

Western Wake Regional Wastewater Management Facilities

**NC DENR Guidance Letters
(July 27, 2006 and October 2, 2006)**

February 2007



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Fax

MR. KIM FISHER, P.E.

To: MS. LEILA GOODWIN, P.E. From: DANIEL BLAISDELL

Fax: 380-6422 Pages: ~ 10 TO FOLLOW

Phone: Date:

Re: CC:

Urgent For Review Please Comment Please Reply Please Recycle

• Comments:

- 1) HEARING OFFICERS' REPORT JUNE 15, 2006
PUBLIC HEARING
- 2) COVER LETTER.

PLEASE CALL IF YOU HAVE ANY
QUESTIONS.

DAN BLAISDELL
715-6211



July 27, 2006

Mr. Robert K. Fisher, P.E.
Director of Public Works and Utilities
Town of Cary
Post Office Box 8005
Cary, North Carolina 27512-8005

SUBJECT: Western Wake Partners
Draft Environmental Impact Statement
Hearing Officers' Report, DENR Public Hearing
June 15, 2006
Project No. CS370616-03

Dear Mr. Fisher:

A copy of the Hearing Officers' report regarding the June 15, 2006 DENR Public Hearing is enclosed for your use. The Hearing Officers' recommendations are included in Section IV of the report, and the Division concurs with these recommendations. Following is a further discussion of each one:

Siting Process

- To address this recommendation and ensure that appropriate sites have been properly evaluated, a revised Draft Environmental Impact Statement should contain a more detailed discussion and presentation of how the service factors, weighting factors, and cost analyses were used to select the currently proposed WRF site.
- The second recommendation under this heading addresses Environmental Justice (EJ). A revised Draft EIS should provide additional information to address this recommendation. To better evaluate demographics around the WRF proposed site, it is suggested that a radius be extended from the WRF site to the furthest point on the boundary of the New Hill Historic District. A second radius that is twice the length of the first radius should also be extended from the WRF site. The areas encompassed by the resulting circles should then be analyzed for the Environmental Justice demographics.

One
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Mr. Robert K. Fisher, P.E.

Page 2

July 27, 2006

In the event that any other WRF sites are considered, whether due to the revised EJ analysis or not, they too should be analyzed in a similar manner. Additional guidance regarding Environmental Justice, including the EPA Region 4 EJ Review process dated May 2000 and EJ Guidance from the Council on Environmental Quality (CEQ), is enclosed for your use. The information in Appendix A of the CEQ Guidance appears particularly useful.

- The third recommendation under this heading is self-explanatory. However, in the event that additional information cannot be obtained, the Department of Environment and Natural Resources will be glad to facilitate a meeting in our offices.

Environmental Impacts

- A review of the Town of Apex's "Secondary and Cumulative Impacts Master Mitigation Plan" (SCIMMP) indicates in Section 1.2 that the study area for the plan is the town's planning area. Based on Figure 1-1 from the SCIMMP, it appears that the New Hill area of Wake County is included in the town's planning area. Thus, please confirm whether the Apex SCIMMP *currently* covers the WRF site and the New Hill area. If so, this should be clarified in all affected sections of a revised Draft EIS.
- The second recommendation is self-explanatory.

Influent and Effluent Pipeline

The revised DEIS should include a more detailed discussion of proposed operational, maintenance, monitoring and spill-release-response plans. These proposed plans might be incorporated into any non-discharge permits issued for the construction and operation of the proposed transmission facilities.

Public Input

This recommendation is self-explanatory.

Mr. Robert K. Fisher, P.E.

Page 3

July 27, 2006

As stated in the conclusion of the Hearing Officers' Report, before the Division of Water Quality can consider the Draft EIS a complete document to be submitted to the State Clearinghouse, each recommendation must be addressed in a revised Draft Environmental Impact Statement. Please contact Mr. Daniel M. Blaisdell, P.E. at (919) 715-6211 if you, the Western Wake Partners, or their consultants, have any questions regarding this matter.

