



April 28, 2009

U.S. Army Corps of Engineers, Wilmington District
Regulatory Division
ATTN: File Number 2005-20159
69 Darlington Avenue
Wilmington, NC 28403

Re: Western Wake Regional Wastewater Management Facilities project

To Whom It May Concern:

Following are the written comments of the New Hill Community Association (NHCA),¹ represented legally by Christopher Brook of the Southern Coalition for Social Justice and John Runkle, a private attorney from Chapel Hill, North Carolina. These comments are in reference to the Draft Environmental Impact Statement (DEIS) produced for the US Army Corps of Engineers (USACOE) and the Western Wake Partners (WWP). This DEIS reviews the impacts of the above referenced sewage treatment facility project.

The comments below are divided into four sections. Section One reviews the supposed needs for the sewage treatment facility project. Section Two reviews the procedural history behind the siting of the sewage treatment facility. Section Three reviews the impacts of the sewage treatment facility project. Finally, Section Four reviews the alternatives considered by the DEIS in regards to discharges from the project.

Evidence supporting the facts and contentions contained herein is noted in endnotes that reference documents contained in the appendices or websites where the material is available.

The DEIS needs to look at the purpose and need for the proposed action, provide a full and accurate description of the action and any of its reasonable alternatives, the impacts of the actions and the alternatives including cumulative and secondary impacts as well as impacts relating to environmental justice, and any mitigation measures that can be taken to reduce these impacts.² At present, the DEIS, for the reasons stated below, does not fulfill the above requirements. Accordingly, NHCA requests the DEIS be supplemented and re-submitted for further public comment once it has adequately addressed the concerns specified below.

Section 1: Need for Project

Section 1.1: Population Increase

One of the key needs to be realized by the construction of the proposed sewage treatment facility is the provision of a “foundation for regional wastewater management service capacity to meet existing and forecasted demand in the project service area.”³ The DEIS then goes on to argue

that “the population of the Partners’ wastewater service areas... is projected to increase from approximately 164,800 in 2005 to approximately 220,150 in 2010 and approximately 432,250 in 2030. The influx of people and associated businesses will generate increased wastewater flows resulting in a need for expanded wastewater collection, treatment, and disposal services.”⁴ This increase in population will require a “maximum month wastewater capacity for the towns” of “approximately 62 million gallons per day (mgd) by 2030,”⁵ above and beyond the current sewage treatment capacity of the Partners.⁶

Though this argument appears compelling at first blush, a closer review demonstrates the figures undergirding these projections are not sound. Specifically, the projections are based on imprecise methodology, which does not take into account physical, political, and economic hurdles to continued exponential growth.⁷ Based upon these serious conceptual and methodological flaws,⁸ the DEIS “significantly overstates the likely future population of western Wake County.”⁹ In fact, the DEIS “projection significantly exceeds the current projections of the Planning Departments in Cary, Holly Springs, Morrisville, and Apex.”¹⁰ Until the projection deficiencies outlined below are corrected, the DEIS has failed to provide a solid basis for why the sewage treatment plant is necessary and, as such, is deficient.

The DEIS predicts future growth in western Wake County by “project[ing] construction of residential units, assum[ing] patterns of completion with an average number of occupants, and extrapolating these results into the future.”¹¹ This is problematic first because it deviates from the Cohort Component Method, “the most accurate method of population projections used by demographers.”¹² More importantly, the methodology employed in the DEIS “assumes a constant rate of residential construction and population growth for each year until 2030 based on assumed patterns of construction to total build out in 2030.”¹³ This method of projecting growth assumes the future will be the same as the past without a meaningful inquiry into whether that assumption has a basis in reality. In this case, such a mechanical approach overlooks the unique current and future contours of possible future population growth in western Wake County.

First, there are physical impediments to growth in western Wake County between now and 2030 that are not taken into account by the projections made in the DEIS. Much of the growth in the Partners’ communities in recent years was based on the annexation of existing communities and developments. However, the number of communities and developments subject to annexation is not infinite, a factor pointing to a ceiling on Partners’ growth rates. In addition, “as the 2007 drought showed, the current water supply will not support growth at the rate experienced in the middle part of the decade.”¹⁴ The DEIS does not take these facts into account in its population projection.

Second, the DEIS fails to consider the politically fraught nature of continued, massive growth by the Partners and western Wake County. The lead Partner, Cary, is certainly familiar with opposition to its annexation efforts by many communities and developments.¹⁵ Such concerns are not isolated. In fact, “politically, growth has been central in local political debates and elections in Cary, Raleigh and other areas in Wake County,” making the “assumption that a

constant high rate of growth has political support... questionable.”¹⁶ Yet, again, this reality was not factored into the DEIS estimates because of its flawed methodology.

Finally, “the most serious conceptual flaw” of the demographic model “is the failure to account for the effects of the recession on population growth and construction.”¹⁷ For example, Apex’s projected growth is based on residential construction rates.¹⁸ In 2007 there were 567 residential building permits issued, by 2008 that figure had dropped to 199 residential building permits, and in the first quarter of 2009 there were only 12 building permits issued.¹⁹ “Similarly, residential certificates of occupancy totaled 925 in 2007,” in Apex before, “dropping to 361 in 2008, with only 24 issued in the first quarter of 2009.”²⁰ Along the same lines, “the projected 2009 population for Cary in 2009 is 146,050, an increase over the estimated 2008 population of 134,164.”²¹ However, “the April 1, 2009 population estimate” for Cary “is 135,132, an increase of only 908, well below the expected growth of 11,886.”²² The message from these figures is clear: “the recent rapid population growth in western Wake County has been slowed dramatically by the ongoing recession,” a fact the formulations in the DEIS cannot take into account due to their mechanical nature.²³

No one doubts that western Wake County will continue to grow. However, especially in light of recent developments, the level of growth is an open question that is not addressed by the DEIS. By choosing the simple means of projecting based on past development, the figures in the DEIS fail to consider the physical, political, and economic impediments to such continued growth. The result is a projected population even greater than is expected by the Partner communities.²⁴ Until a realistic assessment of growth in western Wake County is conducted, the level of sewage treatment need cannot be adequately gauged, and the DEIS is incomplete.

Section 1.2: Intrabasin Transfer (IBT) Requirement

The DEIS notes that “in July 2001, NCEMC granted the Towns of Apex, Cary, and Morrisville and Wake County (on behalf of RTP South) an IBT certificate to withdraw water from the Haw River Subbasin (in the Cape Fear River Basin) and discharge (transfer) up to 24 million gallons per day (mgd) (maximum day basis) of the water to the Neuse River Subbasin.”²⁵ It further indicated that “the IBT certificate issued by NCEMC includes a condition requiring local governments to begin returning a portion of this transferred water to Haw or Cape Fear River Basin after 2010.”²⁶ Picking up on the central argument for the proposal put forward by the Cary Mayor Harold Weinbrecht,²⁷ the DEIS further contends that placing a sewage treatment facility in the New Hill community would address this “regulatory mandate” and “requirement.”²⁸ A review of these assertions reveals that not only is this factually inaccurate, but also there are other means of meeting this requirement, which are not addressed in the DEIS.

As is customary with a project of this magnitude, the parties promulgated a timeline for this project. In a timeline dated December 16, 2004 and drafted by the Town of Cary, they established the following time benchmarks: “submit Draft Environmental Impact Statement to DENR – January 2005,” “interlocal agreements for design, construction, ownership, operations, maintenance, and management (already started) – executed no later than March 2005,”

“consultant selection process for design of facilities – July 2005,” “wastewater treatment services agreements – July 2005,” “land acquisition for facilities (already started) – complete by October 2005,” “preparation of construction documents – begin October, 2005,” “project funding program finalized – December 2005,” “complete preparation of construction documents – December 2006,” “complete regulatory review and approval process – December 2006,” “advertise for construction bids – July 2007,” “award construction contracts – December 2007,” and “complete all construction activities – November 2010.”²⁹ Based on this timeline, the Town of Cary predicted “facilities in operation by January 1, 2011.”³⁰

As we are discussing the DEIS for this project in April 2009, something that the above timeline envisioned occurring in 2005, it is apparent that this project is well-behind schedule.³¹ In fact, the project is so far behind schedule it cannot be complete by January 1, 2011, as the IBT regulatory requirement mandates.³² In order to meet that deadline, the proposal would have to complete all necessary tasks, including but not limited to obtaining all relevant regulatory permits and approvals,³³ advertising and awarding construction bids, and the actual construction of all necessary facilities, in 20 months.³⁴ By way of contrast, the above timeline operates on the assumption that such activities would require 72 months.³⁵ Adhering to the above timeline from this point forward, which is by no means guaranteed, would mean the facilities in question would be operational no earlier than April 2015, well after the operative date for the IBT regulatory mandate has come and gone.³⁶ In short, the proposed facilities cannot be used to realize the IBT regulatory requirement.

Though the DEIS states in portions that one of the reasons animating the Western Wake Water Reclamation Facility (WWWRF) is the January 1, 2011 IBT deadline, in other portions it frankly acknowledges the inescapable truth: the WWWRF will not be operational in time to assist the Partners in their efforts to meet the IBT deadline. Specifically, it notes “the first phase of construction” of the WWWRF “is planned for completion in December 2012.”³⁷ While, based on the above-discussed timelines promulgated by the Partners previously, December 2012 is still quite ambitious at this late date, it still constitutes a recognition that the IBT deadline will not be met with the help of WWWRF. Yet another, later still, operational date is found within the DEIS, which admits “the Partners are also evaluating a discharge point to Harris Lake...; however, regulatory approvals necessary to allow this option may take approximately three years if such a discharge is determined to be feasible.”³⁸ Thus, a January 1, 2011 operational date is pushed back to December 2012 and then pushed back again to, presumably, December 2015, nearly five years after the IBT deadline.³⁹

Even assuming arguendo that the proposed facilities could be completed by the date of the IBT regulatory requirement, the current DEIS treatment of this issue would still be deficient. Specifically, the DEIS discussion of the IBT regulatory requirement does not analyze or even reference other means of realizing this requirement.⁴⁰ One simple method of realizing this requirement would be to build a pipeline from existing WWP wastewater treatment facilities to the Haw or Cape Fear River basin, yet such an option is not even discussed by the DEIS⁴¹ and presumably has not been considered by WWP. Another option not considered in the DEIS would be to approach the controlling agency, NCEMC, about revising the IBT regulatory

requirement substantively or in regards to the date deadline. Though not considered by the DEIS, it has at least been obliquely considered by members of the WWP.⁴² However, it is unclear at this point, whether WWP has approached NCEMC about other means to realize this requirement or the revision or elimination of this requirement. Regardless of the status of alternatives, the mere presence of a regulatory deadline is not an excuse for the present hasty, incomplete analysis found in the DEIS.

In short, the argument that the proposed project is necessary to meet the IBT requirements is a straw man. The January 1, 2011 deadline outlined in the IBT by NCEMC cannot be met through this proposal at this late date. Even if this deadline could be met by this proposal, the presence of a deadline is not license to ignore the statutory obligations that the DEIS consider alternative means of realizing the IBT requirements.

Section 1.3: Discharge by Holly Springs to Utley Creek

The DEIS notes that “the Town of Holly Springs has a [WWTP] that discharges into Utley Creek..., a tributary to Harris Lake in the Cape Fear River Basin,” and indicates NCDENR recommended a relocation of this discharge “because of nutrient enrichment in Utley Creek.”⁴³ Tying this to the aforementioned IBT deadline, the DEIS highlights “NCDENR stated in a Finding on No Significant Impact and Environmental Assessment dated February 16, 2007 that ‘Any Authorization to Construct or necessary permits (order, etc.) for expansion of the Utley Creek WWTP will include a condition stating that the treated effluent must be removed from Utley Creek by the date established in the *Certificate Authorizing the Towns of Cary, Apex, and Morrisville and Wake to Increase Their Transfer of Water from the Haw River basin to the Neuse River basin under the Provisions of G.S. 143-215.221.*’”⁴⁴ In short, NCDENR permitted Holly Springs to expand the Utley Creek WWTP in 2007 so long as it ceased its effluent discharge into Utley Creek by January 1, 2011.⁴⁵ Holly Springs indicated it would use the WWRF that is the subject of the DEIS in question to meet its obligation to cease discharging into Utley Creek.⁴⁶ A review of this arrangement demonstrates Holly Springs cannot meet its obligations to NCDENR through the WWRF and, furthermore, alternative means of mitigating its contribution to nutrient enrichment in Utley Creek were not considered.

