Wake County, mostly in Progress Energy (Carolina Power & Light Company) ownership. The wildlands site includes Harris Lake and various forested and timbered lands surrounding the lake, and the site extends into neighboring Chatham and Harnett counties, to the Cape Fear River. The area contains the best examples of Piedmont Longleaf Pine Forests in the county, and the Federally Endangered red-cockaded woodpecker (*Picoides borealis*) formerly inhabited the area. A number of rare plants and animals inhabit the site, and the area is important for breeding Neotropical migrant songbirds, game animals, herons, and other species.

LANDSCAPE RELATIONSHIPS: Five standard sites (County or higher significance) are present within this wildlife habitat in Wake County. These are the Jim Branch/Buckhorn Creek Forests, Shearon Harris Longleaf Pine Forest, Hollemans Crossroads Slopes, Hollemans Crossroads Salamander Pools, and Utley Creek Slopes. This wildlife habitat lies as close as a mile at one point from the southern end of the Jordan Laké Wildlife Habitat, near Old US 1 (New Hill area). This site also can be considered continuous with other extensive forested lands along the Cape Fear River, both upstream and downstream (to Raven Rock State Park); however, this wildlife habitat is arbitrarily delineated just east and west of where Buckhorn Creek enters the Cape Fear River.

SITE DESCRIPTION: This site incorporates most of the landholding of Progress Energy, including Harris Lake, but excludes the man-made facilities, such as the Shearon Harris Nuclear Power Plant and the Harris Energy & Environmental Center. Various timber company lands to the west and/or south are included also, as well as lands owned by private individuals in the Hollemans Crossroads area.

The great majority of the wildlife habitat lies in the Chatham Group (also called "Deep River") Triassic Basin. This relatively flat area of sedimentary rock provides very wide floodplains for quite small creeks, and reservoirs in such basins (e.g., Harris Lake, Jordan Lake, Falls Lake) are quite extensive with broad arms. Longleaf pine (*Pinus palustris*) is scattered over the wildlife habitat, and a few areas, such as the Shearon Harris Longleaf Pine Forest and a portion of the Harris Lake County Park, have been actively managed to promote the Piedmont Longleaf Pine Forest natural community. Though much of the wildlife habitat is now timbered, and thus in early successional stages or in pine stands, portions are in hardwoods, especially along moderate to steep slopes. Areas near Utley Creek contain extensive rock outcrops and rich slopes, and

some dry ridges near Harris Lake north of Hollemans Crossroads contain chalk maple (Acer leucoderme), very rare near the Fall Line.

The site is important for uncommon species of animals. Unfortunately, the several clusters of the Federally Endangered red-cockaded woodpecker (*Picoides borealis*) were abandoned by about 1990, owing to fire suppression and lack of recruitment of other birds from nearby areas (for gene flow). Because there are now no active clusters of the species within perhaps 30 miles (in the Sandhills region), there is no need to consider re-introduction of the species into Wake County. The Significantly Rare eastern fox squirrel (*Sciurus niger*), generally a Coastal Plain inhabitant, has recently been seen in the area. A few pools provide habitat for salamanders, including the Special Concern four-toed salamander (*Hemidactylium scutatum*). Great blue herons (*Ardea herodias*) have a nesting colony near Harris Lake, and the Federally Threatened bald eagle (*Haliaeetus leucocephalus*) is seen occasionally at the lake and may well nest in upcoming years in the nearby forests.

Extensive undeveloped lands are important for wildlife such as white-tailed deer (Odocoileus virginianus), wild turkey (Meleagris gallopavo), red-shouldered hawk (Buteo lineatus), and other large vertebrates. Most of the breeding bird species found in Wake County occur in this wildlife habitat. Because of the numerous recent clearcuts, this area of the county contains the largest populations of species requiring shrub/scrub habitats, such as yellow-breasted chat (Icteria virens) and prairie warbler (Dendroica discolor), and species utilizing dead snags, such as red-headed woodpecker (Melanerpes erythrocephalus), are numerous as well.

PROTECTION AND MANAGEMENT: Progress Energy owns the great majority of this wildlife habitat, including Harris Lake and surrounding buffer lands. The company utilizes a number of agencies to help manage their extensive lands. Most of the landholdings (excluding developed areas) are leased to the N.C. Wildlife Resources Commission as the Shearon Harris Game Land (almost 15,000 acres). N.C. State University manages some lands east of the Management Center for longleaf pine restoration. A peninsula south of the Management Center is leased to Wake County for the Harris Lake County Park. A boy scout troop has developed a nature trail next to the Center. Thus, quite a few recreational opportunities exist on these lands, from boating and fishing on the lake, to hiking and picnicking at the park, to hunting on the forested lands.

There is a need to have some type of protection for the natural areas identified in this report, such as conservation easements, or at a minimum the placement on the Registry of Natural Heritage Areas. In fact, Carolina Power & Light Company (now acquired by Progress Energy) did register a site that contained the only remaining active red-cockaded woodpecker cluster on the property in the late 1980's; this site, located along the north side of US 1, has since been deregistered because the birds abandoned the site a few years later. Thus, this company has worked with the NC NHP previously to protect important places there, and the company's willingness to work with other agencies to manage their lands is also favorable for maintaining and improving habitat for rare plants and animals and natural communities. However, Registry agreements are not long-term or permanent, and several sites within the wildlife habitat deserve

stronger or more long-term protection.

Several concerns are apparent with this wildlife habitat. There is much timber management, and thus areas now identified as natural areas, mostly hardwood stands, might be timbered in the future. If not timbered, there is the potential of sale for development. Some of the former Progress Energy lands at the eastern end of the area have recently been sold to the Town of Holly

Springs for an industrial park and/or other development. Thus, a precedent has been set such that other lands somewhat far removed from the power plant could be sold in the near future.

This wildlife habitat can be connected southward along Buckhorn Creek to the Cape Fear River, which has a fairly wide floodplain extending far upstream into Chatham, Lee, and Moore counties and downstream to Raven Rock State Park (in Harnett County) and farther into the Coastal Plain. There is thus a connection to the Jordan Lake Game Land northward from the Cape Fear. Old US 1, a 2-iane road, lies between this wildlife habitat and the Jordan Lake Wildlife Habitat, barely a mile away. This road is not a barrier to large animals, and there is relatively little traffic and development along this road now that US 1 has been constructed. It is possible that a connector between Corps lands at Jordan and Progress Energy lands at Harris can be made. However, the 4-lane US 1, with its wide median, forms a bit of an animal movement barrier south of Old US 1. At least, there are fingers of Harris Lake that extend northward past US 1 that could make a connection to Jordan lands, if conservation organizations feel that this connection is a high priority.

NATURAL COMMUNITIES (Wake County): Mesic Mixed Hardwood Forest (Slope variant), Dry-Mesic Oak-Hickory Forest, Dry Oak-Hickory Forest, Piedmont Longleaf Pine Forest, Basic Oak-Hickory Forest, Floodplain Pool, Piedmont/Low Mountain Alluvial Forest

RARE PLANTS (Wake County): Virginia spiderwort (*Tradescantia virginiana*), Lewis's heartleaf (*Hexastylis lewisii*); Watch List – nestronia (*Nestronia umbellula*), American lotus (*Nelumbo lutea*)

RARE ANIMALS (Wake County): four-toed salamander (*Hemidactylium scutatum*), redcockaded woodpecker (*Picoides borealis*), eastern fox squirrel (*Sciurus niger*), black vulture (*Coragyps atratus*), Lemmer's pinion [moth] (*Lithophane lemmeri*)

REFERENCES:

- LeGrand, H.E., Jr. 1987. Inventory of the natural areas of Wake County, North Carolina. Report to Triangle Land Conservancy, N.C. Natural Heritage Program, and Wake County Parks and Recreation Commission.
- LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake County Park Natural Area. N.C. Natural Heritage Program, DPR, DENR, Raleigh.
- LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake Hollemans Crossroads Slopes. N.C. Natural Heritage Program, DPR, DENR, Raleigh.

LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake – Jim Branch/Buckhorn Creek Forests. N.C. Natural Heritage Program, DPR, DENR, Raleigh.

