



February 9, 2010

Mr. Henry Wicker  
USACE, Wilmington District  
Regulatory Division  
69 Darlington Avenue  
Wilmington, North Carolina 28402-1890

RE: Western Wake Regional Wastewater Management Facilities project

Dear Mr. Wicker:

The following are the written comments of the New Hill Community Association (NHCA),<sup>1</sup> represented legally by Christopher Brook of the Southern Coalition for Social Justice and Kathryn Sabbeth of the University of North Carolina-Chapel Hill School of Law. These comments are in reference to the Final Environmental Impact Statement (FEIS) produced for the US Army Corps of Engineers (USACE) and the Western Wake Partners (WWP). The FEIS reviews the impacts of the above- referenced sewage treatment facility project.

The comments below are divided into four sections. Section One reviews the alleged 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 FEIS in regards to discharges from the project.

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

The FEIS needs to look at the purpose and need for the proposed action, provide a full, 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.<sup>2</sup> Unfortunately, the FEIS, like the DEIS before it, does not fulfill the above requirements for the reasons stated below. Accordingly, NHCA requests the FEIS be supplemented and re-submitted for further public comment once it has adequately addressed the concerns specified below. NHCA also re-iterates its openness to the Partners re-starting the site selection process with the New Hill community as an active participant, removing Site 14 from its consideration, or selecting one of the three acceptable and preferable alternatives discussed in the FEIS.

### **Section 1: Need for Project**

<sup>1</sup> The NHCA is a 501(c)(4) organization with 277 members, the vast majority of which live in the New Hill community. The organization includes members who live in both Environmental Justice Groups 1 and 2, which are both discussed in greater detail in Section 3.1.1. below.

<sup>2</sup> FEIS, Executive Summary, pp. E-1; FEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 1.

### **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.”<sup>3</sup> The FEIS 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.”<sup>4</sup> This increase in population will require a “maximum month wastewater capacity for the towns” of “approximately 62 million gallons per day (mgd) by 2030.”<sup>5</sup>

Though this argument appears compelling at first blush, as was the case with the DEIS, a closer review demonstrates the figures undergirding these FEIS 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.<sup>6</sup> Based upon these serious conceptual and methodological flaws,<sup>7</sup> the DEIS “significantly overstates the likely future population of western Wake County.”<sup>8</sup> Until the projection deficiencies outlined below are corrected, the FEIS has failed to provide a solid basis for why the sewage treatment plant is necessary and, as such, is deficient.

The FEIS predicts future growth in western Wake County using the “population projection method,” which “combines Traffic Analysis Zone (TAZ) data from Cary on current and projected population *densities* with estimate potential population based on an assumed time to build out of projects.”<sup>9</sup> The methodology employed by the FEIS is not based on hard data and the projections included are not “described in sufficient detail to understand exactly how they were calculated.”<sup>10</sup> Instead of utilizing the Cohort Component Method, “the most accurate method of population projections used by demographers,”<sup>11</sup> the FEIS continues to employ a “methodologically and conceptually flawed” engineering method of population projection.<sup>12</sup>

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<sup>3</sup> *Id.*, Section 1.3, lines 114-16.

<sup>4</sup> *Id.* at lines 123-27.

<sup>5</sup> *Id.* at lines 128-29.

<sup>6</sup> 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 the NHCA DEIS comments.

<sup>7</sup> *Id.* at pp. 1.

<sup>8</sup> *Id.*

<sup>9</sup> Dr. Allan Parnell, *Assessment of the Population Projections Used in the Environmental Impact Statement for the Proposed Western Wake County Water Treatment Facilities*, February 4, 2010, available as Appendix A attached to this document.

<sup>10</sup> *Id.* at pp. 2.

<sup>11</sup> Parnell, April 23, 2009, pp. 2.

<sup>12</sup> Parnell, February 4, 2010, pp. 1.