As outlined above, based on a timeline promulgated by the Town of Cary, the lead Partner in WWP, the WWRF will not be operational until April 2015 at the earliest.⁴⁷ Accordingly, Holly Springs cannot fulfill its obligations to cease discharging into Utley Creek by January 1, 2011. It follows that Holly Springs will either have to find another means to cease discharge into Utley Creek or seek to modify its agreement with NCDENR.

In regards to the former option of seeking alternative means for Holly Spring to cease discharging into Utley Creek, the DEIS fails to consider such alternatives. For example, it has no analysis of whether the Utley Creek WWTP could utilize advanced technologies to address its contribution to nutrient enrichment in Utley Creek. Similarly, the DEIS does not analyze whether land use planning could be employed to reduce the nutrient flow into Utley Creek. Without consideration of such alternatives, the DEIS is deficient.

In regards to the latter option of Holly Springs modifying its agreement with NCDENR, it is unclear whether Holly Springs has approached NCDENR about other means to realize this requirement or the revision or elimination of this requirement. Furthermore, it is unclear whether Holly Springs is still laboring under the misconception that the WWRF will allow it to meet its January 1, 2011 deadline to stop discharging into Utley Creek. Regardless of the status of alternatives or Holly Springs's appreciation of its quandary, the mere presence of its impending deadline is not an excuse for the present hasty, incomplete analysis found in the DEIS.

Section 2: Process Through Which Site 14 Was Selected

Section 2.1: General Chronological Overview

The steps leading to the selection of Site 14 as the location for the sewage treatment facility demonstrate this was a flawed process from the start. Specifically, the selection process failed to abide by the agreement governing the Partners' interaction and relevant statutory law governing municipal decision-making. Furthermore, the process resulted in the selection of Site 14 without an explanation of why other, higher-rated sites were eliminated and without a full consideration of the historical significance of adjacent land. Finally, the condemnation of land for Site 14 prior to a complete analysis of the impacts of this site gave the Partners a strong financial incentive to dig their heels in in support of this selection, even after its deficiencies were well documented. This premature condemnation also precluded a fair evaluation of alternative sites. None of these issues or their impacts on the decision-making process is considered in the DEIS.

The towns of Cary, Apex, Holly Springs, and Morrisville entered into the aforementioned partnership, the WWP, on July 28, 2004 via an Interlocal Agreement for Regional Wastewater Management Facilities Land Acquisition and Preliminary Work.⁴⁸ Shortly thereafter, on August 31, 2004, the environmental engineers tasked by the Partners to compare site alternatives, CDM/Hazen and Sawyer, promulgated Technical Memorandum 8.0, which presented the findings from their "initial site investigations of alternative water facility (WRF) sites for the four wastewater management options."⁴⁹ These investigations yielded 29 potential sites for the sewage treatment facility.⁵⁰ According to Technical Memorandum 8.0, "the area requirements for each WRF site range from 140 to 180 acres;"⁵¹ based on this requirement, the 29 potential sites originally identified were whittled down to 12.⁵² These 12 options were then subjected to a more detailed analysis and ranking based on many factors. For example, in what appears to be an attempt to move the sewage treatment plant as far from Partner communities as possible, CDM/Hazen and Sawyer scored "sites further away from the Town/ETJ limits" with "a lower (better) score than those close to Town/ETJ limits."⁵³ Despite such questionable criteria, Site 14 was only ranked fourth overall.⁵⁴ However, Technical Memorandum 8.0 concluded that "based on these investigations, and discussions with the Technical Management Team (TMT), three possible sites were selected for the new wastewater reclamation facility."⁵⁵ What these "discussions with the Technical Management Team" entailed was never made clear or public.⁵⁶ Site 14 was one of the three sites tabbed for further investigation.⁵⁷ Rocketing from fourth to first without explanation, "Site 14 was selected for use in developing facility cost estimates for raw wastewater conveyance, wastewater treatment, sludge management, and disposal, and

effluent discharge to the Cape Fear River.”⁵⁸ Dubiously, CDM/Hazen and Sawyer noted that its use as the cost predictor was merely “for planning purposes.”⁵⁹

While this site scoping process was unfolding, the Partners were doing everything within their power to limit community involvement in their decision-making process. On November 30, 2004 Cary Public Information Officer, Susan Moran, noted in an email the Partners’ preference for “avoid[ing] publicity for as long as possible while we iron out details of interest to citizens, especially until we get a contract on the land.”⁶⁰ Along the same lines, Carl Dean, Holly Springs Town Manager, emailed a desire to circumvent public hearings on December 16, 2004, arguing “we need to develop a method to handle these utility projects without the public hearing requirement.”⁶¹ This willful desire to obstruct community knowledge and input continued even after Site 14 was selected as evidenced by the May 27, 2005 email from Leila Goodwin, water resources manager for the Town of Cary, instructing in regards to the project, “if you get any questions from the media, please direct them to Susan Moran,” whereas “if you get any questions from citizens, please direct them to the website: www.westernwakepartners.org,”⁶² a website with little beyond boilerplate justifying the selection of Site 14. The DEIS does not discuss these efforts to avoid public comment on the site scoping process, nor does it consider the potential prejudicial impact of excluding public comment from the site scoping process.

As the Partners worked to conceal their machinations, CDM/Hazen and Sawyer were providing them with support for their decision to place the sewage treatment facility at Site 14. Specifically, a review of the facts includes CDM/Hazen and Sawyer made sure that the site selection process would result in Site 14 being the preferred location by choosing comparison sites that they already knew ranked much lower on the site selection criteria and excluding sites that ranked higher. On March 16, 2005, CDM/Hazen and Sawyer published Technical Memorandum 8.1 noting again at the outset that “after discussions with the TMT, three preferred sites were selected for the WRF.” As noted above, Site 14 was one of the sites selected for further investigation. In addition, Site 11/12, initially ranked seventh, was selected for further investigation.⁶³ Finally, Site 8, “though initially eliminated from consideration due to the presence of intermittent streams and its relatively small size”⁶⁴ and not one of the twelve sites ranked in Technical Memorandum 8.0,⁶⁵ “was determined to merit further investigation.”⁶⁶ Tellingly, Site 14, now Site C in Technical Memorandum 8.1,⁶⁷ was being considered opposite a lower ranked alternative and one which had previously not even warranted ranking;⁶⁸ the three sites ranked above Site 14 in Technical Memorandum 8.0 were eliminated without explanation.⁶⁹ Little wonder then that Technical Memorandum 8.1 concluded “Site C is the recommended site for the Western Wake WRF.”⁷⁰ Again, the DEIS fails to reference or investigate the basis for Site 14’s rocketing up the list of alternatives and whether CDM/Hazen and Sawyer were reverse engineering their analysis to make a selection pre-ordained by the Partners.

Following the recommendation of Site 14, the Partners moved rapidly to condemn the necessary land. In so doing, they not only ignored their established condemnation procedure, but also jaundiced the entire process by condemning land for Site 14 before fully considering the environmental impacts of using this land for the sewage treatment plant.

This hasty process began with Apex Mayor Keith Weatherly writing to Cary Mayor Ernie McAlister on June 3, 2005, saying Apex approved of the taking of the property in question for Site 14.⁷¹ Subsequently, it came to light that the Apex Town Council had never voted on the condemnation of this property.⁷² Along the same lines, Morrisville Mayor Gordon Cromwell and Holly Springs Mayor Dick Sears wrote Cary Mayor Ernie McAlister saying their towns approved of the taking of the property in question for Site 14 on June 3, 2005 and June 7, 2005, respectively.⁷³ However, neither the Morrisville nor the Holly Springs town councils approved the condemnation of this land.⁷⁴ The municipal approval of condemnation culminated with the Cary Town Council voting to condemn land for Site 14 on June 23, 2005.⁷⁵ The motion to condemn carried by a four to three vote.⁷⁶

While the details of this municipal approval process might seem insignificant, they are not. *Amendment No. 1 to the Interlocal Agreement for Regional Wastewater Management Facilities Land Acquisition and Preliminary Work*, executed by the Partners on January 26, 2005, specifies that “all four of the Municipal Parties must **unanimously** agree on the sites to be acquired.”⁷⁷ A requirement for unanimous action requires more than a four to three vote of the Cary Town Council or a simple letter from the mayors of Apex, Morrisville, and Holly Springs. In speaking for their towns alone, the mayors of Apex, Morrisville, and Holly Springs not only violated the terms of the aforementioned *Amendment No. 1*, but also acted beyond their authority in violation of North Carolina General Statute 160A-67.⁷⁸ Again, the municipal approval of the condemnation in question is not mentioned by the DEIS.

Based on the questionable recommendation by CDM/Hazen and Sawyer as well as the legally deficient approval of condemnation by the Partner municipalities, but without any meaningful public input, Cary filed a complaint in Wake County Superior Court on behalf of the WWP condemning the land in question for Site 14 on August 11, 2005. This condemnation filing, as well as the subsequently approved condemnation of land for Site 14, occurred before an environmental impact statement was produced in this case. Such a purchase prior to thorough analysis flies directly in the face of 40 C.F.R. § 1502.2(f), which, in discussing environmental impact statements, admonishes that “agencies shall not commit resources prejudicing selection of alternatives before making a final decision.” The purpose behind such a prohibition is plain: municipalities should not be able to escape the consequences of sloppy environmental impact statements by pointing to the money they have already sunk into their preferred alternative. And, yet, in defending the selection of the New Hill site for the sewage treatment facility on April 19, 2009, Cary Mayor Weinbrecht stated, “Once I was elected mayor I asked about the possibility of changing sites and what impact that would have. According to staff members it would cost a couple million.”⁷⁹ While not conceding that “it would cost a couple million” to change sites at this late date,⁸⁰ the argument is plain: we have spent too much money already to re-visit past decisions now. Until the DEIS frankly discusses whether the Partners prejudiced this process by jumping the gun in regards to the condemnation, it is deficient.

Section 2.2: Failure to Provide Public Access to Supporting Documents

The Environmental Justice Analysis of the DEIS notes that:

In preparation for evaluating the alternate sites and to obtain information for the process, a public outreach effort was initiated. Planners for Environmental Quality, Inc. (PEQ), a company specializing in public outreach, conducted public outreach activities in December 2006 in the vicinity of WRF Site 14 as part of the SEPA process and again in December 2007 and January 2008 for property owners of the alternate WRF sites and parcels adjacent to the sites as part of the NEPA process. PEQ representatives met with residents to inform them of the project and gave them a fact sheet about the project with contact information for more information. The fact sheets used during the public outreach efforts and summaries of the public outreach efforts are included in Attachment A. The objective of the public participation program was to determine what, if any, concerns the residents adjacent to the WRF sites may have for the proposed project. The efforts were also used to further identify and characterize minority communities near the candidate WRF sites.⁸¹

While the fact sheets referenced above were included with the DEIS along with summaries of the interviews, no further substantive information in regards to these interviews was included with the DEIS. Specifically, notes from the interviews, information on which parcels were visited, who was interviewed, how the proposed sewage treatment facility was described by the interviewer, what interview methodology was employed, what specific questions were asked to interviewee, who was conducting the interviews, what time of day the parcels were visited, and what specific concerns were voiced by interviewees are not included in the DEIS.⁸² Furthermore, there is no information included in the DEIS on the demographic composition of the interviewees interviewed in the vicinity of Site 14 during December 2006 and January 2007.⁸³ Without the original interview intake documentation as well as information providing the above details, the public cannot assess the thoroughness and accuracy with which the interviews were conducted, nor the thoroughness and accuracy of the summary of community responses. In addition, without information detailing the demographics of individuals interviewed in the vicinity of Site 14, there is no way of determining how representative these interviewees were. In short, the DEIS is deficient and incomplete without this basic documentation to support the environmental justice analysis undertaken.