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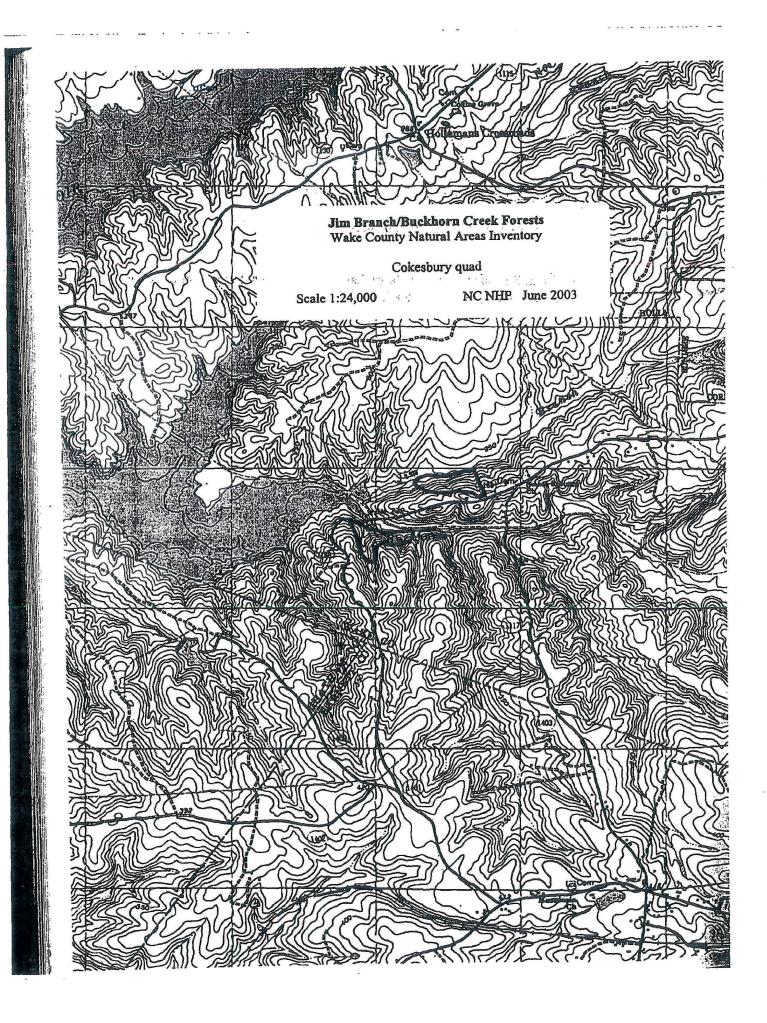
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Wiecek, C. 2002. Site survey report: Holly Springs Four-toed Salamander Site, N.C. Natural Heritage Program, DPR, DENR, Raleigh



Wake County Natural Areas Inventory

JIM BRANCH/BUCKHORN CREEK FORESTS

		· · · · ·	¥	10
Site Number:	44	· · · ·	1.1	Size: about 25 acres
Site Significa	nce: County			Quadrangle: Cokesbury
Ownership:	Progress Energ	y (Carolina Power	&	Light Company), other private

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SIGNIFICANT FLATURES: There are fairly rich hardwood slopes at the site, and the presence of both showy orchis (Orchis spectabilis) and lily-leaved twayblade (Liparis lilifolia) indicates rich soils. The natural area contains a nesting colony of great blue herons (Ardea herodias) along Jim Branch. · · · · · · · · ·

LANDSCAPE RELATIONSHIPS: The site is roughly 2 miles south of the Hollemans Crossroads Slopes. It is part of the Harris Lake Wildlife Habitat site that encompasses much of the southwestern corner of Wake County and extends into neighboring Chatham and Harnett counties.

SITE DESCRIFTION: The natural area consists of two separate portions – slopes along Buckhorn Creek, south of Cass Holt Road (SR 1188); and slopes and creek along Jim Branch (north of the road). Both areas have fairly rich hardwood slopes, mostly with Mesic Mixed Hardwood Forest and some Dry-Mesic Oak-Hickory Forest. Along Jim Branch is a moderatesized colony of nesting great blue herons (Ardea herodias). On the site visit, about 32 nests were counted in six to seven trees, mostly in mature lobiolly pines (Pinus taeda); this is apparently the largest known colony in the county and one of the larger ones for the eastern Piedmont.

The primary natural community at the site is Mesic Mixed Hardwood Forest. The portion along Buckhorn Creek, especially along an unnamed tributary, is of good quality. The slope facing Buckhorn Creek is somewhat of a dry example of this type. The canopy contains much American beech (Fagus grandifolia), along with white oak (Quercus alba) and white ash (Fraxinus americana). Hop-hombeam (Ostrya virginiana) dominates the understory, but Florida maple (Acer barbatum) is numerous. The shrub layer is moderate, featuring dry-mesic species such as fringetree (Chionanthus virginicus), maple-leaved viburnum (Viburnum acerifolium), downy arrowwood (V. rafinesquianum), and pink azalea (Rhododendron periclymenoides). The herb layer is sparse, dominated by Christmas fern (Polystichum acrostichoides).

On the tributary streams, especially the one to the west, the soil is richer and herb diversity increases. Tuliptree (Liriodendron tulipifera) and northern red oak (O. rubra) are major canopy components. Hop-hornbeam is common in the understory. The herb layer contains much Christmas fern, and broad beech fern (*Thelypteris hexagonoptera*) is locally abundant, as is hogpeanut (Amphicarpa bracteata). Black cohosh (Cimicifuga racemosa) is widespread and conspicuous, and a few showy orchis (Orchis spectabilis) plants are present.

The Mesic Mixed Hardwood Forest on the north-facing slope above Jim Branch is quite a bit different. Here, the canopy is much taller, dominated by 100-110' tall tuliptrees. Northern red oak is numerous. Redbud (*Cercis canadensis*) and hop-hornbeam are common in the understory. The shrub layer is mostly seedlings of redbud, with thousands of young trees dominating the slope. Christmas fern and broad beech fern are also abundant on these slopes. At the foot of the slopes, bigleaf snowbell (*Styrax grandifolia*) is common. There are few wildflowers on this slope, though a scattering of lily-leaved twayblade (*Liparis lilifolia*) is present.

The Dry-Mesic Oak-Hickory Forest occurs in the Buckhorn Creek portion but is not widespread. White oak dominates the canopy, but some scarlet oak (*Q. coccinea*) is present. Understory trees such as flowering dogwood (*Cornus florida*), sourwood (*Oxydendrum arboreum*), and American holly (*Ilex opaca*) mix with the hop-hornbeam. Ericads such as deerberry (*Vaccinium stamineum*) are present in the shrub layer; and the herb layer is sparse, with woodland tick-trefoil (*Desmodium nudiflorum*) the most common species.

PROTECTION AND MANAGEMENT: Most of the natural area is owned by Progress Energy (Carolina Power & Light Company) and managed by the N.C. Wildlife Resources Commission as the Shearon Harris Game Land. The site is unprotected. There is probably little need for Registry as a Natural Heritage Area at the present time. Additional field work is recommended, as is additional monitoring of the heronry.

No timber harvest should be done in the area. The heronry site especially needs to be set aside from the timber base. The herons require tall trees, preferably in water, for nesting, Interestingly, most of the nest trees are on dry land. Unfortunately, silverberry (*Elaeagnus umbellata*) has escaped on the slopes and may be too far advanced in the natural area for control. Nonetheless, some control of this invasive shrub might be worth initiating.