In addition to the problems associated with failing to sufficiently explain the methodology employed and failing to use best practices, the projections used in the FEIS are problematic because they assume “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.”<sup>13</sup> 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 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 FEIS. 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.”<sup>14</sup> While acknowledging these concerns, the FEIS does not seriously address them or take these facts into account in its population projection.<sup>15</sup>

Second, the FEIS 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.<sup>16</sup> 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.”<sup>17</sup> 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.”<sup>18</sup> For example, Apex’s projected growth is based on residential construction rates.<sup>19</sup> 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.<sup>20</sup> “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.”<sup>21</sup> Along the same lines, the number of building permits issued in Cary dropped from 3540 in 2007 to 2625 in 2008, of which over half were for

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<sup>13</sup> Parnell, April 23, 2009, pp. 2.

<sup>14</sup> *Id.* at pp. 3.

<sup>15</sup> FEIS, section 1.3; FEIS, Appendix A-12b, Response II.8.

<sup>16</sup> *Homeowners Fight Cary Annexation*, March 9, 2009, available at <http://www.wral.com/news/local/story/4527621>.

<sup>17</sup> Parnell, April 23, 2009, pp. 3.

<sup>18</sup> *Id.*

<sup>19</sup> *Id.* at pp. 5.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.*

additions as opposed to new construction.<sup>22</sup> Similarly, building permits in Holly Springs dropped from 796 in 2007 to 604 in 2008.<sup>23</sup> Though there are no building permit figures available yet from 2009,<sup>24</sup> 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.<sup>25</sup>

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 FEIS. By choosing the simple means of projecting based on past development, the figures in the FEIS fail to consider the physical, political, and economic impediments to such continued growth. The result is a projected population unsupported by transparent or sound methodology and which fails to take further development in a meaningful context. Until a realistic assessment of growth in western Wake County is conducted, the level of sewage treatment need cannot be adequately gauged, and the FEIS is incomplete.

### **Section 1.2: Intrabasin Transfer (IBT) Requirement**

As noted in the FEIS, “the Towns of Apex, Cary, and Morrisville, and RTP South obtain their drinking water from Jordan Lake in the Cape Fear River Basin and currently discharge treated effluent to locations in the Neuse River Basin.”<sup>26</sup> “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... and discharge (transfer) up to 24 million gallons per day... of the water to the Neuse River Subbasin” so long as a portion of this was returned “to the Haw or Cape Fear River Basin after 2010.”<sup>27</sup>

In spite of ample evidence to the contrary,<sup>28</sup> the DEIS and Cary Mayor Harold Weinbrecht cast the Site 14 sewage treatment plant as a means of meeting this January 1, 2011 mandate.<sup>29</sup> Thankfully, the FEIS dispenses with this fiction, noting that “to meet the requirements of the certificate, the Towns have arranged to initially comply with the return requirement after 2010 through an Interlocal agreement with Durham County.”<sup>30</sup> Unfortunately, the FEIS’s consideration of this new Interlocal agreement, “allow[ing] for the transfer of wastewater to Durham County through June 30, 2014 and provid[ing] for compliance with the requirements of

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<sup>22</sup> Parnell, February 4, 2010, pp. 3.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* The FEIS assertion that “the latest data on housing starts indicate that the development rate is once again rising,” but fails to document where this assertion comes from, making it impossible to evaluate and, therefore, unpersuasive. FEIS, Appendix A-12b, Response II.10.

<sup>25</sup> Parnell, April 23, 2009, pp. 5.

<sup>26</sup> FEIS, section 1.2.1, at lines 54-56.

<sup>27</sup> *Id.* at lines 61-63.

<sup>28</sup> See NHCA April 28, 2009 letter to USACE, endotes 31-39.

<sup>29</sup> *Id.* at endnotes 27-28.

<sup>30</sup> FEIS, section 1.2.1, lines 69-71.

the IBT certificate prior to the completion of the Western Wake WRF,”<sup>31</sup> leaves unresolved many of the problems that plagued this section of the DEIS.

First, the FEIS concludes, without adequate support or documentation, that “the Western Wake WRF and associated facilities are currently scheduled for completion in 2013.”<sup>32</sup> A closer examination of previously promulgated timelines reveals this conclusory assertion is untenable.