Section 2.3: Failure to Discuss Environmental Impact of New Power Lines in DEIS

During the run-up to the publication of the DEIS, a Project Delivery Team (PDT) met on numerous occasions to discuss the proposed sewage treatment plans. At the February 28, 2008 PDT meeting, Paul Barth, President of the NHCA, “asked about water and electricity lines from Apex to the WRF site.”⁸⁴ In response, Henry Wicker of the USACE assured Mr. Barth “that any additional water lines or power lines that will be constructed as part of, or as a result of, the West Wake project will be included in the EIS.”⁸⁵

Unfortunately, it appears that the DEIS does not live up to Mr. Wicker's promise at present. A May 22, 2008 version of the Apex Long-Range Capital Improvement Program (CIP) Plan lists "Regional WRF Feeder Circuits" under its section detailing expenditures on "Electric System Improvement."⁸⁶ It then projects \$550,000 in expenses on such "feeder circuits" for the fiscal year 2008-2009, and another \$550,000 in expenses for the fiscal year 2009-2010.⁸⁷

However, despite these plans and Mr. Wicker's promise, there is no discussion of the potential human and environmental impacts from the "Regional WRF Feeder Circuits" in the DEIS. On a broader note, there is no comprehensive discussion of how water and power will be supplied to the sewage treatment facilities, and what the environmental and human impacts will be of providing these resources. Until a thorough analysis of such impacts is included, the DEIS is not complete.

Section 3: Impacts of Project

Section 3.1: Impacts on New Hill Community

Section 3.1.1: Environmental Justice

As the DEIS notes, "the US Environmental Protection Agency (USEPA) defines environmental justice as 'the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.'⁸⁸ Fair treatment is defined as meaning "no group of people, including racial, ethnic, or socioeconomic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or execution of federal, state, local, and tribal programs and policies."⁸⁹ The DEIS goes on to indicate "that a minority population should be identified if that population exceeds 50 percentage of the affected area. However, a minority population may also be present if the minority population percentage of the affected area is 'meaningfully greater' than in the general population or other 'appropriate unit of geographic analysis.'⁹⁰

In its discussion of the environmental justice component of the sewage treatment plant, the DEIS is inconsistent, seeming at times to have been written by two different people. On the one hand, the DEIS throws out a great deal of statistics and facts that appear to indicate there will be no racially disparate impact from the sewage treatment facility. However, subsequently the DEIS notes "Site 14, the proposed project, is the only alternative for which the WRF site is located within a census block that has a significant minority population."⁹¹ A review of these dueling views reveals that they originate from different statistical parameters; however, telescoping in demonstrates the community most directly impacted by the sewage treatment plant is overwhelmingly minority, while the communities served by this sewage treatment plant are overwhelmingly white.

At first, the figures compiled in the DEIS seem compelling in their argument that the areas impacted by the sewage treatment plant are comparable to those areas served by the sewage treatment plant. In regards to income comparisons, the DEIS notes "the percentage of the population for whom poverty status was determined in Wake County with 1999 income below

the poverty level is approximately 8 percent, and the percentage of the population for whom poverty status was determined in Chatham County with 1999 income below the poverty level is 10 percent.”⁹² By way of comparison, “of the eight census block groups potentially affected by the proposed and alternate WRF sites, pump stations, and pipelines... none of the block groups’ percentages are higher than the Wake County or Chatham County percentages.”⁹³ In regards to racial comparisons, the DEIS notes that “of the 88 census blocks potentially affected by the proposed WRF site alternates, pump stations, and pipeline... none of the blocks’ percentages are higher than the Wake County or Chatham County percentages, which are approximately 30 percent and approximately 28 percent, respectively. Of these 28 census blocks, 11 contain minority populations of around 50 percent or greater.”⁹⁴

Setting aside the fact that the last two sentences stand in direct contradiction to one another, the major problem with this seemingly re-assuring presentation of facts is that the focus is on communities far broader than those relevant: the communities being served and the communities being impacted. First, the focus on Wake County and Chatham County as the source for baseline data in regards to income⁹⁵ and racial make-up⁹⁶ is misplaced. No one in Chatham County will be served by this sewage treatment plant. Relatively few people in Wake County will be served by this sewage treatment plant. Instead of focusing on Wake County broadly, the DEIS should focus on the towns directly benefiting from this sewage treatment plant: Cary, Apex, Morrisville, and Holly Springs. Perhaps these figures were not included because they show these communities are far wealthier and contain a much higher percentage of white residents than Chatham or Wake Counties as a whole; specifically, the Partners, cumulatively, have 3% of their populations below the poverty line and only have 18% minority populations.⁹⁷

Along the same lines, the data being used to compare the impacted communities in the New Hill area to Chatham and Wake Counties on socioeconomic and racial grounds are drawn far too broadly to provide a meaningful comparison. For example, communities in Chatham County more than 10 miles from Site 14 are used as a point of comparison between the impacted and served communities.⁹⁸ While it is lovely to know the economic and racial make-up of the census group containing the community of Farrington in Chatham County,⁹⁹ it is not particularly instructive in attempting to discern the make-up of the communities closest to and most directly impacted by Site 14 because it is more than 10 miles from Site 14.

In fairness, in addition to this misleading information, the DEIS also contains information providing much greater detail about these communities closest to and most directly impacted by Site 14. Zooming in to census blocks within a half mile of Site 14 reveals there are 632 people in this area, 227 of whom are minorities.¹⁰⁰ This 36% minority percentage impacted by this sewage treatment plant is twice the percentage of minorities who will be served by the sewage treatment facility in the Partner communities,¹⁰¹ and constitutes a minority population in and of itself according to USEPA guidelines.¹⁰² Focusing in on the census blocks bordering and including Site 14 reveals there are 196 people in this area, 162 of whom minorities.¹⁰³ This 83% minority percentage impacted most directly by this sewage treatment plant is more than four times the percentage of minorities who will be served by the sewage treatment facility in the Partner communities.¹⁰⁴ Detailing two of these census blocks in greater detail, the DEIS states:

Environmental Justice Group 1 is located in Census Block 1053 along New Hill-Holleman Road between Old Highway 1 and US Highway 1. According to the 2000 census, the total population of Census Block 1053 was 106 with 92 minorities or 87 percent. Environmental Justice Group 2 is located along James Rest Home Road south of US Highway 1. According to the 2000 census, the total population of Census Block 1013 was 71 with 67 minorities or 94 percent. The Group 2 cluster also contains a large nursing home, which contributes to the EJ population. Many of the families in these two clusters have owned properties in the area for generations.¹⁰⁵

Unfortunately, the DEIS contains no information on poverty rates of either the census blocks within a half mile of Site 14, or those census blocks bordering Site 14, making it impossible to compare these communities financial wherewithal to that of the Partners' communities.

In response to these damning statistics, it is likely the Partners will respond with something along the lines of "yes, that is regrettable, but our needs are so great and the community impacted is relatively small." While such utilitarian logic is certainly more attractive in downtown Cary than in Environmental Justice Group 1, it is also easily answered by reviewing the available sewage treatment plant placement alternatives and comparing the human impacts of Site 14. In so doing, it becomes apparent that not only would these alternatives allow the Partners to realize their sewage treatment needs, but also do so in a fashion that would impact fewer people. Before engaging in such comparisons it is also imperative to note that, despite the fact that each alternative is in the general vicinity of New Hill, the NHCA, and the vast majority of the New Hill community, only opposes Site 14, the only alternative in the middle of New Hill.

A review of the alternative sites first shows they have far fewer overall human impacts than Site 14. In comparison to the 632 people living in a census block within a half mile of Site 14,¹⁰⁶ there are only 379 people living within that distance of Site 19,¹⁰⁷ 72 people living within that distance of Site 21/23,¹⁰⁸ and 248 people living within that distance of Site 30.¹⁰⁹ Telescoping in further, in comparison to the 196 people living in a census block adjacent to Site 14,¹¹⁰ there are only 38 people living in a census block adjacent to Site 19,¹¹¹ 38 people living in a census block adjacent to Site 21/23,¹¹² and 33 people living in a census block adjacent to Site 30.¹¹³ In short, Site 14 has almost twice as many people living within a half mile radius of it as the most populated alternative and almost nine times as many people living within a half mile radius of it as the least populated alternative. Furthermore, Site 14 has between five and six times as many people living adjacent to it as the other alternatives.

Reviewing the alternative sites also shows the disproportionate impact Site 14 would have on minority communities compared to the alternatives. In comparison to the 227 members of the minority population living in a census block within a half mile of Site 14,¹¹⁴ there are only 110 members of the minority population living within that distance of Site 19,¹¹⁵ 23 minorities living

within that distance of Site 21/23,¹¹⁶ and 113 members of the minority population living within that distance of Site 30.¹¹⁷ After taking into account the fact that many of the minorities adjacent to Site 14 are also within a half mile of one of the other alternatives, the distinction between these sites becomes even more. Specifically, only 10 minorities are within a half mile of Site 19, but not Site 14,¹¹⁸ only 12 minorities are within a half mile of Site 21/23, but not Site 14,¹¹⁹ and no minorities are within a half mile of Site 30, but not Site 14.¹²⁰ For example, 67 of the 110 minorities within a half mile of Site 19 are part of Environmental Justice Group 2 that is adjacent to Site 14;¹²¹ accordingly, Site 19 would still have a lesser impact than Site 14 for these individuals. Similarly, 92 of the 113 minorities within a half mile of Site 30 are part of Environmental Justice Group 1 that is adjacent to Site 14;¹²² along the same lines, Site 30 would still have a lesser impact than Site 14 for these individuals.

Given these vastly different human populations around Site 14 as opposed to the other alternatives, it is not a surprise that the proposed sewage treatment facilities would have greater human impacts on those surrounding the proposed site. While many of these impacts are discussed in greater detail in other portions of Section 3.1, certain impacts merit brief treatment here as well.

First, only Site 14 would have permanent visual/aesthetic impacts on the surrounding minority populations. The DEIS frankly acknowledges that “permanent visual/aesthetic impacts” for the environmental justice groups adjacent to Site 14 “include being able to see or partially see the constructed facilities at the WRF site.”¹²³ Members of these environmental justice communities “are unlikely to see the Site 19 facilities from their residences because of the distance but could see them in local travel.”¹²⁴ As “the two identified minority communities do not fall within the boundary or 0.5 mile of Site 21/23”¹²⁵ and “no minority communities are located within the boundary or 0.5 mile of South 30,”¹²⁶ members of two communities are also unlikely to see the sewage treatment facilities from their residences.¹²⁷

Second, only Site 14 would have temporary or permanent noise impacts on the surrounding minority populations. The DEIS admits “temporary noise impacts to the minority communities” adjacent to Site 14 “include increased truck traffic and commonly used mechanical equipment used to grade the site and construct the facilities. Permanent noise impacts to the minority communities near the WRF site include possibly being able to hear equipment in operation at the WRF.”¹²⁸ In regards to the alternative sites, “members of the minority community are unlikely to hear temporary or permanent noise impacts from the facilities from their residences because of the distance.”¹²⁹ While Section 3.1.3 details the shortcomings of the noise analysis contained in the DEIS in much greater detail, this brief comparison puts in stark relief the disparate impact of Site 14 when compared to all other alternatives.