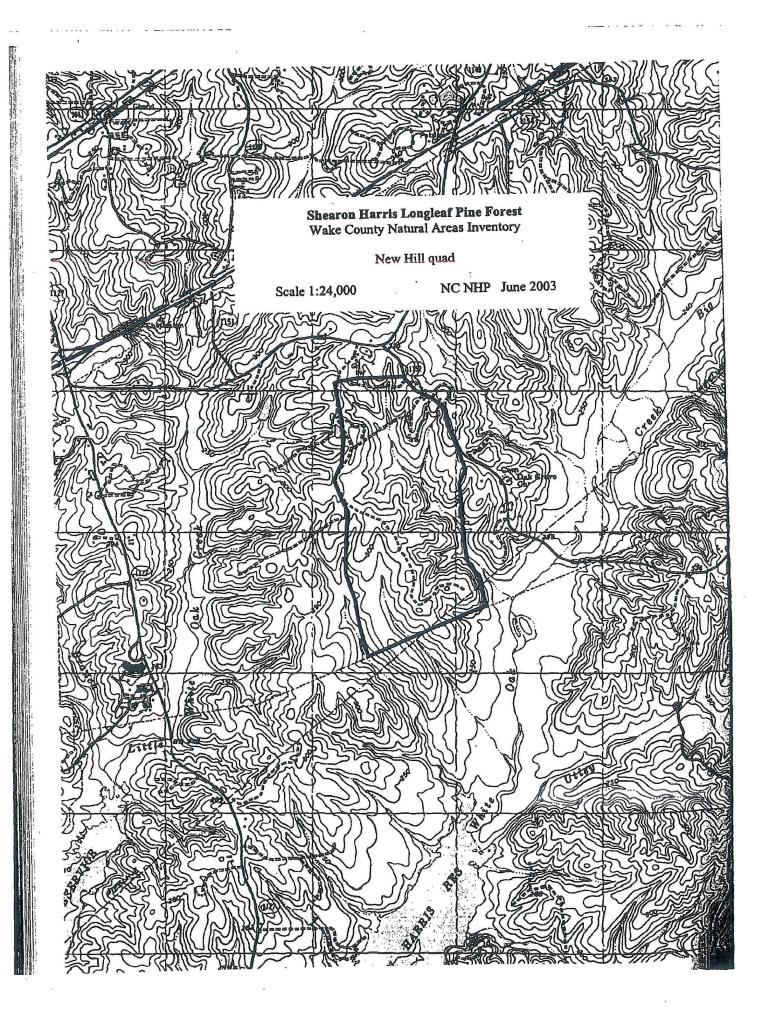
NATURAL COMMUNITIES: Mesic Mixed Hardwood Forest (Slope variant), Dry-Mesic

Oak-Hickory Forest

REFERENCES:

REFERENCES: LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake – Jim Branch/Buckhorn Creek Forests. N.C. Natural Heritage Program, DPR, DENR, Raleigh.

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Wake County Natural Areas Inventory

SHEARON HARRIS LONGLEAF PINE FOREST

Site Number: 40Size: about 360 acresSite Significance: RegionalQuadrangle: New HillOwnership: Progress Energy (Carolina Power & Light Company)

SIGNIFICANT FEATURES: There are a few hundred longleaf pines (*Pinus palustris*) scattered over this part of the Shearon Harris property, one of the better concentrations of this species in the county. The area features a rare Piedmont Longleaf Pine Forest natural community.

LANDSCAPE RELATIONSHIPS: The site lies about a mile northwest of the Utley Creek Slopes natural area. The Hollemans Crossroads Slopes is also about 1-1.5 miles away, across Harris Lake to the south. The natural area is included within the Harris Lake Wildlife Habitat site.

SITE DESCRIPTION: This natural area is located in the southwestern portion of Wake County, just northeast of Harris Lake. It lies just southwest of Holly Springs - New Hill Road (SR 1152): The natural area consists of gently rolling slopes in the Triassic Basin. The area is a remnant Piedmont Longleaf Pine Forest that has long been fire-suppressed but is now being managed by North Carolina State University to restore the longleaf pine (*Pinus palustris*) stand. The central half of the site was harvested within the past few years with a seed-tree cut, leaving only widely scattered longleaf pines. Surrounding this is a more typical mixed forest, dominated by loblolly pines (*P. taeda*) but with widely scattered longleaf pines.

Two "forms" of Piedmont Longleaf Pine Forest are present in the natural area: 1) natural, firesuppressed; and 2) 'artificially opened.' The natural, fire-suppressed stands that surround the cut area appear to have been selectively thinned over time, with canopies generally touching but not dense. The thinnings have kept the forests mostly with a pine canopy rather than a more even hardwood-pine mix. In general, the stands average 65-75' tall, and in some places are probably around 80' tall. Loblolly pine is the dominant tree. Shortleaf pine (*P. echinata*) is widely scattered, and here and there are longleaf pines. There are just enough longleaf pines to identify the community as this type. Widespread hardwoods, mostly in the subcanopy but a few reaching the canopy, are sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), white oak (*Quercus alba*), and southern red oak (*Q. falcata*): The understory is often fairly dense with these hardwoods. The shrub layer is typically dense with ericaceous species; the most numerous are dangleberry (*Gaylussacia frondosa*), deerberry (*Vaccinium stamineum*), lowbush blueberry (*V. tenellum*), and staggerbush (*Lyonia mariana*). Herbs are spotty, and are found mainly along road margins and other openings. Common are goat's-rue (*Tephrosia virginiana*) and rosinweed (*Silphium compositum*).

The artificially opened area is a large clearcut in the center of the area, harvested of all trees

except longleaf pines perhaps 2-3 years ago. After the harvest, a burn was conducted, and smoke from the burn was still evident on the site visit, even though the cleared area was mostly vegetated in herbaceous species. Widely scattered longleaf pines 40-60' tall are present, though none appear old enough to produce cones. A few of the pines have been killed by the fire. The ground contains somewhat weedy native species – seedlings of red maple and sweetgum; winged sumac (*Rhus copallina*), blackberry (*Rubus argutus*), dog-fennel (*Eupatorium capillifolium*), toadflax (*Linaria canadensis*), pokeweed (*Phytolacca americana*), horseweed (*Conyza canadensis*), broomsedge (*Andropogon* sp.), and others.

PROTECTION AND MANAGEMENT: This natural area is owned by Progress Energy (Carolina Power & Light Company). It has been leased to North Carolina State University to manage for re-establishment of longleaf pine and the Piedmont Longleaf Pine Forest community. When the management of the site is farther along, with seedling longleaf pines established, there may be a need to discuss protection in terms of a Registry of Natural Heritage Areas agreement. However, the site is still undergoing active management, so it appears best not to be concerned with Registry in the interim.

Both N.C. State University and Progress Energy are actively involved with the management of the site. A 135-acre site was burned in the fall of 1998, and the natural regeneration harvest to release longleaf pine was done in 1999. There will be periodic burning of the study tract, and monitoring/sampling plots have been established by the N.C. Vegetation Survey program (Gary Blank, pers. comm.).

The cleared area should be burned frequently (every 2-3 years at the longest) in order to keep sweetgums, loblolly pines, and other trees from invading the site. It is recommended that no further clearcutting be done in the natural area surrounding the cleared study area. However, this surrounding area could be burned in the winter. Or, there could be thinning of some trees surrounding the longleaf pines, yet keeping the area still in a forested condition. Re-introduction of other plants characteristic of this natural community might be considered; wiregrass (*Aristida stricta*) is found at a few such Piedmont sites elsewhere, though it might be difficult and labor-intensive for establishment of this grass.