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 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.”<sup>33</sup>

In a timeline promulgated at an April 14, 2009 open house, USASCE projected “Final EIS preparation” in “April-July 2009,” “Record of Decision” in “September 2009,” “Permitting and Approvals” in “April-September 2009,” “NPDES Permit Public Comment Period” and “NPDES Permit Public Hearing” in “Summer 2009,” “bidding and award of construction contracts” in “October 2009-February 2010,” and “construction” from March 2010-February 2013.”<sup>34</sup>

What is initially striking about these projections is how far behind the projected schedule the Partners have fallen, calling into question their current, rosy timelines. Specifically, the Partners have not yet met the December 2006 benchmarks laid out above by Cary.<sup>35</sup> Along the same lines, and despite the fact that the subsequent timeline is not yet 10 months old, the Partners have not yet met all “Summer 2009” benchmarks laid out by the USACE.<sup>36</sup> Using these timelines as a guide, the Partners would have to greatly compress their completion of tasks, including, but not

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<sup>31</sup> *Id.* at lines 73-76.

<sup>32</sup> *Id.*, section 1.3, lines 150-51.

<sup>33</sup> Western Wake Regional Management Facilities (WWRWMF), Powerpoint, pp. 5, available as Appendix B attached to NHCA DEIS comments. 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.

<sup>34</sup> *Proposed Project’s Schedule*, attached as Appendix B.

<sup>35</sup> Obviously, as this letter comments on the FEIS, we have not yet completed “regulatory review and approval process.” More subtly, the Partners have not yet finalized funding for the project as evidenced by recent earmark requests by Senator Kay Hagan and Representative Brad Miller to obtain \$2,000,000 in funding for the sewage treatment plant. See [http://hagan.senate.gov/?p=funding\\_request&id=41](http://hagan.senate.gov/?p=funding_request&id=41); [http://www.washingtonwatch.com/bills/show/ED\\_41676.html](http://www.washingtonwatch.com/bills/show/ED_41676.html).

<sup>36</sup> At present, the NPDES Permit Public Comment Period has not begun, nor has it been scheduled. Along the same lines, the “permitting and approvals” have not been completed, nor has the Record of Decision been published.

limited to, permitting, bidding and awarding of construction contracts, and actual construction of the facilities, in order for the sewage treatment plant to be operational by June 30, 2014.

Second, even if the proposed facilities could be completed by the date of the IBT regulatory requirement, the current FEIS treatment of this issue would still be deficient. Specifically, the FEIS discussion of the IBT requirement does not analyze or reference other means of realizing this requirement post June 30, 2014.<sup>37</sup> As the current interim arrangement with Durham County makes plain, there are clearly alternatives for realizing the IBT regulatory requirement. One method of realizing this requirement after June 30, 2014 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 considered by the FEIS.<sup>38</sup> Another option not considered in the FEIS would be to approach the mandating agency, NCEMC, about revising the IBT requirement substantively or in regards to the deadline. Though not considered by the FEIS, it has at least been obliquely considered by Partner members.<sup>39</sup> However, it is unclear at this point whether the Partners have approached NCEMC about other means to realize this requirement or the revision or elimination of this requirement. Regardless of the status of alternatives, and as was the case with the DEIS that preceded it, the mere presence of a regulatory deadline is not an excuse for the hasty, incomplete analysis found in the FEIS.

In short, the argument that the proposed project is necessary to meet the IBT requirement remains a straw man. It is still unclear that the Partners can meet the new June 30, 2014 deadline. Even if this deadline could be met by this sewage treatment plant, the presence of a deadline is not license to ignore the obligation that the FEIS consider alternative means of realizing the IBT requirements.

### **Section 1.3: Discharge by Holly Springs to Utley Creek**

The FEIS notes, as the DEIS noted previously, 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.”<sup>40</sup> Tying this to the aforementioned IBT deadline, the FEIS highlights “NCDENR stated in a Finding of 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. 143-125.221.’”<sup>41</sup> Holly

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<sup>37</sup> FEIS, section 1.2.1.