Third, Site 14 would have the greatest light-spill impact on the surrounding minority populations. The DEIS notes “permanent light impacts to the minority communities near” Site 14 “include possible light-spill on adjacent properties due to street and task lighting installed at the WRF,” though these communities will surely take solace from the fact that “only lights required for safety and security will remain on **all night**.”¹³⁰ Though the DEIS predicts similar

light-spill impacts on Environmental Justice Group 2 due to Site 19,¹³¹ common sense indicates any such impact will be less given only “a very small part” of this community “falls within .5 mile of Site 19,”¹³² while this community is adjacent to Site 14.¹³³ In regards to the other two alternatives the DEIS is more straightforward, predicting “members of the minority communities are unlikely to see temporary or permanent light impacts from the facilities from their residences because of the distance.”¹³⁴

Fourth, Site 14 would have the greatest impact from odor on the surrounding minority populations. The DEIS claims:

Odor impacts are expected to be minimal during the construction phase of the project and typical of construction odors, not the types typically associated with a WRF. However, it is possible that some odors may occasionally be detected beyond the property line of the facility after it is placed in operation. This is mainly because local meteorological conditions can vary greatly and produce atmospheric conditions that may increase the perceptibility of nearby activities. In general, winds in Wake County originate from the west-southwest, so if any odors did leave the site, they would like be detectable along the east-northeast boundary of the site.¹³⁵

Failing to close the circle on their analysis, the DEIS fails to note that both environmental justice groups are located to the east of Site 14,¹³⁶ putting them in the path of the prevailing Wake County winds and odors from the sewage treatment facility.¹³⁷ Conversely, “members of the minority community are unlikely to detect odors from the [alternative] facilities from their residences because of the distance” between them and Sites 19, 21/23, and 30.¹³⁸ Though the DEIS fails to make this explicit, it is also worth noting that the environmental justice communities are not downwind of either Site 19¹³⁹ or Site 21/23.¹⁴⁰

In regards to its current treatment of environmental justice concerns, the DEIS is deficient on numerous grounds. At the outset, the DEIS needs to include more meaningful data by which to compare the areas to be served by and the areas to be impacted by this sewage treatment facility. Such an effort would include a tighter focus on the Partners’ communities when providing baseline statistics, a tighter focus on the area surrounding Site 14 when making a comparison to the Partners’ communities, and data on the incomes of those most directly impacted by Site 14, especially both environmental justice groups. Once such data is included, the DEIS should then be more frank and explicit about the essential reality: that the sewage treatment facility’s benefits will accrue overwhelmingly to whites,¹⁴¹ while its burdens will be born overwhelmingly by minorities.¹⁴²

On a more elemental level, the DEIS needs to explain why families in the environmental justice groups who “have owned properties in the area for generations” and elderly nursing home residents in EJ group 2¹⁴³ why they should see, smell, and hear a sewage treatment facility

constructed in their backyard for members of communities to which they do not belong. When it has done this, the DEIS should conclude with an explanation as to why these long-term and elderly inhabitants¹⁴⁴ should bear these burdens from Site 14, proposed to be built upon the only majority minority census blocks in the general vicinity, when other alternatives exist that would impact far fewer people.¹⁴⁵

To manage these massive environmental justice concerns, the DEIS notes “the Partners propose to offer residents of Census Tract 534.03, Block 1053 water and sewer connections free of charge or with deferred charges.”¹⁴⁶ Making the purpose animating this modest effort clear, the DEIS begins the discussion of this proposal by acknowledging again that “Site 14, the proposed project, is the only alternative for which the WRF is located within a census block that has a significant minority population.”¹⁴⁷ Furthermore, the Town of Apex *Site 14 Water and Sewer Extension Policy* is even more explicit in explaining “that the provision of water and sewer service is being offered as a mitigation measure for locating a water reclamation facility on Site 14.”¹⁴⁸ A thorough review of this modest mitigation plan demonstrates that even it has multiple deficiencies that must be addressed.

First, the *Town of Apex, North Carolina Water and Sewer Extension Policy for Site 14 Affected Community* that serves as the basis for this mitigation plan is labeled as “DRAFT-Not intended for action, for discussion purposes only.”¹⁴⁹ Before such a proposal can be included as a part of the mitigation plan for Site 14, it needs to be moved beyond the “for discussion purposes only” stage and prepared for action.¹⁵⁰ Until such a final proposal is included, the DEIS is incomplete.

Second, the proposal states that “the property owners of record as of March 27, 2007, have until January 1, 2010, to submit a request to the Town of Apex for water and sewer service in accordance with the terms and conditions described herein.”¹⁵¹ These conditions are problematic for a number of reasons. Most importantly, as discussed above, the January 1, 2010 deadline is arbitrary and far too early in light of the fact that the sewage treatment facility will not be operational by January 2011 as originally envisioned, and will likely be delayed through April 2015.¹⁵² These delays indicate that a final siting decision will not be made by January 1, 2010, making it unreasonable for residents to sign up for a mitigation plan that might or might not come to pass. For the same reason, requiring property owners to have owned land by March 27, 2007 is also unreasonable. Based on the aforementioned projections, this arbitrary date would result in parties being precluded from the mitigation plan despite the fact that had owned property in the impacted area for more than seven years before the sewage treatment plant came on line. This is indefensible and the qualification date should be modified to reflect the delays in the siting process. Finally, this proposal puts the onus on property owners to fish a mitigation plan out of a thousand plus page DEIS and then “submit a request to the Town of Apex for water and sewer service.”¹⁵³ Such a requirement calls into question how efficacious a mitigation plan can be when it imposes such a burden on those it ostensibly seeks to serve. To rectify this inequitable treatment, the DEIS should thoroughly identify steps that will be taken to make the public aware of this mitigation plan and facilitate their participation. Until all of these steps are taken, the DEIS is inadequate.

Third, the DEIS needs to clarify that its proposed mitigation plan is not the “something for nothing” it advertises. In fact, “the deferment of acreage fees and capacity fees will remain in effect until conditions change for a subject property.”¹⁵⁴ A “changed conditions for a property will be defined as (a) a change in use of the property, (b) the property is developed or redeveloped such that a site plan or subdivision plan is required by the Town.”¹⁵⁵ In addition to these weighty strings, property owners opting for the mitigation plan must “agree to allow Apex to acquire easements as may be required for the proper construction, installation, operation and maintenance of the water and sewer facilities.”¹⁵⁶

Even more problematic is the obligation that property owners participating in the mitigation plan must allow Apex to annex their property in the near future. The DEIS denies this is the case stating, “under this proposed policy, the Town Council of Apex will not require annexation as a condition for providing water and sewer service.”¹⁵⁷ However, a closer look at the proposal establishes this is inaccurate. Specifically, the proposal lays out that “as a condition of accepting water and sewer service under the proposed policy, the property owners in the affected community agree as follows:

- 1) At some unspecified date in the future, but no earlier than January 1, 2020, the Town may initiate annexation proceedings for all, or a portion of, the properties located in the affected community.
- 2) Upon initiating annexation procedures, the property owners that have received water and sewer service in accordance with the terms and conditions of this policy will not protest or contest the annexation proceedings brought forth by the Town of Apex.”¹⁵⁸

The policy is clear: annexation is not an immediate requirement for those participating in the mitigation plant, but, after January 1, 2020, all bets are off. In order to constitute a full consideration of all impacts of the proposed sewage treatment plant, the DEIS must frankly address the trade-offs involved in the participating in the mitigation plan and also squarely address whether Apex plans to annex all or part of the New Hill community in the future.

Section 3.1.2.: New Hill Historic District

In June 2005, Cary Town Council Representative Jennifer Robinson acknowledged that “historical or social issues were not considered when the site selection process was undertaken” by the Partners.¹⁵⁹ A review of the DEIS reveals that such historical issues still have not been seriously considered at this late date.

On this issue, the DEIS begins promisingly enough by admitting “WRF Site 14 lies adjacent to the New Hill Historic District, which is included on the National Register of Historic Places (NRHP); all other project alternatives will not impact historic properties.”¹⁶⁰ However, instead of using as a jumping off point for a discussion of the WWRWMF impact specific to the directly adjacent New Hill Historic District, the DEIS relies on boilerplate generalities about visual, odor, noise, and light spill impact on the Historic District. Left unanswered are the following questions:

- Would the WWRWF be visible from the New Hill Historic District?
- Could you smell the WWRWF in the New Hill Historic District?
- What would be highest, lowest, and mean noise decibel levels heard in the New Hill Historic District? How often would the highest noise decibel levels be heard in the New Hill Historic District? Would varying portions of the New Hill Historic District be exposed to differing noise decibel levels?
- Would there be light-spill into the New Hill Historic District?
- Would traffic through the New Hill Historic District increase?¹⁶¹

More broadly, the DEIS does not wrestle with how seeing, smelling, and hearing a sewage treatment facility would impact a historic district. Are a sewage treatment facility and an adjacent historic district compatible? Have other sewage treatment facility been built next door to historic district? If so, what has the impact been on such historic districts? Without seriously considering these questions and then providing responses supported by documentation, the DEIS has failed to improve upon the process lambasted by Councilwoman Robinson in 2005.

Section 3.1.3: Noise

In regards to the noise impact from the sewage treatment facility on the New Hill community, the DEIS notes “the Partners are incorporating noise reduction and control at the WRF site and pump stations.”¹⁶² The DEIS goes on to predict that “the noise heard at the closest existing residence should be 49 to 55 dBA.”¹⁶³ The DEIS goes on to reassure that construction impacts would “normally” be “limited to daylight hours when loud noises are more tolerable.”¹⁶⁴

Pushing further into the DEIS, however, reveals not all of the news is so re-assuring. The DEIS acknowledges that “during power outages, peak-shaving operation, and when emergency equipment is tested, there will be short-term impacts on the communities surrounding the WRF site and pumping station site.”¹⁶⁵ Furthermore, when ostensibly detailing noise impacts and noise reduction efforts, the DEIS states that construction techniques “would be defined” only after “final design and permitting are completed.”¹⁶⁶ Immediately after admitting its construction designs and noise reduction efforts have yet to “be defined,”¹⁶⁷ the DEIS re-asserts “the Project Partners would execute the construction [of the sewage treatment facility] in accordance with final permits and in full compliance with federal and state safety requirements and Apex noise standards which require average noise level at less than 55 dBA at the property boundary.”¹⁶⁸

This description of noise impacts and mitigation techniques raises more questions than it answers. In regards to the language summarized above, the DEIS must specify the “noise reduction and control” techniques it claims will be used at the sewage treatment plant.¹⁶⁹ It also must address how frequently “power outages, peak-shaving operation” and the testing of emergency equipment would occur.¹⁷⁰ It then needs to address the impacts during these louder periods of operation and, with regards to the peak shaving operations and emergency equipment testing, what time of the day these events were likely to transpire. In addition, the DEIS needs to clarify the apparent commitment to achieving “average noise at less than 55 dBA at the property boundary.”¹⁷¹ Are there occasions when the noise at the property line will be more than 55dBA?

If so, how frequently? Is the 55dBA average a requirement for daylight hours, or over the course of the entire day? Along the same lines, the DEIS statement that construction would “normally” be “limited to daylight hours when loud noises are more tolerable”¹⁷² needs clarification. Are there occasions when construction would occur at night? If so, how frequently? Until these questions are addressed, the DEIS is inadequate and incomplete.

Similarly problematic is Table 4-11, which summarizes the “Peak Construction Noise Levels Near a Typical Construction Site.”¹⁷³ First, this table speaks of the “distance from the construction site,”¹⁷⁴ but fails to clarify whether this is the distance from the center of the construction site or the edge of the construction site, which is imperative to fully understand the noise impact. Even more important is the fact that this table merely represents “peak construction noise levels near a **typical** construction site.”¹⁷⁵ The failure to determine whether these typical assumptions would hold at Site 14 and produce actual noise gradient maps showing the noise impacts on the human beings living next to this proposed sewage treatment facility is unacceptably lazy. The failure to engage in vigorous analysis calls into question the DEIS’s contention that “the noise heard at the closest existing residence should be 49 to 55 dBA.”¹⁷⁶ Furthermore, are these 49 to 55sBAs the amount of noise heard at the fence line of residences or inside these residences? And how will the Partners measure the noise during construction to ensure they do not breach the 55dBA noise level? What will the Partners do if this noise level is breached? Also, there is no graph whatsoever showing the day-to-day noise impacts of the sewage treatment facility once it is constructed. What would these impacts look like for the New Hill community? All of the questions must be considered and responded to before the public can fully gauge the noise impact of this sewage treatment facility.