Sincerely,



Coleen H. Sullins
Deputy Director

Enclosures

Cc: Town of Apex - Mayor Keith Weatherly
Town of Morrisville - Mayor Jan Faulkner
Town of Holly Springs - Mayor Richard G. Sears
Wake County Manager - David Cook
Daniel Blaisdell, P.E.
Camp Dresser and McKee
CH2MHill
FEU/SRF

HEARING OFFICERS' REPORT AND RECOMMENDATIONS July 20, 2006	Western Wake Regional Wastewater Management Facilities Project April 2006 Draft Environmental Impact Statement
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TO: Daniel Blaisdell, Division of Water Quality

FROM: Linda Culpepper^{lc} and Jill Pafford^p, Hearing Officers

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I. INTRODUCTION

**CONSTRUCTION GRANTS &
LOAN SECTION**

The Division of Water Quality (DWQ) held a public hearing on Thursday, June 15, 2006 at the Apex Town Hall to receive comments from the community regarding the April 2006 Draft Environmental Impact Statement (Draft EIS) the Western Wake Partners (the WWP) have submitted as part of the review process for the Western Wake Regional Wastewater Management Facilities Project (Project). The public record remained open through June 30, 2006 allowing additional time for written comments to be submitted.

Approximately one hundred thirty-three citizens attended the hearing. Forty-four people made oral comments and were allowed three minutes each to speak. Thirty-six expressed concerns about various aspects of the Project and/or the Draft EIS. Six voiced support for the Project and/or the Draft EIS. Two made comments about the Project that were neither in opposition or support. One hundred fourteen written comments were received, with four in support of the Project, one hundred nine in opposition to specific aspects of the Draft EIS and/or opposition to the Project, and one neither in opposition or support. Several of those submitting comments also spoke at the public hearing. A few people submitted more than one written comment, including additional comments regarding the Town of Cary's management of a sewage release of about 7.9 million gallons of sewage into Swift Creek which began June 23, 2006.

II. BACKGROUND

On September 13, 2000, the Towns of Cary, Apex, and Morrisville and Wake County (for RTP South) petitioned the Environmental Management Commission (EMC) for an increase in the existing Cary/Apex interbasin transfer (IBT) certificate from 16.0 to 27.0 million gallons per day, incidental to their proposed increased withdrawals from Jordan Lake and discharge of treated wastewater to tributaries of the Neuse River. Public hearings on the proposed transfer increase were held in Raleigh on March 5, 2001 and in Fayetteville on March 6, 2001 pursuant to G.S. 143-215.22I. The original hearing officer's report was prepared in April of 2001 and mailed to members of the EMC on

Hearing Officers' Report
 Western Wake Regional Wastewater Management Facilities Project
 Draft Environmental Impact Statement - July 20, 2006



North Carolina Department of Environment and Natural Resources

May 2, 2001. A revised hearing officer's report was prepared in June of 2001 and mailed to members of the EMC on July 3, 2001.

The EMC considered the petitioner's request at its regular meeting on July 12, 2001. Based on the hearing record and the recommendation of the hearing officers, the Commission, on July 12, 2001, concluded that (1) the benefits of the proposed transfer outweigh the detriments of the proposed transfer, and (2) the detriments of the proposed transfer will be mitigated to a reasonable degree. The Commission granted the petition of the Towns of Cary, Apex, Morrisville, and Wake County (with modification) to increase their transfer of water from the Haw River basin to the Neuse River basin. The permitted transfer amount was to be 24 million gallons per day (mgd) on a maximum day basis. The certificate was effective immediately, but subject to several conditions, including: the holders of this certificate, after 2010, shall return water supplied from the Haw River basin used in the Neuse River Basin to either the Haw or Cape Fear River basins as described below:

- (a) Any water used in the Neuse Basin in excess of 16 million gallons per day adjusted on an average daily basis shall be returned.
- (b) Water used for consumptive purposes in the Neuse Basin will not be subject to this condition.

[Language taken from the Environmental Management Commission Certificate Authorizing the Towns of Cary, Apex, and Morrisville and Wake County to Increase Their Transfer of Water from the Haw River basin to the Neuse River basin under the Provisions of G.S. 143-215.22I – IBT Certificate]

In May 2002, Apex, Cary, Fuquay-Varina, Holly Springs, Morrisville, and Wake County formally agreed to jointly commission the Western Wake County Regional Wastewater Treatment Studies project. The proposed project was indicated as being commissioned by each of the local governments to address one, or more of, the following issues:

- The need for additional capacity to serve growing areas in western Wake County;
- The required return of treated wastewater to the Cape Fear Basin by January 1, 2011 in accordance with the terms of the IBT Certificate issued to Apex, Cary, Morrisville, and Wake County (for RTP South);
- The recommendation by DWQ for Holly Springs to relocate its discharge from Utleigh Creek due to nutrient enrichment concerns;
- An expressed preference by State regulatory agencies for regional wastewater management planning; and
- The amount of time available for an optimistic permitting, design, and construction schedule and the time when most of the participating local governments will operate at capacity at their existing water reclamation facilities being approximately equal. In

Hearing Officers' Report
Western Wake Regional Wastewater Management Facilities Project
Draft Environmental Impact Statement – July 20, 2006



North Carolina Department of Environment and Natural Resources

addition, some local governments will exceed the capacity of their existing wastewater treatment facilities before January 1, 2011.