<sup>38</sup> *Id.*

<sup>39</sup> NHCA April 28, 2009 letter, endnote 42.

<sup>40</sup> FEIS, section 1.2.2, lines 79-83.

<sup>41</sup> *Id.* at lines 89-95.

Springs then indicated it would use the sewage treatment plant to meet its obligations to cease discharging into Utley Creek.<sup>42</sup>

As it became apparent the sewage treatment plant planned for New Hill could not assist in meeting the IBT requirements by January 1, 2011, it also became clear Holly Springs could not piggyback on the plant to cease its effluent discharge into Utley Creek by January 1, 2011.<sup>43</sup> Given this, NCDWQ gave Holly Springs a pass, “indicating that as long as the Partners are complying with the requirements of the IBT certificate, the Town of Holly Springs will be deemed to be meeting the requirements in the FONSI.”<sup>44</sup> In short, Holly Springs no longer has any independent obligation to cease discharging into Utley Creek, revealing this goal is not a priority. The evisceration of this “requirement” reveals it is not truly animating the construction of the WWRWRF, and, therefore, should be eliminated from the FEIS as a justification.

If the “requirement” to cease discharge into Utley Creek is to serve as a continuing justification for the WWRWRF, then alternative means of mitigating nutrient enrichment in Utley Creek should be considered by the FEIS. Explaining the failure of the FEIS, and the DEIS before it, to consider such alternatives, the USACE highlights that “the Town of Holly Springs completed an environmental assessment (EA) for expansion of its Utley Creek WWTP under a separate process, *as that expansion is not dependent on the Western Wake Regional WRF*,”<sup>45</sup> therefore, “the NEPA EIS is not required to review an alternative for the Utley Creek WWTP.”<sup>46</sup> The FEIS is attempting to have it both ways: arguing that the Utley Creek discharge “requirement” is so intertwined with the proposed sewage treatment plant that it justifies its construction, while also arguing that these projects are so separate that alternative means of limiting Utley Creek nutrient enrichment need not be considered. Moving forward, the USACE should either acknowledge the projects are separate and eliminate Utley Creek as a justification or acknowledge the projects are so intertwined that the same weighing of alternatives is necessary in the FEIS.

While its inclusion in the FEIS is misleading, the creative means of realizing the “requirement” to cease the Utley Creek discharge, and associated nutrient enrichment, is instructive. If this goal remains, then Holly Springs could work with NCDWQ to creatively address Utley Creek nutrient enrichment as it has done in obtaining an indefinite pass in complying with this requirement. As noted previously in NHCA’s comments subsequent to the publication of the DEIS, Holly Springs could utilize advance technologies to address its contribution to nutrient enrichment in Utley Creek. Land use planning could also potentially serve this purpose. Unfortunately, the FEIS, like the DEIS before it, does not analyze such alternatives, and, instead, is seemingly more interested in utilizing such problems to justify its preference for Site 14, than actually addressing the underlying concern. Without consideration of such alternatives, the FEIS is deficient.

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<sup>42</sup> *Id.*, Appendix B-2, February 6, 2007 letter from Carl Dean, Holly Springs Town Manager.

<sup>43</sup> *Id.*, section 1.2.2, lines 89-95.

<sup>44</sup> *Id.* at section 1.2.2, lines 96-98.

<sup>45</sup> *Id.*, Appendix A-12b, Response II.12 (emphasis added).

<sup>46</sup> *Id.*

## **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 in their heels 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 FEIS.

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.<sup>47</sup> 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."<sup>48</sup> These investigations yielded 29 potential sites for the sewage treatment facility.<sup>49</sup> According to Technical Memorandum 8.0, "the area requirements for each WRF site range from 140 to 180 acres;"<sup>50</sup> based on this requirement, the 29 potential sites originally identified were whittled down to 12.<sup>51</sup> 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."<sup>52</sup> Despite such questionable criteria, Site 14 was only ranked fourth overall.<sup>53</sup> 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."<sup>54</sup> What these "discussions with the Technical Management Team" entailed was never made clear or public.<sup>55</sup>

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<sup>47</sup> *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 NHCA DEIS comments.