In addition, the DEIS discussion of noise focuses exclusively on dB impacts and potential means of mitigating such impacts. However, in detailing their experiences managing the South Cary Water Reclamation Facility (SCWRF), the Town of Cary notes “after discussing noise with our neighbors, we discovered that it is not necessarily the dB of the sound but its frequency and character as well. Some sounds [from the plant] are dull while some are sharp and whiny, and, as such, more annoying than others.”¹⁷⁷ Despite this acknowledgement from the lead Partner, the DEIS does not discuss the frequency and character of sounds to be produced by the WWRWMF or any plans to mitigate such sounds. Until it thorough does so, the DEIS is incomplete.

Finally, a phrase included in the DEIS noise “analysis” reveals more fundamental problems with this siting process and review. As discussed above, the DEIS states “the noise heard at the closest existing residence should be 49 to 55dBA,” before, in the same sentence, noting that this level of noise is “**comparable to a typical suburban noise level** of 55dBA.”¹⁷⁸ The amount by which this misses the point is breathtaking. As anyone who has travelled to New Hill knows, it is not a typical suburban area, nor does it have a typical suburban noise level. This is comparing apples to oranges. More helpful would be a graph documenting the current New Hill noise level and then showing how this would change during the construction and operation of the sewage treatment facility, yet no such information is found in the DEIS. Furthermore, the use of this phrase highlights the insensitivity and unfairness involved in suburban communities trying to use

another community to manage their sewage treatment problems and then, in justifying this decision, saying, in effect, “but your community won’t be any louder than ours when we are done with it.” Until such information documenting the actual impact the sewage treatment would have on New Hill is included in the DEIS, the analysis is incomplete.

Section 3.1.4: Property Values

Acknowledging that “one public concern of building a new WRF is a change in property values around the WRF site,” the DEIS evaluates “whether a new WRF would result in decreased property values.”¹⁷⁹ After reviewing “Wake County Revenue Department Data,” the DEIS concluded “impacts on property values are negligible and may be beneficial.”¹⁸⁰ However, a review of the method in which this conclusion was reached reveals how truly flimsy it is.

The focal point of the DEIS “analysis” on this point was the four WRFs and WWTPS currently managed by the Partner: North Cary WRF, South Cary WRF, Utley Creek WWTP, and Middle Creek WWTP.¹⁸¹ Actually, the “analysis” focuses on the first three facilities as “no residential properties are located within 0.5 miles” of the Middle Creek WWTP.¹⁸² There is no explanation for why there has been no development in the vicinity of this latter facility, which could be indicative of developers shying away from constructing homes around a sewage treatment facility; instead, it is just eliminated from the discussion. This is the first shortcoming with this portion of the DEIS; the lack of development around the Middle WWTP should be explained to the public to the extent possible and appropriate lessons should be drawn from this lack of development.

Returning to the three facilities discussed by the DEIS, this document, in part, compares the value of houses built before the construction of each respective facility and the value of houses built after the construction of each respective facility.¹⁸³ The DEIS states that “due to limitations with the Wake County data, a comparison of individual homes prior to/after WRF and WWTP construction was not possible.”¹⁸⁴ In other words, the DEIS does not include the only direct means of weighing the property value impact of the construction of a sewage treatment plant on homes in Wake County, rendering the data that is included in this section more or less unhelpful in the predicative capacity for which it is employed.

Ignoring this reality and delving into the data that is included in this section reveals that even it does not support the conclusion conjured by the DEIS. Focusing on the three sewage treatment facilities analyzed, the DEIS asserts that “residential development increased significantly in the years since the facilities were built” and that “the rates of development around these facilities have exceeded the rates of development in southwest Wake County.”¹⁸⁵ It further notes that homes and land within a half mile of these WRFs “have an average assessed value above that of the average assessed value in southwest Wake County.”¹⁸⁶ A review of these statistics reveals there is much less to them than meets the eye.

In regards to the assertion that “the rates of development around these facilities have exceeded the rates of development in southwest Wake County,”¹⁸⁷ there are a number of problems with

drawing any causal conclusions from this assertion. First, this rapid increase in development since the construction of the WRFs largely relates to the small number of properties developed prior to the building of these facilities. Prior to the 1984 construction of the North Cary WRF, there were 11 properties within a half mile radius of the facility; there are now 156 properties within a half mile radius of the facility.¹⁸⁸ Prior to the 1988 construction of the South Cary WRF, there were 34 properties within a half mile radius of the facility; there are now 538 properties within a half mile radius of the facility.¹⁸⁹ Prior to the 1990 construction of the Utley Creek WWTP, there were 10 properties developed within a half mile of this WTF when it was built in 1990; there are now 322 properties within a half mile of this WWTP.¹⁹⁰ In short, while the percentage increase in the number of properties over the last 20 plus years is impressive in a vacuum, the numerical total is much less impressive and reveals the percentage increase has to do more with the fact that these areas were almost entirely unpopulated in the mid-1980s. This percentage increase becomes even less impressive when you consider that both of these areas are still much less developed than the average half mile-radius in Cary,¹⁹¹ a much more telling statistic that does not find its way into the DEIS.

Second, the assertion that “the rates of development around these facilities have exceeded the rates of development in southwest Wake County,” is completely unsurprising. Cary is the fifth fastest growing city in the United States, while the rest of southwest Wake County is comparatively rural and slow growing.¹⁹² That any part of Cary would grow faster than, for example, New Hill, tells us nothing about whether a sewage treatment facility stymies or propels development. Again, a much more telling statistic on this front would be to compare growth around these facilities to growth in the rest of Cary, another more telling detail that does not find its way into the DEIS.

Finally, the “southwest Wake County” to which the area around these facilities is being compared is never defined. Accordingly, it is impossible for the public to determine the point of reference used by the DEIS is, yet another fact making the rates of development comparison worthless.

In regards to the assertion that homes and land within a half mile of the North and South Cary WRFs “have an average assessed value above that of the average assessed value in southwest Wake County,”¹⁹³ there are again a number of problems with drawing any causal conclusions from this assertion. First, a review of these facts shows that the value of the land per acre is less in the half mile radius of these sewage treatment facilities than in the rest of southwest Wake County.¹⁹⁴ This hardly supports the conclusion that these facilities may increase property values.

Second, though the value of properties within a half mile radius of the sewage treatment facilities is greater than the value of properties in southwestern Wake County, this likely relates to the fact that the properties in question are “larger and higher priced homes than are typical in southwest Wake County.”¹⁹⁵ At most, this proves developers build bigger houses in Cary than the rest of southwest Wake County and that such houses in Cary are more expensive than if they were positioned elsewhere in southwest Wake County. This hardly supports the conclusion that these facilities may increase property values. Again, the inclusion of information comparing these

properties to similar properties in Cary would provide a telling point of reference but such details are not found in the DEIS.

Third, the data upon which these property values are based were current as of April 30, 2008.¹⁹⁶ As anyone living in the Triangle knows, housing prices rose dramatically in the decades proceeding 2008 and have fallen since then with the bursting of the housing bubble.¹⁹⁷ Furthermore, Cary's rapid growth certainly fueled an increase in home values and prices across the board prior to the end of 2008.¹⁹⁸ The Town of Cary acknowledges this reality, noting "sales [of properties around the South Cary WRF] have been very slow" since 2008.¹⁹⁹ Cary further admits that "the few houses sold in 2008 have sold for slightly below [the previous average sales price for the area surrounding the South Cary WRF]."²⁰⁰ Accordingly, not only are these figures used in the DEIS dated, but also they indicate the increase in property values related to broader factors in the housing market both inside and outside of Cary, as opposed to the glories of living near a sewage treatment facility.

In regards to the property values around the Utley Creek WWTP, the DEIS acknowledges the homes and land in this vicinity "have an average assessed value below that of the average assessed value in southwest Wake County."²⁰¹ In explaining this inconvenient fact, the DEIS states "subdivisions built around this facility are composed of smaller and lower priced homes than are typical in southwest Wake County."²⁰² This underlines the point made above that the big houses near the other two facilities are probably expensive because they are big, not because they are near a sewage treatment facility. To determine the impact of a sewage treatment facility, the DEIS would need to include data comparing house prices at the three facilities in question to comparable houses elsewhere in Cary, but not in the vicinity of sewage treatment facilities. Such information is not included in the DEIS and thus there is no meaningful assessment of the impact of such facilities on property values.

In short, the data presented in the DEIS in no way supports its conclusion that "impacts on property values are negligible and may be beneficial."²⁰³ It is difficult to draw such broad conclusions based on only three examples in any context,²⁰⁴ but, even considering this, the effort made by the DEIS is weak. To strengthen its analysis the DEIS should include a discussion of the lack of development around the Middle Creek WWTP, analyzing whether it relates to the presence of this sewage treatment facility, a comparison of development rates at the four sites in question to the rest of Cary, a comparison of current property values at the four sites in question to the rest of Cary, and a definition of the term "southwest Wake County." Until such revisions are made, the public cannot ascertain the potential impact the sewage treatment facility will have on their property values, making the DEIS incomplete.

On many broader notes, the property value analysis included in the DEIS completely misses the point. First, as noted above, the DEIS acknowledges that "due to limitations with the Wake County data, a comparison of individual homes prior to/after WRF and WWTP construction was not possible."²⁰⁵ In other words, the DEIS does not include the only data which can definitively state the impact the four sewage treatment plants have on individual home values. Second, the DEIS includes no analysis or study of Site 14's potential property value impact on land and

homes in New Hill. Certainly such a study would be far more instructive than the compilation of data on residential development and home/land values around sewage treatment facilities in Cary. Such a preliminary study conducted by an appraisal retained by the NHCA concluded, “placing and building such a [sewage treatment] facility in this community... will cause a negative impact as to property values in the community as a whole.”²⁰⁶ Until the DEIS fulfills its obligation to include such an analysis of property values in New Hill, this opinion constitutes the only relevant analysis on point. Finally, the DEIS also overlooks a key component differentiating this proposed sewage treatment facility from the three it analyzes in some detail: there is something fundamentally different about moving into an area where a sewage treatment facility already exists and having a sewage treatment facility, which you will not benefit from, placed in your pre-existing community.

Section 3.2: Impacts Outside of New Hill Community

Section 3.2.1: Progress Energy Withdrawal of Water from Cape Fear River in Drought

Progress Energy has proposed to build two new nuclear reactors at its Shearon Harris Nuclear Site.²⁰⁷ Included in this Progress Energy proposal is a table listing “Summary of Water Use at Proposed Facilities.”²⁰⁸ This table notes that the “total or maximum lake makeup flow withdrawal from Cape Fear River” could be up to “60,000 gpm [gallons per minute].”²⁰⁹ The Progress Energy proposal then notes that “the proposed withdrawal of water from the Cape Fear River to fill and maintain water levels in Harris Reservoir sufficient to provide cooling for the existing and two additional towers can have two main effects on Cape Fear River water. First, water supply in the Cape Fear River Basin can be in high demand, especially during drought periods. Secondly, a reduction in flow during drought conditions could affect the assimilative wastewater capacity of the river.”²¹⁰ Such a reduction in flow would occur upstream of the Partners’ proposed Cape Fear River discharge point for the WWRWF.²¹¹

Despite this proposed withdrawal, its potential impacts, and the proposed discharge point for the proposed sewage treatment plant, the DEIS includes no mention or analysis of these factors. Furthermore, in its speculative limits for the discharge, NCDWQ also does not analyze the impact of such a withdrawal, its impact on the Cape Fear in normal conditions, or its impacts on the Cape Fear in drought conditions. The DEIS cannot rely on NCDWQ’s speculative limits without determining if it consider all relevant environmental impacts. Given its current failure to analyze this proposed Progress Energy withdrawal from the Cape Fear, the DEIS is incomplete.