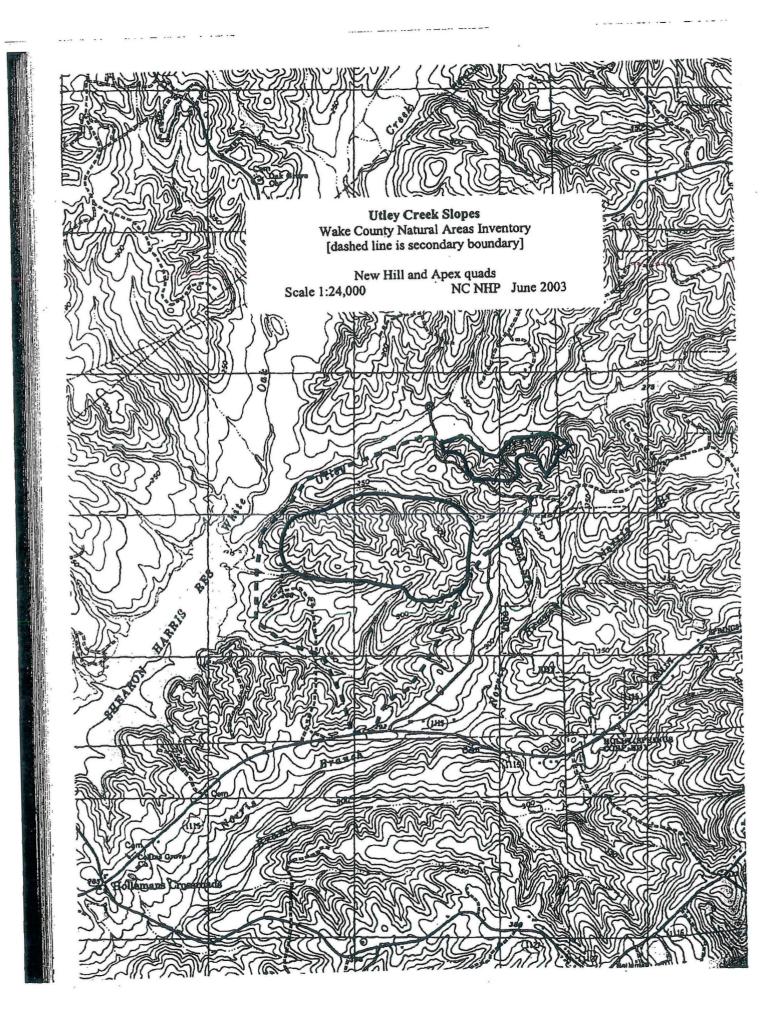
NATURAL COMMUNITIES: Piedmont Longleaf Pine Forest

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REFERENCES:

LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake – Longleaf Pine Forest. N.C. Natural Heritage Program, DPR, DENR, Raleigh.

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Wake County Natural Areas Inventory

UTLEY CREEK SLOPES

Site Number: 43	÷	н.	·	Size: about 590 acres (220 in primary area)
Site Significance: Regi	onal			Quadrangles: New Hill, Apex
Ownership: Progress E	nergy (Car	olina Powe	r&L	ight Company)

SIGNIFICANT FEATURES: The natural area has a very large extent of Dry Oak-Hickory Forest, and much exists in good to excellent condition. The site has a very large outcropping of sedimentary rocks for the Triangle area, as the site lies in the Triassic Basin. The rocks harbor "caves", as well as waterfalls during good water flow conditions. Several slopes contain Virginia spiderwort (*Tradescantia virginiana*), Significantly Rare and a first Wake County record.

LANDSCAPE RELATIONSHIPS: Immediately to the west is the Hollemans Crossroads Slopes, and the Hollemans Crossroads Salamander Pools is just to the southwest. The Shearon Harris Longleaf Pine Forest lies to the northwest by about a mile. The natural area is a part of the much larger Harris Lake Wildlife Habitat site:

SITE DESCRIPTION: The natural area, on Shearon Harris lands in the southwestern part of the county, contains two primary areas and consists of moderate slopes north of Old Avent Ferry Road (SR 1115) to steep north-facing slopes adjacent to Utley Creek. Much of the area consists of mature hardwood forests, including a considerable acreage of Dry Oak-Hickory Forest, not usually found in sizable stands in the county.

There are numerous exposed sedimentary rocks along steep slopes such as side ravines and along Utley Creek. These rocks are not exposed on their tops, but mainly on their sides (vertical erosion). Under some there are small "caves" extending back about 10 feet and up to 4-5 feet tall; the caves are mostly wedges in the rocks. Other rocks are exposed along creeks, such that when one is walking upstream, a creek appears to end at a rock, or the stream falls 5-8 feet over the rock as a small waterfall.

Three main natural communities appear to be present, though only the first two are of high quality. Dry Oak-Hickory Forest is prevalent along an east-west ridge in the center of the natural area. This is one of the best, or the most extensive, examples in the Triangle area. The mature canopy is dominated by white oak (*Quercus alba*), with considerable post oak (*Q. stellata*), southern red oak (*Q. falcata*), pignut hickory (*Carya glabra*), and a few other oak species. Virginia red-cedar (*Juniperus virginiana*) is scattered in the understory. Other understory trees include sourwood (*Oxydendrum arboreum*) and black gum (*Nyssa sylvatica*). The shrub layer is quite dense. Downy arrowwood (*Viburnum rafinesquianum*) is scattered, though much less common than in the next community. Blueberries are abundant, including deerberry (*Vaccinium stamineum*) and lowbush blueberry (*V. pallidum*). There are some "glady" openings with various grasses and forbs, such as rattlesnake-weed (*Hieracium venosum*) and

summer bluet (Houstonia purpurea).

Dry-Mesic Oak-Hickory Forest is the most common community in the natural area. Some of the ridges, and most of the mid- and lower slopes, contain this community, the most common natural community in Wake County. White oak is the dominant tree. A few other oaks are present in the canopy along with pignut hickory, tuliptree (*Liriodendron tulipifera*), and an occasional sweetgum (*Liquidambar styraciflua*). The well-developed understory has flowering dogwood (*Cornus florida*), red maple (*Acer rubrum*), black gum, and sourwood as common components. The shrub layer contains an abundance of downy arrowwood. A scattering of ericads such as deerberry are present. The sparse herb layer contains vines such as muscadine (*Vitis rotundifolia*) and Virginia creeper (*Parthenocissus quinquefolius*).

On the steeper slopes, especially the north-facing ones such as along Utley Creek, are acidic examples of Mesic Mixed Hardwood Forest. These are shrub- and herb-poor types compared to others on rich soils. As with other types, American beech (*Fagus grandifolia*) is a canopy dominant. Hop-hornbeam (*Ostrya virginiana*) dominates the understory, but Florida maple (*Acer barbatum*) is locally common. The shrub layer is poor, such that it is easy to observe long distances through the community. Typical herbs are Christmas fern (*Polystichum acrostichoides*), dwarf heartleaf (*Hexastylis minor*), dittany (*Cunila origanoides*), and crested dwarf iris (*Iris cristata*). The Significantly Rare, Virginia spiderwort (*Tradescantia virginiana*), not previously known from Wake County, is found on several gentle slopes. This herb occurs in just a handful of lower Piedmont counties in the state and is normally found on high pH soils.

The Special Concern black vulture (*Coragyps atratus*) was noted during the site visit and is likely nesting at the site or nearby. This extensive hardwood forest is likely important nesting habitat for many Neotropical migrant songbirds.

PROTECTION AND MANAGEMENT: The natural area is wholly owned by Progress Energy (Carolina Power & Light Company) and is part of the Shearon Harris Game Land managed by the N.C. Wildlife Resources Commission. The natural area has no current protection but definitely should be pursued for protection as a Registered Natural Heritage Area. Because it is considered of Regional significance, a stronger measure of protection such as a conservation easement might be warranted.

Some effort is needed to clearly delineate the natural area. Presently, this description covers two separate areas, bisected by a dirt road and pine stands. Thus, an additional site visit or two might be necessary to more clearly define the area worthy of protection.

Most of the area should be set aside with no management. Any timber harvest should be limited to pines. A green-tree reservoir just north of the rocky slopes and bluffs is an eye-sore, especially being nearly dry, and it has impacted the floodplain of the creek. Instead of a shady, forested floodplain, it is a sunny, baked area with many dead trees and some exposed mud. It might be best to allow the area to return to a forested condition, if that can be done.