The Project proposes a single regional water reclamation facility to be constructed to provide wastewater treatment services for the towns of Apex, Cary, Morrisville, and RTP South. Holly Springs will continue to treat wastewater at the Utley Creek Wastewater Treatment Plant (WWTP), and the entire discharge from the Utley Creek WWTP will be removed from Harris Lake and conveyed to a common outfall that will serve the Western Wake Regional Water Reclamation Facility (WRF) and the Utley Creek WWTP. The common outfall will discharge treated effluent to the Cape Fear River downstream of Buckhorn Dam.

The proposed Project is stated to be implemented in two phases:

- The Phase 1 facilities, which must be operational by January 1, 2011, will provide treatment capacity of 18 million gallons per day (mgd) at the WRF, and a discharge capacity of 24 mgd to the Cape Fear River below Buckhorn Dam. The capacity of these facilities will meet the needs of the Project Partners until 2020. The Phase 1 facilities include the following infrastructure:

- 31 mgd peak flow capacity at West Cary Pumping Station (PS)
- 36 inch force main from West Cary PS
- 40 mgd peak flow capacity at Beaver Creek PS
- 42 inch force main from Beaver Creek PS
- 18 mgd maximum month capacity at WRF
- 48 inch effluent force main
- Effluent discharge structure and 60 inch diffuser in Cape Fear River

- The Phase 2 facilities, which are projected to be online by July 1, 2020, will provide treatment capacity of 30 mgd at the WRF and a discharge capacity of 38 mgd to the Cape Fear River below Buckhorn Dam. These flows will be sufficient as shown in the current land use plans but additional growth could occur. If wastewater discharge beyond the 38 mgd are required, the partners will request an NPDES permit modification in accordance with rules and regulations. The capacity of these facilities will meet the needs of the Project Partners until 2030. The Phase 2 facilities include the following infrastructure:

- 44 mgd peak flow capacity at West Cary PS
- Parallel 24 inch force main from West Cary PS
- 58 mgd peak flow capacity at Beaver Creek PS
- Parallel 36 inch force main from Beaver Creek PS
- 30 mgd maximum month capacity at WRF
- Parallel 42 inch effluent force main

Hearing Officers' Report

Western Wake Regional Wastewater Management Facilities Project
Draft Environmental Impact Statement - July 20, 2006



North Carolina Department of Environment and Natural Resources

- DENR only has information on three sites, although 29 sites were initially studied.
- the New Hill community has endured many significant impacts by other large projects.
- the potential project impact on Chatham county residents is unclear.

Specific supportive comments included, in no particular order:

- selection of the WRF location is consistent with recommendations of the 1997 Water/Sewer Plan completed by Wake County and acknowledges there is an effort to address orderly planned growth.
- concerns regarding the high number of well and septage permit denials in the western Wake County area; this project would help alleviate the need for additional permit requests.
- influent into the Cape Fear River Basin (effluent from the WRF) will help meet the future needs of the City of Fayetteville and other communities with intakes lower in the Cape Fear River basin.

Public comment recommendations included:

- DENR should reject the Draft EIS.
- Municipalities should upgrade their systems to treat the wastewater in the areas of generation and then pipe the treated effluent to a central collection point, to be merged into a single effluent discharge point on the Cape Fear River. One choice for a central collection point was Progress Energy property. This proposal would also allow municipalities to locally encourage more reuse of treated effluent, decreasing the amount that would need piping. Cost savings would be incurred due to the difference in pumping treated wastewater versus raw sewage. Any potential release from the pipeline would be treated wastewater rather than raw sewage and less environmental damage to address.
- Move the sewage treatment plant another site, by using the criteria/cost analysis appropriately. One proposed site was Progress Energy land, which was obtained via eminent domain or other means for utility purposes.