Section 3.2.2: Impacts on Raven Rock State Park

The DEIS notes that “the Partners evaluated several alternative locations to discharge wastewater” from the sewage treatment facility.²¹² Though “the Partners are also evaluating a discharge to Harris Lake,”²¹³ “NCDWQ representatives indicated that their preferred discharge location is to the Cape Fear River below Buckhorn Dam.”²¹⁴ This discharge point is located in extreme southeastern Lee County, near the border with Harnett County,²¹⁵ and would receive a 30 million gallons daily (MGD) discharge from the WWRWF.²¹⁶ Focusing on this NCDWQ

preferred alternative, the DEIS notes the “NCDQW issued speculative limits for this discharge location on December 15, 2004 and December 5, 2005.”²¹⁷

Notably absent from this discussion of the proposed discharge to the Cape Fear River below Buckhorn Dam is Raven Rock State Park, which is a mere six and a half miles downstream from this discharge point. Located in Harnett County on the Cape Fear, nine miles west of Lillington and 20 miles east of Sanford, Raven Rock State Park contains 3950 acres of land including “the 152 ft. high outcropping of crystalline rock that gives the park its name.”²¹⁸ Raven Rock is “perhaps the most readily recognized... of all the landmarks on the Cape Fear River.”²¹⁹ The park is also “on the ‘fall line’, where the river literally falls and produces the best rapids in the eastern piedmont.”²²⁰ In addition, the Raven Rock includes an area known as the “Fish Traps,” deep holes that retain water during the frequent low flow periods of the river.²²¹

Despite its proximity to the discharge point, the fact that it has been “a popular tourist destination for nearly 150 years,” and its status as a state park since 1970,²²² neither the DEIS or the speculative limits issued by NCDWQ consider the discharge’s impact on public enjoyment of the park or biotic life protected in the state park system. In fact, the words “Raven Rock State Park” never even appear in the DEIS or the NCDWQ speculative limit letters.²²³ The DEIS is deficient and incomplete until the impact on Raven Rock State Park from the potential discharge below the Buckhorn Dam on the Cape Fear River of 30 MGD from the sewage treatment facility is fully analyzed therein.

Section 3.3: Impacts Both Inside and Outside of New Hill: Sludge Management

In regards to sludge management, the DEIS indicates “two options are being evaluated for biosolids.”²²⁴ According to the DEIS, “the first option consists of sludge thickening through polymer feed and gravity belt thickeners. The thickened waste activated sludge would be stored in aerobic holding tanks for 20-25 days and then dewatered through a centrifuge and trucked offsite.”²²⁵ In comparison, “the second option consists of sludge thickening, aerobic holding tanks, dewatering via centrifuges, biosolids dryer and furnace, off-site biosolids loading (liquid and solid), filtrate and centrate pumping, and scum digestion. The dewatering facilities would be housed in a solids handling building.”²²⁶ Amplifying upon the use of aerobic holding tanks, the DEIS subsequently states “biosolids would be stored in aerated holding tanks for a short time until they are removed from the site as liquid, dewatered cake, dried pellets to be used as fertilizer in agricultural operations, or as ash when used as fuel for the biosolids dryer furnace (if a dryer is included in the project).”²²⁷ “Estimates of truck loads of biosolids hauled off site range from .5 to 29 loads per week, depending on the year and selected option,” according to the DEIS.²²⁸

The above description of sludge management raises more questions than it answers at present, and, as such, is deficient. First and foremost, the above description frankly acknowledges that “two options are being evaluated for biosolids.”²²⁹ In fact, other portions of the DEIS indicate “the Partners are considering three options for handling biosolids at the Western Wake WRF site: offsite composting, drying, and drying in conjunction with energy recovery.”²³⁰ Until a decision

is made as to how many options are being considered and to which option will be employed, the public cannot adequately comment on the processes to be employed and the DEIS is incomplete. Along the same lines, the DEIS outlines four options for biosolid disposal: liquefying it, making it into a dewatered cake or dried pellet, or burning it as fuel in a biosolids dryer furnace.²³¹ Again, until a decision is made as to which option will be employed, the public does not know the process to be employed or its impacts and the DEIS is incomplete. Furthermore, if the option to burn sludge is employed it is unclear whether this burning would occur on or off-site, another factor that must be considered for the full impact of WWRF to be determined. Finally, the DEIS does not discuss what would happen to the water removed from the sludge, leaving the public uninformed as to the management of means of disposal for this byproduct.

Beyond simple clarification of the sludge management process, the DEIS completely fails to discuss the chemicals found in this sludge and how the impact of these chemicals will be monitored, managed, and their impacts' mitigated. Though euphemistically titled "biosolids" by the DEIS, sewage sludge is not natural material.²³² Instead, "sewage sludge contains tens of thousands of other toxic substances and chemical compounds," including PCBs, pesticides, dioxin, heavy metals, industrial solvents, nitrogen, phosphorous, organic matter, fire retardants, antimicrobial chemicals, prescription and non-prescription pharmaceuticals, radioactive substances from research facilities and hospital waste, pathogens not destroyed by convention treatment, hormones, detergent metabolites, steroids, fragrances, plasticizers, and disinfectants.²³³ Focusing on our area, a 2002 USGS study of organic wastewater compounds in Triangle surface waters detected pharmaceutical compounds, fire retardants, plasticizers, antibiotics, pesticides, fragrances, flavorants, disinfectant, as well as "miscellaneous compounds."²³⁴

The reason it is so important for the DEIS to detail a plan to not only dispose of this sludge but also monitor, manage, and mitigate the impact of its components is that many of chemicals referenced above have been linked to adverse health effects. Scholarly articles on this topic note that "little is known about the potential effects of organic wastewater contaminants in wastewater effluent or biosolids disposed of in surface water or on soil" and that potential consequences include "adverse physiological effects, increased rates of cancer, and reproductive impairment in humans and other animals as well as antibiotic resistance among pathogenic bacteria."²³⁵ Closer to home, "the groundwater near a sewage sludge application site in Rutherford County was contaminated with nitrates at levels greater than the EPS limit of 10 ppm suggesting that a nearby sludge field spread was responsible for contaminating groundwater and residential private wells."²³⁶ On another occasion, "nitrates traveled 1,400 ft. from where they were applied in sludge on land in Robeson County resulting in contamination to residential wells that exceeded the 10 ppm limit."²³⁷ Nitrates are potentially dangerous to newborns; in particular, nitrites in the digestive tracts of newborns can lead to the disease methemoglobinemia.²³⁸ In addition, livestock have aborted fetuses due to drinking water containing high levels of nitrates.²³⁹

In short, the current treatment of sewage sludge by the DEIS is woefully inadequate. First, the DEIS must outline details regarding how, where, and through what means the sludge and associated water will be disposed of so that all impacted communities can effectively analyze,

question, and participate in this public comment process. Second, the DEIS must outline the environmental consequences of its liquefying, burning, caking, or pelletizing the sludge in question as well as disposing of the associated water. Finally, the DEIS must lay out how the environmental consequences of the sludge and associated water and/or air impacts will be monitored, managed, and mitigated if necessary. Without such details, the public cannot neither fully participate in this process, nor have great confidence that all contingencies associated with WWRWF are being planned for. Until such details are provided, the DEIS is incomplete.

Section 4: Alternatives: Lack of Analysis of Discharge into Harris Lake

As discussed above in Section 3.2.2, there are two options being considered as discharge points for the 30 MGD being discharged from the sewage treatment plant in question: Harris Lake and the Cape Fear River below the Buckhorn Dam.²⁴⁰ While the analysis of its impact is by no means complete,²⁴¹ NCDWQ has at least issued speculative permits for the proposed discharge site below the Buckhorn Dam on the Cape Fear River.²⁴²

However, “the Partners are also evaluating a discharge to Harris Lake;”²⁴³ by way of contrast to the proposed Cape Fear discharge site, this review of the Harris discharge site has barely gotten off the ground. The DEIS acknowledges as much, stating “the development of a CE QUAL W2 model of Harris Lake is proceeding and is anticipated to be completed during the first quarter of 2009.” Only after this model comes out (it has not as of today’s date) can the NCDWQ analyze it, propose revisions, and ultimately “issue speculative limits for a Harris Lake discharge if water quality can be adequately protected.”²⁴⁴ This NCDWQ review is a time consuming process; in the case of the aforementioned speculative permits for the proposed discharge below the Buckhorn Dam on the Cape Fear River the process took nearly 32 months.²⁴⁵ Assuming a similar timeframe for this discharge and an imminent release of the model on the proposed Harris Lake discharge, neither of which is guaranteed,²⁴⁶ the NCDWQ would not grant these speculative permits until December 2011. The DEIS is even less optimistic, admitting “the Partners are also evaluating a discharge point to Harris Lake...; however, regulatory approvals necessary to allow this option may take **approximately three years** if such a discharge is determined to be feasible.”²⁴⁷

And, even then, the process would not be completed. The DEIS documents a nascent disagreement between at least one of the Partners and NCDWQ. The DEIS notes Holly Springs’s preference for the Harris Lake discharge,²⁴⁸ while also noting “NCDWQ representatives indicated that their preferred discharge location is to the Cape Fear River below Buckhorn Dam.”²⁴⁹ This difference of opinion would have to be resolved and the proposed discharge alternative concretely identified before the DEIS would be complete and ready to supplement, a process that will take years to complete.

Conclusion

As noted above, the DEIS needs to look at the purpose and need for the proposed action, provide a full and accurate description of the action and any of its reasonable alternatives, the impacts of

the actions and the alternatives including cumulative and secondary impacts as well as impacts relating to environmental justice, and any mitigation measures that can be taken to reduce these impacts. As detailed above, the DEIS does not meet any of these requirements. Accordingly, NHCA requests the DEIS be supplemented and re-submitted for further public comment once it has addressed the below concerns adequately.

On a broader note, many of the issues raised above pertain to fundamental problems with Site 14. Specifically, it cannot at this late date address the IBT requirement and the site has a unique, disproportionate impact on the New Hill Historic District and the minority communities adjacent to Site 14. For these reasons, the USACE should consider the wisdom of permitting WWP to move forward with any steps that consider development of a sewage treatment facility in the middle of the New Hill community.

Thank you for your attention to this matter and please do not hesitate to be in touch if you have any questions.

Regards,

Christopher A. Brook
Counsel for NHCA
Staff Attorney
Southern Coalition for Social Justice

¹ The NHCA is a 501(c)(4) organization with 265 members, the vast majority of which live in the New Hill community. The organization includes members who live in both Environmental Justice Group 1 and Environmental Justice Group 2, which are both discussed in greater detail in Section 3.1.1 below.

² DEIS, Executive Summary.1; DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 1.

³ *Id.* at section 1.3, lines 100-02.

⁴ *Id.* at lines 109-13.

⁵ *Id.* at lines 113-15.

⁶ *Id.* at lines 118-19.

⁷ Dr. Allan Parnell, *Assessment of the Population Projections Used in the Draft Environmental Impact Statement for the Proposed Western Wake County Water Treatment Facilities* (hereinafter *Assessment of the Population Projections*), April 23, 2009, available as Appendix A attached to this document.

⁸ *Id.* at pp. 1.

⁹ *Id.*

¹⁰ *Id.* In fact, the municipalities' planning departments predict a total Partners population of 382,706 in 2030, or approximately 13% less than the 432,250 projection in the DEIS.

¹¹ *Id.*

¹² *Id.* at pp. 2.

¹³ *Id.*

¹⁴ *Id.* at pp. 3.

¹⁵ *Homeowners Fight Cary Annexation*, March 9, 2009, available at <http://www.wral.com/news/local/story/4527621>.

¹⁶ *Assessment of the Population Projections*, pp. 3.

¹⁷ *Id.*

¹⁸ *Id.* at pp. 5.

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.*

²⁴ *Id.* at pp. 1.

²⁵ DEIS, section 1.2.1, lines 57-61.

²⁶ *Id.* at lines 61-63.