NATURAL COMMUNITIES: Dry Oak-Hickory Forest, Dry-Mesic Oak-Hickory Forest, Mesic Mixed Hardwood Forest (Slope variant)

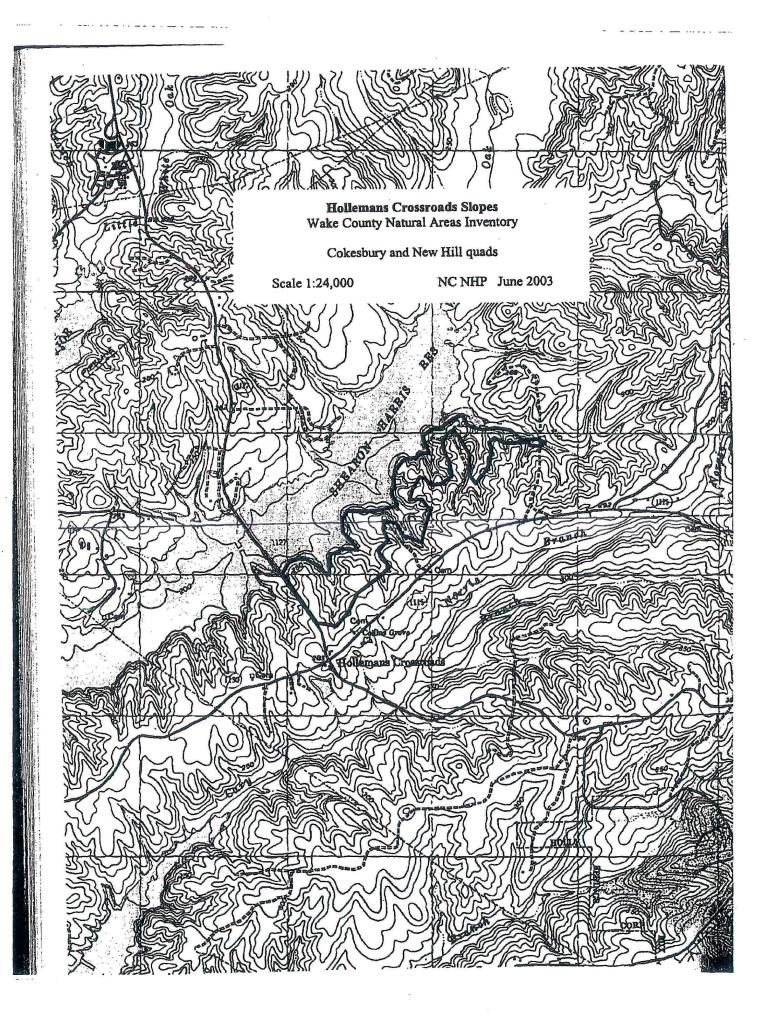
RARE PLANTS: Virginia spiderwort (Tradescantia virginiana)

RARE ANIMALS: Black vulture (Coragyps atraius)

REFERENCES:

LeGrand, H.E., Jr. 2002. Site survey report: Harris Lake – Utley Creek Slopes. N.C. Natural Heritage Program, DPR, DENR, Raleigh.

27



Wake County Natural Areas Inventory

HOLLEMANS CROSSROADS SLOPES

Site Number:41Size: about 135 acresSite Significance:CountyQuadrangles:Cokesbury, New HillOwnership:Progress Energy (Carolina Power & Light Company), other private

SIGNIFICANT FEATURES: The natural area contains unusual ridges of sedimentary rocks with a mafic influence; though likely over felsic rock. There is an abundance of chalk maple (*Acer leucoderme*), which is very rare in the eastern Piedmont. The site contains a good diversity of shrubs and small trees of "mafic" character on some slopes and ridges. American lotus (*Nelumbo lutea*), a Watch List species, occurs as several stands in coves at the lake.

LANDSCAPE RELATIONSIPS: This site lies very close – a few hundred yards -- to Utley Creek Slopes and could be combined into a single large site of Regional significance. The Hollemans Crossroads Salamander Pools site lies adjacent to the southeast, along Old Avent Ferry Road (SR 1115). Across the lake to the north lies the Shearon Harris Longleaf Pine Forest. The natural area is a part of the much larger Harris Lake Wildlife Habitat site.

SITE DESCRIPTION: The Holleman's Crossroads Slopes is a narrow southwest-northeast corridor along the edge of Harris Lake. It consists of many rather narrow ridges and ravines, including some steep slopes overlooking the lake. Most of these slopes contain mature hardwood forests, over slightly acidic to nearly circumneutral soils in the Triassic Basin.

The site contains three main communities, with the most significant being Basic Oak-Hickory Forest. This type lies on dry ridges, especially near their ends overlooking the lake. The canopy is dominated by white oak (*Quercus alba*), but a variety of other oaks and hickories is present. The understory contains much white ash (*Fraxinus americana*), but chalk maple (*Acer leucoderme*) is quite common and is the indicator species for this community, which lies over "shaly" soil that has a mafic character. This maple is seemingly unknown elsewhere in Wake County. The shrub layer is dominated by dense stands of downy arrowwood (*Viburnum rafinesquianum*). Mafic conditions are indicated by the presence of species such as bigleaf snowbell (*Styrax grandifolia*) and the near lack of ericads. There are very few herbs.

Slopes more to the southwest, toward New Hill - Holleman Road (SR 1127), are covered in Dry Oak-Hickory Forest. White oak again is the dominant tree. Scarlet oak (*Q. coccinea*) is present, along with other oaks and hickories. Sourwood (*Oxydendrum arboreum*) is common in the subcanopy. The shrub layer is dense, with downy arrowwood being abundant but ericads being widespread, such as deerberry (*Vaccinium stamineum*) and dangleberry (*Gaylussacia frondosa*). Some light gaps contains various grasses.

Slopes facing the lake contain a dry subtype or variant of Mesic Mixed Hardwood Forest, which has some elements of a Heath Bluff. Though American beech (*Fagus grandifolia*) is dominant,

indicating this community, openings contain herbs that are typical of drier soils, such as white goldenrod (Solidago bicolor) and wavy-leaved aster (Aster undulatus). The understory contains hop-hornbeam (Ostrya virginiana), chalk maple, American hornbeam (Carpinus caroliniana), and some redbud (Cercis canadensis). Downy arrowwood is common, and witch-hazel (Hamamelis virginiana) is also numerous.

the state of the state of the PROTECTION AND MANAGEMENT: Nearly all of the natural area is owned by Progress Energy (Carolina Power & Light Company); a small area at the southern end is in other private ownership. The Progress Energy lands are leased to the N.C. Wildlife Resources Commission as the Shearon Harris Game Land. The natural area is worthy of protection, especially the portions with chalk maple, as a Registered Natural Heritage Area, as currently there is no protection for the site. Because this site is somewhat different - a "mafic" character over sedimentary rock from others in the county, stronger protection such as a conservation easement might be pursued.

No management is needed. No timber, at least hardwoods, should be removed from the site. Currently, the only trails on Shearon Harris property are the White Oak Nature Trail and trails located at the Wake County park. The natural area would be suitable for hosting a hiking trail near the lakeshore. Such a trail might conflict with hunting interests, but there is a considerable land base along the lakeshore that would be very suitable for a lengthy hiking trail.

NATURAL COMMUNITIES: Basic Oak-Hickory Forest, Dry Oak-Hickory Forest, Mesic Mixed Hardwood Forest (Slope variant)

the second stand and the second standard and the second standard standard standard standard standard standard s RARE PLANTS: Watch List - American lotus (Nelumbo lutea)

REFERENCES:

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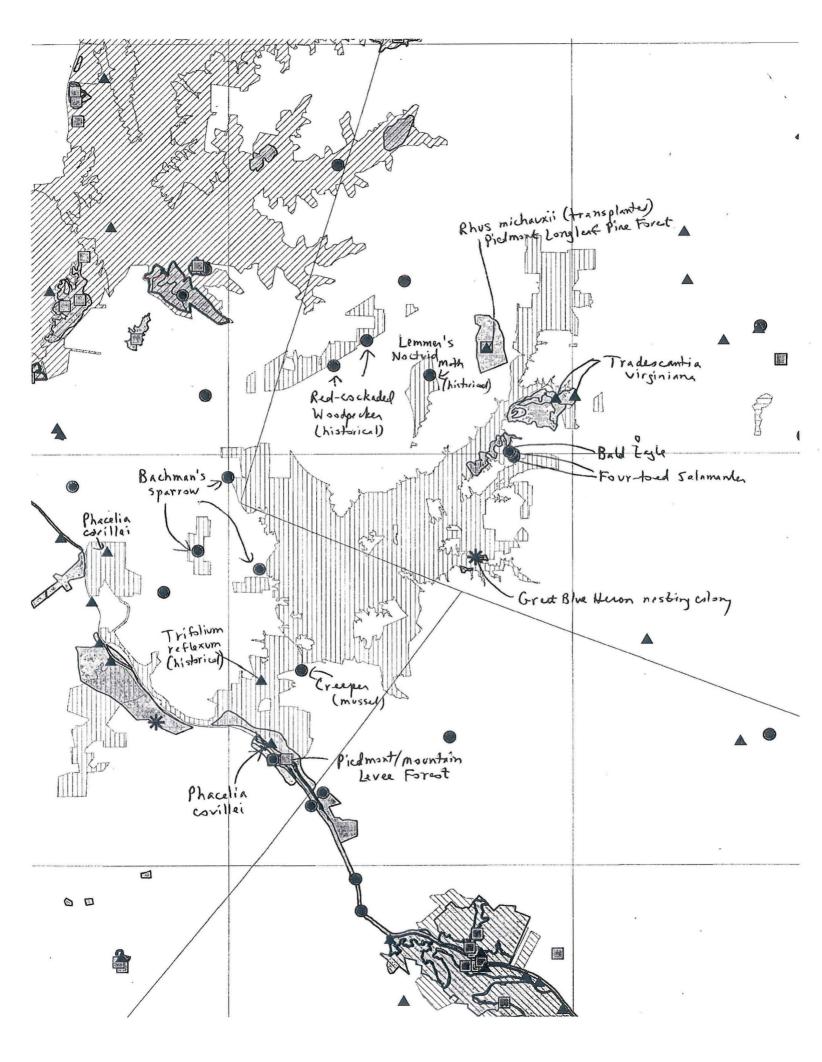
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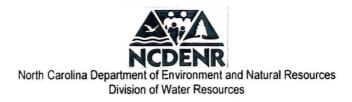
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William G. Ross Jr., Secretary John N. Morris, Director

Receive

SEP 0 5 2007

Michael F. Easley, Governor

August 28, 2007

Mr. Paul Snead Lead Environmental Specialist, Nuclear Plan Development & License Renewal Progress Energy Carolinas, Inc. PO Box 1551 TPP 15 Raleigh, NC 27602

SUBJECT: Metering of Progress Energy Water Use by Shearon Harris Nuclear and Cape Fear Steam Plants

Dear Mr. Snead,

Thank you for meeting with us on May 15 to discuss the plans to expand Progress Energy's Shearon Harris nuclear energy plant.

In the meeting, we discussed the need for more accurate water use estimates at both the Shearon Harris and Cape Fear steam plants. More accurate water use estimates will allow better hydrologic modeling of the water resources in the Cape Fear River Basin, and ultimately help all water users, including Progress Energy, to better manage our water resources.

In the meeting, the Division agreed to communicate with stakeholders in the Cape Fear basin and respond to you after clearly defining the metering needs. After consulting with stakeholders, we have defined the following needs:

- A measure of the daily consumptive water use by the Cape Fear steam plant. Consumptive use is
 the amount of water removed from the river and not returned. Therefore, we would need to
 accurately measure the daily amounts removed from the river and the daily amounts returned.
- A measure of the daily consumptive water use by the Shearon Harris nuclear plant. Again, we would need to accurately measure the daily amounts removed from the river and the daily amounts returned.

DWR staff is available to work with you to identify how best to implement these measurements. Please direct questions to Phil Fragapane at 919-715-0389 (phil.fragapane@ncmail.net).

We appreciate your continued cooperation in managing North Carolina's water resources.

Sincerely,

n. Mens

John N. Morris

Cc: Mick Greeson, Progress Energy

1611 Mail Service Center, Raleigh, North Carolina 27699-1611 Phone: 919-733-4064 \ FAX: 919-733-3558 \ Internet: www.ncwater.org An Equal Opportunity\Affirmative Action Employer-50% Recycled\10% Post Consumer Paper



North Carolina Department of Cultural Resources

State Historic Preservation Office Peter B. Sandbeck, Administrator

Michael F. Easley, Governor Lisbeth C. Evans, Secretary Jeffrey J. Crow, Deputy Secretary Office of Archives and History Division of Historical Resources David Brook, Director

August 20, 2007

Robert H. Kitchen, Manager Nuclear Plant Licensing Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602

Re: Shearon Harris Nuclear Power Plant Potential Expansion, Chatham and Wake Counties, ER 06-2238

Dear Mr. Kitchen:

Thank you for your letter of May 16, 2007, transmitting the archaeological survey report of the proposed water make-up line and the archaeological survey plan for the lake expansion by Christopher Espenshade and staff of New South Associates, Inc. We apologize for the delay in our response.

For purposes of compliance with Section 106 of the National Historic Preservation Act, we concur that the following properties are not eligible for listing in the National Register of Historic Places under criterion D:

31CH846, 31CH847&847**, 31CH848**, 31CH849**, 31CH850

None of these sites retain sufficient integrity to yield information important to history or prehistory.

The Marks Cemetery, 31CH853**, is located outside the Area of Potential Effect (APE) and was not evaluated for its eligibility for the National Register of Historic Places.

The report for the proposed water make-up line meets our office's guidelines and those of the Secretary of the Interior. We concur with Mr. Espenshade's recommendation that no additional archaeological survey is warranted in connection with the proposed water line.

We have also reviewed the archaeological survey plan for the proposed expansion of Harris Lake developed by New South Associates staff in consultation with the Office of State Archaeology.

The plan includes provisions for a reconnaissance survey of low probability areas, Phase I survey of high probability landforms, mapping and shovel testing at the two known mill sites and a phased program of deep testing in areas with potential for stratified archaeological sites. The plan also eliminates 1130.5 acres from additional investigation due to disturbance and actively meandering streams.

ADMINISTRATION RESTORATION SURVEY & PLANNING Location 507 N. Blount Street, Raleigh NC 515 N. Blount Street, Raleigh NC 515 N. Blount Street, Raleigh, NC Mailing Address 4617 Mail Service Center, Raleigh NC 27699-4617 4617 Mail Service Center, Raleigh NC 27699-4617 4617 Mail Service Center, Raleigh NC 27699-4617 Telephone/Fax (919)733-4763/733-8653 (919)733-6547/715-4801 (919)733-6545/715-4801 We concur with the plan and look forward to working with New South Associates, Inc. on implementation of the plan if the expansion of the Shearon Harris Nuclear Plant proceeds. If sites 31CH851** and 31CH852**, the two chimney sites, are affected by the proposed lake expansion, additional investigation will be needed to evaluate their National Register eligibility.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Renee Gledhill-Earley, environmental review coordinator, at 919/733-4763, ext. 246. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

Veree Gledhill-Early Peter Sandbeck

Christopher Espenshade, New South Associates, Inc.



May 23, 2008 NPD-MISC-2008-014

Mr. Frederick Gaske, Director Division of Historical Resources Office of Cultural and Historical Programs Compliance and Review Section 500 S. Bronough Street Tallahassee, FL 32399-0250

RE: CULTURAL RESOURCES INVESTIGATIONS AT THE PROPOSED LEVY NUCLEAR PLANT SITE, LEVY COUNTY

Dear Mr. Gaske:

As discussed in conversations throughout 2007 with Laura Kammerer and others in your office, Progress Energy Florida (PEF) is evaluating the potential impacts to cultural resources at the proposed Levy Nuclear Plant (LNP) site in Levy County. The proposed LNP site would include the construction of the plant site, transmission corridors, a heavy haul road, blowdown pipeline and other associated facilities.

Our archaeological contractor, New South Associates, has completed a Phase 1 archaeological survey of the LNP site; the Progress Energy-owned property south of the LNP site, to be used for the heavy haul road and a transmission corridor; and the blowdown pipeline corridor. CH2M HILL has completed standing structures surveys on the same properties. The other transmission line corridors will be submitted under separate cover as the plans for their locations are finalized. These surveys did not locate any NRHP-eligible or-listed properties. Based on these findings, no further work is recommended at these locations.

Enclosed please find the Cultural Resources Investigation for the LNP Site and Associated Facilities describing in detail the surveys and the results. We are asking for your concurrence with the findings of eligibility based on the standing structures and archaeological surveys.