IV. RECOMMENDATIONS AND CONCLUSION

The following issues should be addressed before this document should be considered a final Environmental Impact Statement for the Project:

Siting Process

- Many issues identified in the public comments address concerns with the siting process the WWP implemented. Public records provided in the comments support the citizens' concern regarding the limited official governmental

representation and public outreach to residences around the preferred New Hill site.

Section 4.4.2 entitled *Phase II WRF Site Selection Process* describes the process used to narrow the remaining 12 potential sites generated from an original list of 29 sites. The WPP considered site-specific information and data to rank the 12 sites. Service factors were then used to ensure that the selected sites were “financially, technically and environmentally feasible with regard to service area demands and needs.” Consistent use of the criteria and the weighting factors in this part of the evaluation is not clear for all of the 12 sites. In addition, the public comments indicate there are numerous calculation errors in the total weighted scores of the 12 sites, but the Draft EIS does not have enough detail in the discussion of the weighting factors or the ensuing cost analysis to determine accuracy or errors. Therefore, we cannot conclude that the appropriate sites have been properly evaluated.

- Appendix G – Environmental Justice describes the process the WWP used to determine the impacts of the Project on minority and low income populations, citing the use of NC DENR guidance for preparing 201 Facilities Plans. The characteristics of the 2000 US census tract in which the majority of the WRF and raw wastewater pump stations are located were compared to the overall project service area to determine whether minority or low-income populations are impacted disproportionately. This approach does not appropriately evaluate the population directly impacted at the WRF location. Use of the whole census tract data makes sense for defining the service area demographics, given the large scale area involved. It does not, however, adequately work for defining the WRF location demographics, given the smaller area impacted. Demographics derived from a radius around the WRF proposed site should be evaluated to appropriately describe the minority and low income status of those directly impacted by the location of the WRF. This approach, in evaluating both impact areas, more closely follows the NC DENR guidance for implementing environmental justice.
- The WWP need to further evaluate property currently owned by Progress Energy for this Project. Public records submitted indicate the WWP initiated work on additional wastewater planning efforts based on Progress Energy’s potential interest in developing some of their land. The Draft EIS should be clearer on the potential availability of Progress Energy land to host this facility, despite the reasoning that because Holly Springs will not send influent to the WRF, all sites south and east of US 1 were not considered.

Hearing Officers’ Report

Western Wake Regional Wastewater Management Facilities Project
Draft Environmental Impact Statement –July 20, 2006



North Carolina Department of Environment and Natural Resources

Environmental Impacts

- None of the local governments' Secondary and Cumulative Impact Master Mitigation Plans currently cover the area selected as the location for the WRF. Mitigation measures, as well as secondary and cumulative impacts, must be addressed for all areas serviced *and* those areas impacted by the Project footprint. We understand that if the towns of Apex or Holly Springs decide to annex the area of the WRF location, the location will be covered under that town's Master Mitigation Plan. However, annexation is not planned for another ten years, which is beyond the projected construction date of this facility.
- Section 6 of the Draft EIS describes an effort on behalf of the WWP to swap land with Progress Energy to offset gameland disturbances. The mitigation value of this transaction is not clear. If Progress Energy's plans for the new acreage are for property development, this swap will not result in mitigation of lost gamelands. The same rationale applies to the evaluation of other Progress Energy property including site 30. The planned future use of the property should be considered rather than simply the current land use. The Draft EIS should acknowledge or address this issue.

Influent and Effluent Pipeline

The Draft EIS should address potential impacts to property along the pipeline footprint. Operational plans that may be a part of permitting processes for the pipeline and WRF should address identified maintenance, monitoring and spill release response measures.

Public Input

The affected community has been given little opportunity for public input into the site selection process and the development of the Draft EIS to date. It is our strong recommendation that if the WWP propose changes to the Project and/or submits a revised Environmental Impact Statement, an additional public hearing or public meeting be held in a location convenient to the community to allow input into any additional information.

After hearing oral comments, reading written comments and consulting with technical experts in DENR, it is our recommendation that you do not consider the April 2006 Draft EIS as an accurate, complete and adequate document. The previous issues should be addressed before this document should be considered a final Environmental Impact Statement for the Project.