²⁷ *Mayor Harold Weinbrecht Blog*, April 19, 2009 post, available at <http://haroldweinbrecht.com/?p=130>. In this post, Mayor Weinbrecht argues that the building of this sewage treatment plant cannot be delayed as any “delay is significant because of our interbasin transfer agreement.” *Id.* Expounding upon this opinion, Mayor Weinbrecht argues that in order “to support our growing population and our current population via the interbasin transfer, Cary needs the Western Wake Wastewater facility to be built without delay.” *Id.* However, in the same breath in which he argues the facility is necessary to realize the interbasin transfer, Mayor Weinbrecht acknowledges, “the Western Wake Wastewater facility will be delayed beyond the expiration of the interbasin transfer.” *Id.* He does not acknowledge or address this contradiction, or discuss other means of realizing the Partner’s obligation. *Id.* As the below discussion will indicate, unfortunately, the DEIS also fails to address this contradiction or alternatives.

²⁸ DEIS at section 1.2, lines 47-50.

²⁹ Western Wake Regional Wastewater Management Facilities (WWRWMF), Powerpoint, pp. 5, available as Appendix B attached to this document. This document’s prediction that construction contracts would be awarded by December 2007 is actually less ambitious than other projections made by WWP. In other documents, WWP indicated that “following approval of the site, construction will begin around August 2007.” DEIS, Appendix H, Attachment A, *Summaries of Public Outreach Efforts*, December 2006, pp. 4.

³⁰ WWRWMF, Powerpoint, pp. 5.

³¹ *Id.*

³² *Id.*; DEIS, section 1.2.1, lines 61-63.

³³ The 14 permits and approvals “required prior to the implementation of the project” are listed in the DEIS, section 5.3.

³⁴ WWRWMF, Powerpoint, pp. 5; DEIS, section 1.2.1, lines 61-63.

³⁵ WWRWMF, Powerpoint, pp. 5.

³⁶ *Id.*; DEIS, section 1.2.1, lines 61-63.

³⁷ DEIS, section 2.1, lines 11-12.

³⁸ *Id.* at lines 12-15. For further discussion on why this January 1, 2011 deadline cannot be met review Section 4.1 of this letter, which discusses the need to fully analyze the proposed discharge into Harris Lake, which is not done by the DEIS at present.

³⁹ *Id.*; *Id.* at section 1.2.1, lines 61-63.

⁴⁰ *Id.* at section 1.2.1.

⁴¹ *Id.*

⁴² Town of Cary Town Council Work Session Minutes, subject WWRWMF, December 16, 2004, available at <http://www.townofcary.org/agenda/councilmin04/ws121604.htm> (wherein Councilmember Dorrel “asked what happens if the Town does not meet the 2011 transfer certificate.” In response, Water Resources Manager Leila Goodwin “responded that state agencies would make that determination.)

⁴³ DEIS, section 1.2.2, lines 66-70.

⁴⁴ *Id.* at lines 76-83.

⁴⁵ *Id.*

⁴⁶ *Id.* at Appendix B-2, pp. 1.

⁴⁷ *Id.* at DEIS, section 1.2.1, lines 61-63; WWRWMF, Powerpoint pp. 5.

⁴⁸ *Amendment No. 1 to Interlocal Agreement for Regional Wastewater Management Facilities Land Acquisition and Preliminary Work (hereinafter Amendment No. 1)*, pp. 1, available as Appendix C attached to this document.

⁴⁹ *Technical Memorandum 8.0*, CDM/Hazen and Sawyer, pp. 1, available as Appendix D attached to this document.

⁵⁰ *Id.* at pp. 4-7.

⁵¹ *Id.* at pp. 2.

⁵² *Id.* at pp. 4, 8.

⁵³ *Id.* at pp. 12.

⁵⁴ *Id.* at pp. 9-18.

⁵⁵ *Id.* at pp. 19.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.* In a subsequent analysis performed by CDM/Hazen and Sawyer, Site 14 was ranked fifth out of the twelve sites receiving further study. *Technical Memorandum No. 05*, CDM/Hazen and Sawyer, Table 5-6, available as Appendix E attached to this document. Again, the basis for the site dropping from fourth to fifth is not explained, nor is the basis for eliminating from discussion the four sites which scored higher than Site 14.

⁵⁹ *Id.*

⁶⁰ Susan Moran 11/30/04 email, available as Appendix F attached to this document.

⁶¹ Carl Dean 12/16/04 email, available as Appendix G attached to this document.

⁶² Leila Goodwin 5/27/2005 email, pp. 2, available as Appendix H attached to this document.

⁶³ *Technical Memorandum 8.0*, *Technical Memorandum 8.1*, CDM/Hazen and Sawyer, available as Appendix I attached to this document.

⁶⁴ *Technical Memorandum 8.1*, pp. 1.

⁶⁵ *Technical Memorandum 8.0*, pp. 8.

⁶⁶ *Technical Memorandum 8.1*, pp. 1.

⁶⁷ *Id.* at Figure 8.1-1.

⁶⁸ *Technical Memorandum 8.0*, pp. 18; *Technical Memorandum 8.1*.

⁶⁹ *Technical Memorandum 8.1*. It also merits noting that each of these three highest ranked properties were owed by Progress Energy. *Complaint in NHCA, et al v. WWP, et al.*, no. 19. Available as Appendix J attached to this document.

⁷⁰ *Technical Memorandum 8.1* at pp. 12.

⁷¹ *Mayor Weatherly Letter*, June 3, 2005, Available as Appendix K attached to this document.

⁷² *Town of Apex Board of Commissioners Meeting Minutes*, December 20, 2005, pp. 8, available as Appendix L attached to this document.

⁷³ *Mayor Cromwell Letter*, June 3, 2005, available as Appendix M attached to this document; *Mayor Dick Sears Letter*, June 7, 2005, available as Appendix N attached to this document.

⁷⁴ *Complaint in NHCA, et al v. WWP, et al.*, no. 29.

⁷⁵ *Cary Town Council Meeting Minutes*, June 23, 2005, available at <http://www.townofcary.org/agenda/councilmin05/cm062305.htm>. Further illuminating the Cary Town Council decision-making process, in June 2005, Cary Town Council Representative Jennifer Robinson frankly acknowledged, that “historical or social issues were not considered when the site selection process was undertaken” by the Partners. *Jennifer Robison email*, June 26, 2005, available as Appendix O attached to this document. This failure is considered in greatly detail in Section 3.1.2.

⁷⁶ *Id.* Though each of the municipalities had “approved” the condemnation in question, a closer look at the facts indicates it was not a decision all elected representatives within the communities were on board with. Acknowledging this reality, Cary Public Works Director Kim Fisher noted in a September 13, 2005 email that Apex Comm. Jensen had attempted “to revisit the site selection process for WWR WWMF.” *Kim Fisher email*, September 13, 2005, available as Appendix P attached to this document. However, Fisher indicated this effort was stymied as “it seems that Mayor McAlister has been working behind the scenes with Mike Jones and Keith Weatherly to keep from reopening the site selection process. To accomplish this, Mayor McAlister has agreed to have Mike Jones and Keith Weatherly, as well as the Mayor and one other elected official from each of the other project partners meet

with Tommy Esqueda and Bob DiFiore (my suggestion) to ask them questions about sites that Mike Jones is interested in and any other sites of concern.” *Id.*

⁷⁷ *Amendment No. 1*, Section 2.03 (emphasis added).

⁷⁸ Pursuant to North Carolina General Statute 160A-67, the mayor of a city or town has only those powers and duties conferred upon him by law, together with such other powers and duties as may be conferred upon him by the council pursuant to law. The Code of Ordinances of the Town of Apex provides that the mayor shall sign “all contracts, franchises and other written instruments *authorized by the board.*” Ord. No. 05-0215-07, § 2.23 (2005). Along the same lines, the Town of Morrisville and the Town of Holly Springs have not authorized their mayors by ordinance or otherwise to act on behalf of the Town to approve site selection without consideration and action of the Board.

⁷⁹ *Mayor Harold Weinbrecht Blog*, April 19, 2009 post, available at <http://haroldweinbrecht.com/?p=130>.

⁸⁰ This contention of additional cost put forward by Mayor Weinbrecht is entirely unsupported by substantive research. Based on the information possessed by NHCA, the major expense made in preparation for building a sewage treatment plant was the purchase of the land in question. However, this is certainly not a sunk cost as the land that was condemned has great value and could either be held onto as an investment or used for other purposes. The only even somewhat substantive comparison of the costs of potential sites found that it would cost an additional \$27,308,100 to site the sewage treatment plant at Site 20, as opposed to Site 14. *Technical Memorandum No. 05*, Appendix B. However, price comparisons between Site 14 and the other potential sites or preferred sites was never made in any detailed fashion.

⁸¹ DEIS, Appendix H, *Western Wake EJ Summary*, pp. 4.

⁸² *Id.* at pp. 8-11, 17.

⁸³ *Id.* at pp. 8-11.

⁸⁴ *Western Wake PDT Meeting Summary*, February 28, 2008, pp. 6, available at [http://www.saw.usace.army.mil/wetlands/projects/WW-WTP/meetings/Western%20Wake%20PDT%20Meeting%20Summary%20\(2-28-2008\).pdf](http://www.saw.usace.army.mil/wetlands/projects/WW-WTP/meetings/Western%20Wake%20PDT%20Meeting%20Summary%20(2-28-2008).pdf).

⁸⁵ *Id.*

⁸⁶ *Apex Long-Range Capital Improvement Program (CIP) Plan*, available as Appendix Q attached to this document.

⁸⁷ *Id.*

⁸⁸ DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 1.

⁸⁹ *Id.*

⁹⁰ *Id.* at pp. 12-13.

⁹¹ *Id.* at pp. 80-81.

⁹² *Id.* at pp. 10-11.

⁹³ *Id.* at pp. 11.

⁹⁴ *Id.* at pp. 18-19.

⁹⁵ *Id.* at Table 1, pp. 11.

⁹⁶ *Id.* at Table 3, pp. 15.

⁹⁷ U.S. Census Bureau, 2000 Census Data for Cary, Apex, Holly Springs, and Morrisville.

⁹⁸ DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, Table 1, pp. 11, Table 3, pp. 13.

⁹⁹ *Id.*

¹⁰⁰ *Id.* at Appendix H, Attachment B, Table 8.

¹⁰¹ U.S. Census Bureau, 2000 Census Data for Cary, Apex, Holly Springs, and Morrisville.

¹⁰² DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 12-13. This broader population group surrounding Site 14 constitutes a minority population as its minority population percentage is “‘meaningfully greater’ than in the general population or other ‘appropriate unit of geographic analysis.’” *Id.*

¹⁰³ *Id.* at Appendix H, Attachment B, Table 8, Figure 8.

¹⁰⁴ U.S. Census Bureau, 2000 Census Data for Cary, Apex, Holly Springs, and Morrisville.

¹⁰⁵ DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 19-20.