<sup>48</sup> *Technical Memorandum 8.0*, CDM/Hazen and Sawyer, pp. 1, available as Appendix D attached to NHCA DEIS comments.

<sup>49</sup> *Id.* at pp. 4-7.

<sup>50</sup> *Id.* at pp. 2.

<sup>51</sup> *Id.* at pp. 4, 8.

<sup>52</sup> *Id.* at pp. 12.

<sup>53</sup> *Id.* at pp. 9-18.

<sup>54</sup> *Id.* at pp. 19.

<sup>55</sup> *Id.*

Site 14 was one of the three sites tabbed for further investigation.<sup>56</sup> 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.”<sup>57</sup> Dubiously, CDM/Hazen and Sawyer noted that its use as the cost predictor was merely “for planning purposes.”<sup>58</sup>

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.”<sup>59</sup> 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.”<sup>60</sup> 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](http://www.westernwakepartners.org),”<sup>61</sup> a website with little beyond boilerplate justifying the selection of Site 14.

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.”<sup>62</sup> 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.<sup>63</sup> Finally, Site 8, “though initially eliminated from consideration due to the presence of intermittent streams and its relatively small size”<sup>64</sup> and not one of the twelve sites

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<sup>56</sup> *Id.*

<sup>57</sup> *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 NHCA DEIS comments. 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.

<sup>58</sup> *Id.*

<sup>59</sup> Susan Moran 11/30/04 email, available as Appendix F attached to NHCA DEIS comments.

<sup>60</sup> Carl Dean 12/16/04 email, available as Appendix G attached to NHCA DEIS comments.

<sup>61</sup> Leila Goodwin 5/27/2005 email, pp. 2, available as Appendix H attached to NHCA DEIS comments.

<sup>62</sup> *Technical Memorandum 8.1*, CDM/Hazen and Sawyer, available as Appendix I attached to NHCA DEIS comments.

<sup>63</sup> *Id.*

<sup>64</sup> *Technical Memorandum 8.1*, pp. 1.

ranked in Technical Memorandum 8.0,<sup>65</sup> “was determined to merit further investigation.”<sup>66</sup> Tellingly, Site 14, now Site C in Technical Memorandum 8.1,<sup>67</sup> was being considered opposite a lower ranked alternative and one which had previously not even warranted ranking;<sup>68</sup> the three sites ranked above Site 14 in Technical Memorandum 8.0 were eliminated without explanation.<sup>69</sup> Little wonder then that Technical Memorandum 8.1 concluded “Site C is the recommended site for the Western Wake WRF.”<sup>70</sup> Again, the FEIS 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.<sup>71</sup> Subsequently, it came to light that the Apex Town Council had never voted on the condemnation of this property.<sup>72</sup> 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.<sup>73</sup> However, neither the Morrisville nor the Holly Springs town councils approved the condemnation of this land.<sup>74</sup> The municipal approval of condemnation culminated with the

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<sup>65</sup> *Technical Memorandum 8.0*, CDM/Hazen and Sawyer, pp. 8, available as Appendix I attached to NHCA DEIS comments.

<sup>66</sup> *Technical Memorandum 8.1*, pp. 1.

<sup>67</sup> *Id.* at Figure 8.1-1.

<sup>68</sup> *Technical Memorandum 8.0*, pp. 18; *Technical Memorandum 8.1*.

<sup>69</sup> *Technical Memorandum 8.1*. It also worth noting that each of these three highest ranked properties are owned by Progress Energy. *Complaint in NHCA, et al v. WWP, et al.*, no. 19, available as Appendix J attached to NHCA DEIS comments.

<sup>70</sup> *Technical Memorandum 8.1* at pp. 12.