Fax

To: Leila Goodwin, P.E. **From:** Daniel Blaisdell, P.E.
Fax: 919-380-6422 **Pages:** 2 to follow
Phone: **Date:** October 2, 2006
Re: **CC:** Melba Mcgee Fax 715-3060
Susan Massengale Fax 733-2496

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◆ **Comments:**

Leila,

I am faxing to you the Division's letter regarding the Partners' responses to the Hearing Officers' report. Please call if you, the Partners, or your consultants have any questions or would like to discuss further. We'll send the hard copy out in today's mail.

Thanks,



Dan Blaisdell

715-6211



William G. Ross Jr., Secretary
North Carolina Department of Environment and Natural Resources

Alan W. Klimek, P.E. Director
Division of Water Quality

October 2, 2006

Mr. Robert K. Fisher, P.E.
Director of Public Works and Utilities
Town of Cary
Post Office Box 8005
Cary, North Carolina 27512-8005

SUBJECT: Western Wake Partners
Draft Environmental Impact Statement
Partners' Additional Information and Responses
to Hearing Officers' Report, DENR Public Hearing
June 15, 2006
Project No. CS370616-03

Dear Mr. Fisher:

The Division of Water Quality has completed its review of the Partners' additional information and responses to the Hearing Officers' Report regarding the June 15, 2006 DENR Public Hearing and the Division's July 27, 2006 letter. Issues for which additional information was requested included the Siting Process and Environmental Justice.

Attachment A of the Partners' response contains basically the same information that is currently included in the Draft EIS regarding the WRF Site Selection Process. The Division strongly believes that the application of service factors, as well as the lack of an Environmental Justice component in the matrix, prevents us from determining if the site selected is the most cost effective and environmentally sound WRF site for the proposed project. Therefore, to respond to this concern, the Partners need to re-evaluate the site selection process beginning with the twelve Phase II sites (Table 5-6 TM-05, PER) and site 30. An environmental justice technical factor should be added to Table 5-6. Environmental Justice demographics must then be analyzed for *each* of the thirteen sites by using the methodology prescribed in our July 27, 2006 letter (i.e. two concentric circles with radii of 0.5 and 1.0 miles, respectively). Sites resulting in minority populations less than 50% must be given a score of 1. Sites resulting in minority populations greater than or equal to 50% must be given a score of 5. The environmental justice technical factor must be weighted at 1.0. We have previously agreed with the scores assigned in Table A-2 of TM-05 and therefore, the weighting factors must not be changed. Service factors should also not be applied in the analysis, as this represents a double counting of factors previously used. After completing the above analysis, a 20-year present worth analysis, including preliminary cost estimates, should be applied to the five highest-ranking sites. It should be noted that final site selection will not necessarily be based solely on cost. The ability to implement the selected alternative in a timely manner and other non-monetary considerations must also be taken into account.

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Attachment B of the Partners' response contains an additional evaluation of Environmental Justice. Environmental Justice demographics should have been analyzed *within* the areas encompassed by the two concentric circles drawn around the proposed WRF site. Rather, as stated in Section 2.1 of the responses, "... combined data of all census blocks entirely or partially ..." within each of the circles were analyzed. This methodology effectively dilutes the percentages of minority population in the proximity of the proposed WRF site and does not meet the Division's prescribed methodology. For this reason, please re-evaluate the Environmental Justice demographics as discussed above.

The Partners' responses regarding coverage of the Apex SCI Master Mitigation Plan and influent/effluent pipelines are satisfactory. It is also our understanding that the Partners have agreed to involve affected communities in future meetings regarding the proposed project. Please provide further information regarding how the Partners intend to accomplish this involvement. The remaining recommendations from the Hearing Officers' report -- Progress Energy sites and land swap(s) -- will likely be addressed through the revised site selection process.

Please be advised that the Division and Department remain committed to the schedule established by the North Carolina Environmental Management Commission in the July 12, 2001 Interbasin Transfer Certificate. It is believed that a comprehensive and expeditious response to these comments will allow the Partners to comply with that schedule.

After the Division has reviewed the revised analysis and supporting information we will let the Partners know if any additional information is needed or whether the above concerns have been adequately addressed. Please contact Mr. Daniel M. Blaisdell, P.E. at (919) 715-6211 if you have any questions regarding this matter.

Sincerely,



Coleen H. Sullins
Deputy Director

Cc: Town of Apex - Mayor Keith Weatherly
Town of Morrisville - Mayor Jan Faulkner
Town of Holly Springs - Mayor Richard G. Sears
Wake County Manager - David Cook
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