We would also appreciate knowing if you concur with our planned procedures for inadvertent discoveries during construction activities. PEF has guidelines for employees and contractors designed to protect historic sites, historic landmarks, and artifacts or archaeological sites during land-disturbing activities. If a project or work activity inadvertently uncovers an archaeological site or other historical artifacts, activities in the site area will be halted, and the appropriate PEF Environmental Support Organization (ESO) will be contacted. For the LNP project, Environmental Health and Safety Services (EHSS) would be the PEF ESO and thus would be contacted. In the event of an inadvertent find, a cultural resource assessment will be performed, and PEF, through EHSS, will consult with the SHPO, as necessary, to determine appropriate steps to be taken prior to resuming site activities. PEF will coordinate directly with the Florida SHPO to determine appropriate mitigation or other measures, as needed, in accordance with federal and state regulations and PEF policy.

Progress Energy Carolinas, Inc. PO. Box 1551 Baleigh, NC 27602 Office of Cultural and Historical Programs NPD-MISC-2008-014 Page 2

Please refer any questions regarding these documents to Mr. Paul Snead, Lead Environmental Specialist at (919) 546-2836.

Sincerely, ht & Ktt

Robert H. Kitchen Manager, Nuclear Plant Licensing

Enclosure: "Cultural Resource Investigation for the LNP Site and Associated Facilities"

cc: Paul Snead, PE Patty West, PE Dave Bruzek, PE Sara Orton, CH2M HILL



NPD-MISC-2008-017 August 18, 2008

Mr. Peter Sandbeck Administrator, State Historic Preservation Office Deputy State Historic Preservation Officer 4617 Mail Service Center Raleigh NC 27699-4617

RE: Proposed Expansion, Harris Nuclear Plant, ER 06-2238

Dear Mr. Sandbeck:

Progress Energy is considering the expansion of Harris Nuclear Plant, in Wake and Chatham Counties, North Carolina. During a recent audit by the Nuclear Regulatory Commission (NRC), it was requested that we reiterate our intent to follow the requirements of Section 106 of the National Historic Preservation Act, as outlined in our archaeological survey plan submitted to your office earlier this year. Our purpose in writing you today is to strengthen the record and to clarify our intent.

You may recall that the Areas of Potential Effect (APEs) for cultural resources for this project, as defined last year included the following:

- 180 acres slated for the construction of Units 2 and 3 and associated infrastructure. This
 was surveyed and reported in Patch (2006). Two sites and three isolated finds were
 discovered; all were recommended not eligible. Your office concurred.
- An intake structure and water make-up line to transfer water from the Cape Fear River to Lake Harris. This was surveyed and reported in Espenshade (2007). Three sites and two isolated finds were discovered. All were recommended not eligible. Your office concurred.
- Approximately 4,000 acres to be inundated by the proposed expansion of Lake Harris. In consultation with your office, a survey plan was devised and presented in Espenshade et al. (2007). Your office reviewed and approved the survey plan.

Subsequent to the 2007 submittals, it has become clear that the proposed undertaking may also include ground-disturbing activities associated with new access road(s), new transmission lines, lay-down yards, railroad relocation, relocation of existing roads and bridges threatened by the lake expansion, and other, as yet unspecified actions. Progress Energy wishes to be explicit in stating our intent to assure Section 106 compliance for any and all additions to the undertaking, should this undertaking go forward.

Progress Energy will notify your office as additions to the APE are defined, will seek your concurrence with the revised definition(s) of the APE, and will complete the necessary Phase I archaeological and historic resource surveys, the Phase II evaluations (where indicated), and the Phase III mitigation of adverse effects studies (where indicated). All work will be conducted in compliance with the guidelines of the North Carolina Office of State Archaeology, and in keeping with the Department of Interior standards.

Progress Energy Carolinas, Inc. PO Box 1551 Baleigh, NC 27602 NPD-MISC-2008-017 Page 2

Progress Energy also wishes to reaffirm its commitment to complete the necessary Phase I, Phase II, and Phase III studies on the three originally defined APEs as listed above. We have already completed the Phase I surveys for the first two APEs to your approval. The Phase I survey of the 4,000 acres to be inundated will be scheduled to assure sufficient time to complete Phase II or III studies for those areas that require further investigation. In those areas that require Phase II or Phase III studies, the work will be completed prior to any ground-disturbing activities. Progress Energy will coordinate directly with your office to determine appropriate mitigation or other measures, as needed, in accordance with federal and state regulations and Progress Energy policy.

Progress Energy has established procedures for inadvertent discoveries during construction activities and post-licensing. Our guidelines for employees and contractors are designed to protect historic sites, historic landmarks, cemeteries/human graves, and artifacts or archaeological sites during land-disturbing activities. If a project or work activity inadvertently uncovers an archaeological resource, activities in the site area would be halted, and the appropriate Progress Energy Environmental Support Organization (ESO) would be contacted. For the Harris project, the Environmental Health and Safety Services (EHSS) would be the ESO, and thus would be the point of contact. In the event of an inadvertent find, a cultural resource assessment will be performed, and Progress Energy, through EHSS, will consult with your office, as necessary, to determine the appropriate steps to be taken prior to resuming site activities. We would appreciate your review and concurrence that our procedures, as noted above, are sufficient in the event that previously unknown cultural resources are found during and/or after construction.

As indicated by our earlier correspondences and meetings, Progress Energy has made a strong commitment to assure Section 106 compliance in all aspects of the proposed undertaking. Absent a formal agreement document, this letter and your concurrence will represent documentation of our intent.

As always, thank you for your continued assistance on this project. Progress Energy looks forward to working closely with your office throughout the Section 106 process.

Sincerel

Robert H. Kitchen Manager, Nuclear Plant Licensing

cc: Elizabeth Calvit, CH2M HILL Chris Espenshade, New South Associates Paul Snead



NPD-MISC-2009-001 January 13, 2009

Mr. Peter Sandbeck Administrator, State Historic Preservation Office Deputy State Historic Officer 4617 Mail Service Center Raleigh, NC 27699-4617

RE: Inadvertent Discovery, Harris Nuclear Plant, ER 06-2238

Dear Mr. Sandbeck:

Progress Energy offers this summary of the investigations, conducted by New South Associates, into a late discovery at the Harris Nuclear Plant. This discovery has already been informally reported via e-mail to Ms. Dolores Hall, Deputy State Archaeologist. The purpose of this letter is to assure that there is a formal record of our actions, findings, and recommendations, as well as the concurrence of the Office of State Archaeology (OSA).

On December 15, 2008, a land surveying crew at the Harris facility reported the discovery of an open, historic-era well in an area facing potential impact by the construction of a firing range. This well is in the already-licensed facility, which was surveyed for Section 106 compliance in the 1970s. The well was not recorded in the 1970s survey, but Progress Energy followed our internal protocol for dealing with inadvertent finds. The land surveying crew immediately stopped work in the vicinity of the well, and instructed New South Associates to notify the OSA of the discovery. New South Associates notified Ms. Hall of OSA on December 15, 2008, and scheduled a field view for December 16, 2008.

Chris Espenshade and Danny Gregory of New South Associates visited the well location on the morning of December 16, 2008. The well had been discovered during some land surveying/mapping activities related to the proposed relocation of the firing range. The site has not been impacted by the present construction activities. It is located on a ridge that formerly would have overlooked Tom Jack Creek.

The well is brick-lined. The brick looks to be late 19th/early 20th century in origin. The well is within 10 meters of a former house location. Approximately 30-40% of the house site was severely impacted by soil movement (apparently related to logging 25 to 50 years ago) and is characterized by large push piles containing rock, brick, soil, and roofing tin. The remainder of the house site has avoided major impacts, and piers from the main house and at least one outbuilding remain in place. There are several surface deposits of cans and bottles, including forms indicative of possibly the 1880s through the 1950s. The site is bordered on the north by a deeply entrenched, east-west road bed. It is bordered on the east by a north-south road bed.

Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602 About 50 meters and 70 meters south of the well, respectively, are two rectangular depressions with stone piers in place. Both seem to be the former locations of tobacco barns. Jars and buckets near these barns suggest that they are coeval with the house. This pattern of tobacco barns down the ridge line from the residence was common in the Piedmont (see for example, Lawrence Abbott's work at Falls Lake). GPS readings were taken and photographs were made of the site.