- ¹⁰⁶ *Id.* at Appendix H, Attachment B, Table 8.
- ¹⁰⁷ *Id.* at Table 12.
- ¹⁰⁸ *Id.* at Table 16.
- ¹⁰⁹ *Id.* at Table 20.
- ¹¹⁰ *Id.* at Table 8, Figure 8.
- ¹¹¹ *Id.* at Table 12, Figure 12.
- ¹¹² *Id.* at Table 16, Figure 16.
- ¹¹³ *Id.* at Table 20, Figure 20.
- ¹¹⁴ *Id.* at Table 8.
- ¹¹⁵ *Id.* at Table 12.
- ¹¹⁶ *Id.* at Table 16.
- ¹¹⁷ *Id.* at Table 20.
- ¹¹⁸ *Id.* at Table 8, 12.
- ¹¹⁹ *Id.* at Table 8, 16.
- ¹²⁰ *Id.* at Table 8, 20.
- ¹²¹ *Id.* at Table 8, Figure 8; *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 19-20.
- ¹²² *Id.* at Table 8, Figure 8; *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 19.
- ¹²³ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 26.
- ¹²⁴ *Id.* at pp. 27.
- ¹²⁵ *Id.* at pp. 28.
- ¹²⁶ *Id.* at pp. 29.
- ¹²⁷ *Id.* at pp. 28-29.
- ¹²⁸ *Id.* at pp. 31.
- ¹²⁹ *Id.* at pp. 32, 33, 34.
- ¹³⁰ *Id.* at pp. 36 (emphasis added).
- ¹³¹ *Id.* at pp. 37-38.
- ¹³² *Id.* at pp. 37.
- ¹³³ *Id.* at Appendix H, Attachment B, Figure 8.
- ¹³⁴ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 38-39, 39.
- ¹³⁵ *Id.* at pp. 42-43.
- ¹³⁶ *Id.* at Appendix H, Attachment B, Figure 8.
- ¹³⁷ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 43.
- ¹³⁸ *Id.* at pp. 45, 47, 48.
- ¹³⁹ *Id.* at Appendix H, Attachment B, Figure 12.
- ¹⁴⁰ *Id.* at Figure 16.
- ¹⁴¹ U.S. Census Bureau, 2000 Census Data for Cary, Apex, Holly Springs, and Morrisville.
- ¹⁴² DEIS, Appendix H, Attachment B, Table 8, Figure 8.
- ¹⁴³ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 19-20.
- ¹⁴⁴ *Id.*
- ¹⁴⁵ See citations 49-83 above and the accompanying text.
- ¹⁴⁶ DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 81.
- ¹⁴⁷ *Id.* at pp. 80-81.
- ¹⁴⁸ *Id.* at Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 1.
- ¹⁴⁹ *Id.* at pp. 1-4.

¹⁵⁰ *Id.*

¹⁵¹ *Id.* at pp. 1-2.

¹⁵² See Section 1.2 of this report for further details on the delayed nature of this projection and for support of these projected operational dates.

¹⁵³ DEIS, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 1-2.

¹⁵⁴ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 82.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 3.

¹⁵⁷ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 81.

¹⁵⁸ *Id.* at Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 2.

¹⁵⁹ *Jennifer Robison email*, June 26, 2005.

¹⁶⁰ DEIS, section 2.2.2, lines 808-808.

¹⁶¹ The DEIS states that “all traffic into, and out of, the WRF site will be directed away from the New Hill Historic District and the site will be accessed by a roadway to the Shearon Harris Road.” *Id.* at section 14.3.2.1., lines 1562-63. It is unclear whether this means of accessing the WRF site would require new road construction or how mandating this sole source of entry to the WRF site would be enforced. Furthermore, just a few lines later the DEIS states “during plant operation, there would be approximately 25-35 employees on the site each day that would like travel along Old US 1,” the road passing straight through the New Hill Historic District. *Id.* at lines 1566-68. So is traffic being exclusively directed to Shearon Harris Road, or Old US 1? Such contradictions must be resolved, and the above requested details provided before the DEIS can be considered complete.

¹⁶² *Id.* at section 2.8.2, lines 792-93.

¹⁶³ *Id.* at section 4.9.2.1, lines 1285-86.

¹⁶⁴ *Id.* at section 4.9.1, lines 1235-36.

¹⁶⁵ *Id.* at section 2.8.2, lines 793-95.

¹⁶⁶ *Id.* at section 4.9.1, lines 1238-39.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.* at lines 1239-41.

¹⁶⁹ *Id.* at section 2.8.2, lines 792-93.

¹⁷⁰ *Id.* at lines 793-95.

¹⁷¹ *Id.* at section 4.9.1, lines 1239-41.

¹⁷² *Id.* at lines 1235-36 (emphasis added).

¹⁷³ *Id.* at Table 4-11.

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* (emphasis added).

¹⁷⁶ *Id.* at section 4.9.2.1, lines 1285-86.

¹⁷⁷ *Id.* at Appendix H, Attachment C, *Letter from Cary re: Odor*, pp. 10.

¹⁷⁸ *Id.* (emphasis added).

¹⁷⁹ *Id.* at section 4.14.1.2, lines 1603-04.

¹⁸⁰ *Id.* at lines, 1630-31.

¹⁸¹ *Id.* at lines 1608-11.

¹⁸² *Id.* at lines 1611-13.

¹⁸³ *Id.* at Table 4-12.

¹⁸⁴ *Id.* at lines 1614-15.

¹⁸⁵ *Id.* at lines 1618-21.

¹⁸⁶ *Id.* at lines 1622-24.

¹⁸⁷ *Id.* at lines 1618-21.

¹⁸⁸ *Id.* at Table 4-12.

¹⁸⁹ *Id.*

¹⁹⁰ *Id.* at Table 4-12.

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- ¹⁹¹ Cary's population is currently estimated at 134,000. *Subcounty population estimates: North Carolina 2000-2006*. United States Census Bureau, Population Division. [2007-06-28](#).
http://www.census.gov/popest/cities/files/SUB-EST2006_37.csv. Cary currently covers approximately 51.39 square miles of land. *Id.*; *Town of Cary Citizen's Guide to Citizen Services*, available at <http://www.townofcary.org/depts/pio/servicebrochure.htm>. This means an average square mile in Cary has 2608 people, and that we would expect 2047 people in the half mile radius surrounding both sewage treatment facilities. Furthermore, there are approximately 2.5 people per dwelling in Cary. *Cary Population and Demographics*, available at <http://carync.areaconnect.com/statistics.htm>. Accordingly, we would expect 819 dwellings within a half mile radius of the two sewage treatment facilities, far more than are actually reported in the DEIS.
- ¹⁹² *New Orleans Population Continues Katrina Recovery; Houston Leads in Numerical Growth*, U.S. Census Bureau News, 2008-07-10.
- ¹⁹³ DEIS, section 4.14.1.2, lines 1622-24.
- ¹⁹⁴ *Id.* at Table 4-12.
- ¹⁹⁵ *Id.* at line 1625.
- ¹⁹⁶ *Id.* at Table 4-12.
- ¹⁹⁷ *Triangle Home Sales, Prices Fall*, available at <http://www.wral.com/business/story/4144158>.
- ¹⁹⁸ *New Orleans Population Continues Katrina Recovery; Houston Leads in Numerical Growth*, U.S. Census Bureau News, 2008-07-10.
- ¹⁹⁹ DEIS at Appendix H, Attachment C, *Letter from Cary re: Odor*, pp. 6.
- ²⁰⁰ *Id.* at pp. 10.
- ²⁰¹ *Id.* at section 4.14.1.2, lines 1626-28. Similar to the analysis of the other sewage treatment facilities, there is no definition of southwest Wake County and the data used for analysis of property values is from April 30, 2008, before the housing bubbling burst.
- ²⁰² *Id.* at lines 1628-29.
- ²⁰³ *Id.* at lines 1630-31.
- ²⁰⁴ The DEIS could get around the small sample size by including nationwide studies on the impact of sewage treatment facilities on property values.
- ²⁰⁵ *Id.* at lines 1614-15.
- ²⁰⁶ Affidavit of M. Denise Adams, available as Appendix R attached to this document. The affidavits goes on to state the common sense conclusion avoided by the DEIS that, "all things being equal, the vast majority of willing buyers would rather own property not adjacent to a regional wastewater facility of this size and scope, and one would have to decrease the price of their property in order to sell their home within this market." *Id.*
- ²⁰⁷ Shearon Harris Nuclear Site, Units 2 and 3 Application, available at <http://www.nrc.gov/reactors/new-reactors/col/harris.html>.
- ²⁰⁸ Progress Energy Harris Nuclear Units 2 & 3 COLA (Environmental Report), Table 5.2-2, available at http://adamswebsearch2.nrc.gov/nrcws/nrcdoccontent.aspx?Library=PU_ADAMS^PBNTAD01&LogonID=9a298a3f9431113772e8c26b21cc1121&DocID=080640095.
- ²⁰⁹ *Id.*
- ²¹⁰ *Id.* at pp. 5-30.
- ²¹¹ *Id.*
- ²¹² DEIS, section 2.4, line 292.
- ²¹³ *Id.* at section 2.4.2, line 303. The problems with the DEIS's failure to outline which discharge alternative will be employed are discussed in greater detail in Section 4.1 of this response.
- ²¹⁴ *Id.* at section 2.4.1, lines 296-97.
- ²¹⁵ *Id.* at Figure 2-6.
- ²¹⁶ *Id.* at Appendix B4, pp. 1.
- ²¹⁷ *Id.* at section 2.4.1, lines 300-301.
- ²¹⁸ Raven Rock State Park website, located at <http://www.northcarolinaoutdoors.com/places/piedmont/ravenrock.html>.
- ²¹⁹ John Hairr, *From Mermaid's Point to Raccoon Falls: A Guide to the Upper Cape Fear*, pp. 49.
- ²²⁰ Raven Rock State Park website.

²²¹ *Id.*

²²² Hairr, *A Guide to the Upper Cape Fear*, pp. 52.

²²³ DEIS, section 9, page; *Id.* at Appendix B4.

²²⁴ *Id.* at section 2.1, lines 46-54. It is also imperative to note that “despite the name ‘biosolids,’ which likens sewage sludge to an all-organic natural material, sewage sludge contains tens of thousands of other toxic substances and chemical compounds.” Blue Ridge Environmental Defense League, *Siler City WWTP, NPDES permit No. NC0026441 comments*, April 18, 2008, pp. 3, available as Appendix S attached to this document.

²²⁵ DEIS at section 2.2, lines 46-49.

²²⁶ *Id.* at lines 50-54.

²²⁷ *Id.* at section 4.8.3, lines 1179-82.

²²⁸ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 51. This variation in the number of truck loads of biosolids to be hauled offsite is obviously great and could be predicted with greater precision if the process to be used had been selected and was detailed in the DEIS.

²²⁹ *Id.* at section 2.1, lines 46-54.

²³⁰ *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 51.

²³¹ *Id.* at section 4.8.3, lines 1179-82.

²³² *Siler City WWTP*, pp. 3.

²³³ *Id.* at pp. 3-4.

²³⁴ USGS, *Occurrence of Organic Wastewater Compounds in Selected Surface-Water Supplies, Triangle Area of North Carolina*, 2002-05, available at <http://pubs.usgs.gov/sir/2007/5054/pdf/SIR2007-5054.pdf>.

²³⁵ Kinney et al, *Survey of Organic Wastewater Contaminants in Biosolids Destined for Land Application*, Environmental Science Technology, volume 40, pp. 7207-15 (2006).

²³⁶ *Siler City WWTP*, pp. 5.

²³⁷ *Id.*

²³⁸ M. McCasland, N. Trautman, K. Porter, *Nitrate: Health Effects in Drinking Water*, Natural Resources Cornell Cooperative Extension, available at <http://pmep.cce.cornell.edu/facts-slides-self/facts/nit-heef-grw85.html>.

²³⁹ Alabama Cooperative Extension System, *Animal Waste and Water Quality*, Alabama Cooperative Extension System, pp. 5, available at <http://www.aces.edu/crd/publications/wtrqlty/wq-animalwaste.pdf>.

²⁴⁰ DEIS at section 2.4.2, line 303; *Id.* at Appendix B4, pp. 1.

²⁴¹ See Section 3.2.2 of this letter.

²⁴² DEIS at section 2.4.1, lines 300-301.

²⁴³ *Id.* at section 2.4.2, line 303.

²⁴⁴ *Id.* at line 314.

²⁴⁵ *Id.* at Appendix B4, pp. 1 (noting submission of the Cape Fear River discharge model on April 30, 2002 and subsequent granting of the speculative permits on December 15, 2004.)

²⁴⁶ The DEIS notes that “NCDWQ has concerns that a new discharge to Harris Lake could result in violations of the chlorophyll *a* water quality standard of 40 ug/L. The agency has stated that it cannot permit a discharge to Harris Lake without a calibrated nutrient response model.” *Id.* at Section 2.4.2, lines 308-310. Considering the requirement of a calibrated nutrient response model, it is possible the 32 month timeline is ambitious.

²⁴⁷ *Id.* at Section 2.1, lines 12-15 (emphasis added).

²⁴⁸ *Id.* at Section 2.4.2, lines 315-317.

²⁴⁹ *Id.* at Section 2.4.1, lines 296-297.