The 1887, 1904, and 1944 maps of Wake County do not show individual farms or residences. The 1878 map shows the farm of W. Boothe in the general vicinity of the site, and the 1914 soil survey shows four farmsteads in the general vicinity. Only the southernmost tobacco barn locus is at risk from the proposed construction activities. A sediment control fence is proposed within 3 meters of the southern barn locus. The remainder of the site will be an undeveloped buffer between the new rifle range and the lake (and is above and outside the APE for the lake expansion).

The former tobacco barn locus has limited research potential. This locus is a particularly pristine example, and its study would not add much to our knowledge. New South Associates recommends that we allow the limited disturbance to the southernmost barn locus, but recommend that Progress Energy preserve in place the remainder of the site. For safety, the well should be filled to the present ground surface with clean fill. For management purposes, New South Associates suggests that the site be considered potentially eligible, but the portion to be impacted would have low research potential.

Should the Progress Energy plans change such that the remainder of the site is to be impacted, we would have New South Associates perform Phase II excavations to determine the site's eligibility. Because the site is not threatened at this juncture, we do not think it necessary to conduct any site-specific archival research. New South Associates will complete a site form for this resource.

The above information and recommendations were provided to Ms. Hall via an e-mail of December 16, 2008. In her reply e-mail of December 17, 2008, Ms. Hall concurred with the following recommendations:

1. Record the farmstead as an archaeological site. This will be reported with the survey of the proposed lake expansion.

2. Fill the well with clean fill. This will be completed once Progress Energy receives formal concurrence from OSA.

3. Proceed with the installation of the silt fence, limiting as feasible the damage to the tobacco barn locus.

4. Avoid effects to the remainder of the site.

5. Evaluate the eligibility of the site if it is threatened in the future.

In summary, Progress Energy and their consultants (CH2M HILL and New South Associates) have followed the Progress Energy protocol for dealing with inadvertent discoveries. The site has been recorded and the potential effects have been considered. Recommendations have been offered for the ongoing treatment of this resource, and OSA has informally concurred with those recommendations. Upon formal concurrence, Progress Energy will implement the recommendations. By today's letter, we respectfully request formal concurrence.

As always, thank you for your continued assistance on this project. Progress Energy looks forward to working closely with your office throughout the Section 106 process. Should you have any questions regarding this request, please contact Chris Espenshade of New South Associates, at 336-379-0433.

Sincerely, A La

Robert Kitchen Manager – Nuclear Plant Licensing

cc: Chris Espenshade, New South Bob Wilson, Progress Energy – HNP Dave Corlett, Progress Energy – HNP Paul Snead, Progress Energy Linda Hickok, Progress Energy Louise England, Progress Energy NPD Document Control – Betsy Cox



North Carolina Department of Cultural Resources

State Historic Preservation Office Peter B. Sandbeck, Administrator

Michael F. Easley, Governor Lisbeth C. Evans, Secretary Jeffrey J. Crow, Deputy Secretary Office of Archives and History Division of Historical Resources David Brook, Director

September 10, 2008

Robert H. Kitchen, Manager Nuclear Plant Licensing Progress Energy Carolinas, Inc. PO Box 1551 Raleigh, NC 27602

Re: Proposed Expansion, Harris Nuclear Plant, Chatham and Wake Counties, ER 06-2238

Dear Mr. Kitchen:

Thank you for your letter of August 18, 2008, concerning the above project.

We have reviewed the procedures established by Progress Energy for inadvertent discoveries of cultural resources during construction activities and post-licensing as outlined in your letter. It is our opinion that these procedures are sufficient to evaluate such discoveries and provide for mitigation of effects, if necessary.

Your letter also outlines the steps previously taken and those yet to be taken by Progress Energy for the Harris Plant expansion project to comply with Section 106 of the National Historic Preservation Act. The outline is an accurate description of completed activities and includes a commitment to implement the agreed upon plan for future cultural resource investigations. We look forward to working with your staff and your consultants on the successful completion of the Section 106 process for this project.

The above comments are made pursuant to Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's Regulations for Compliance with Section 106 codified at 36 CFR Part 800.

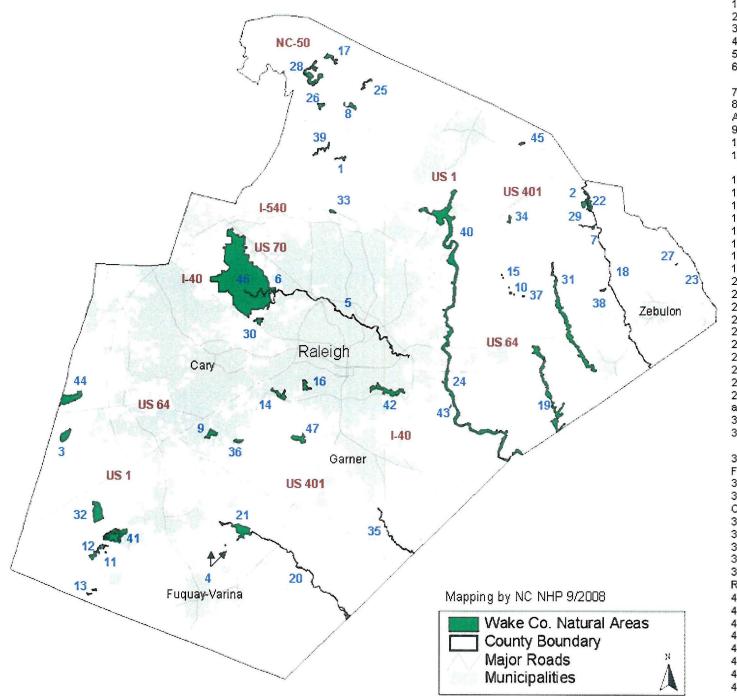
Thank you for your cooperation and consideration. If you have questions concerning the above comment, please contact Rence Gledhill-Earley, environmental review coordinator, at 919/807-6579. In all future communication concerning this project, please cite the above referenced tracking number.

Sincerely,

line Gledill Car Peter Sandbeck

cc: Chris Espenshade, New South Associates

Significant Natural Heritage Areas in Wake County, North Carolina.



1 Adam Mountain 2 Barham Granitic Flatrocks 3 Beaver Creek Floodplain 4 Blue Pond (Sunset Lake) 5 Crabtree Creek Aquatic Habitat 6 Crabtree Creek/Ebeneezer Creek Slopes 7 Fowlers Mill Granitic Flatrocks 8 Great Bend of the Neuse Natural Area 9 Hemlock Bluffs State Natural Area 10 Hodges Mill Creek Granitic Flatrocks 11 Hollemans Crossroads Salamander Pools 12 Hollemans Crossroads Slopes 13 Jim Branch/Buckhorn Creek Forests 14 Lake Johnson Nature Park 15 Lake Mirl Granitic Flatrocks 16 Lake Raleigh Hardwood Forest 17 Little Beaverdam Creek Slopes 18 Little River Aquatic Habitat 19 Marks Creek Floodplain 20 Middle Creek Aquatic Habitat 21 Middle Creek Bluffs and Floodplain 22 Mitchells Mill State Natural Area 23 Moccasin Creek Aquatic Habitat 24 Neuse River (Clayton) Forests 25 New Light Creek Slopes 26 Old Still Creek Natural Area 27 Old US 64 Granitic Flatrock 28 Old Weaver Trail Slopes 29 Pullevtown Road Granitic Flatrocks and Beaver Pond 30 Richland Creek Hardwood Forest 31 Robertsons Pond and Buffalo Creek Floodplain 32 Shearon Harris Longleaf Pine Forest 33 Six Forks Longleaf Pine Forest 34 Southwest Rolesville Granitic Outcrops 35 Swift Creek Aquatic Habitat 36 Swift Creek Bluffs 37 Temple Rock 38 The Rocks 39 Upper Barton Creek Bluffs and Ravine 40 Upper Neuse River Floodplain 41 Utley Creek Slopes 42 Walnut Creek Bottomland Forests 43 Walnut Creek Sumac Site 44 White Oak Creek Floodplain 45 Wild Cat Hollow 46 William B Umstead State Park 47 Yates Millpond