<sup>71</sup> *Mayor Weatherly Letter*, June 3, 2005, available as Appendix K attached to NHCA DEIS comments.

<sup>72</sup> *Town of Apex Board of Commissioners Meeting Minutes*, December 20, 2005, pp. 8, available as Appendix L attached to NHCA DEIS comments.

<sup>73</sup> *Mayor Cromwell Letter*, June 3, 2005, available as Appendix M attached to NHCA DEIS comments; *Mayor Dick Sears Letter*, June 7, 2005, available as Appendix N attached to NHCA DEIS comments.

<sup>74</sup> *Complaint in NHCA, et al v. WWP, et al.*, no. 29.

Cary Town Council voting to condemn land for Site 14 on June 23, 2005.<sup>75</sup> The motion to condemn carried by a four to three vote.<sup>76</sup>

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.”<sup>77</sup> A four-to-three vote of the Cary Town Council does not constitute the requisite unanimous action, nor do simple letters 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.<sup>78</sup>

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 any environmental impact statement was drafted. 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: governmental entities should not be able to escape the consequences of sloppy environmental

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<sup>75</sup> *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 NHCA DEIS comments. This failure is considered in greater detail in Section 3.1.2 below.

<sup>76</sup> *Cary Town Council Meeting Minutes*, June 23, 2005, available at <http://www.townofcary.org/agenda/councilmin05/cm062305.htm>. 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.*

<sup>77</sup> *Amendment No. 1*, Section 2.03 (emphasis added).

<sup>78</sup> 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.

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.”<sup>79</sup> While not conceding that “it would cost a couple million” to change sites at this late date,<sup>80</sup> the argument is plain: we have spent too much money already to re-visit past decisions now.

And, yet, despite the myriad problems leading to the selection of Site 14, the FEIS either fails to adequately consider them or excuses them.

In regards to the former, the FEIS does not substantively address the Partners’ efforts to avoid public comment in the site selection process, or the chilling effect premature condemnation had on public comment.<sup>81</sup>

In regards to the latter, the FEIS claims their analysis was not jaundiced by the Partners’ site selection process.<sup>82</sup> The evidence tells a different story. Most notably, the Partners and the USACE used the same consultants to produce their respective environmental impact analyses.<sup>83</sup> Explaining this disquieting fact, the FEIS notes that once they came into the process the consultants worked “under the direction of the USACE” and “were required to sign a document that indicated they could not benefit from the result of the EIS study.”<sup>84</sup> This rationale not only gives consultants too much credit for being able to dispassionately review their own analysis, but also highlights the level to which the USACE owns the Partners’ site selection process. Little wonder then that the FEIS fails to meaningfully review decisions such as Site 14 leapfrogged higher ranked alternative sites, a decision the Partners’ and its consultants were behind.

Finally, and most notably, the FEIS excuses the Partners’ condemnation of land for Site 14 before they had meaningfully involved the public or considered environmental impacts. As

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

<sup>80</sup> 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 were never made in any detailed fashion.

<sup>81</sup> This chilling effect is made apparent by the fact that, during the course of public outreach to communities potentially impacted by the sewage treatment facility, said communities were “unclear as to why other sites were being considered for water treatment facility if Site 14 was already purchased.” FEIS, Appendix H, Attachment A, pp. 23.

<sup>82</sup> Most notably, the FEIS states starkly, “While the USACE understands the concern about the Partners’ selection of Site 14, the USACE cannot tell an applicant which project to propose.” FEIS, Appendix A 12-b, Response I.1.

<sup>83</sup> *Id.*

<sup>84</sup> *Id.*

noted previously in NHCA DEIS comments, 40 CFR 1502.2(f) states “agencies shall not commit resources prejudicing selection of alternatives before making a final decision.” Challenged with the Partners’ blatant violation of the spirit of the provision, the FEIS washes its hands of it, noting “the agencies (USACE as lead and North Carolina Division of Water Quality [NCDWQ]) have not committed any resources that would prejudice the selection of alternatives before making the final decision.”<sup>85</sup> While perhaps accurate in the most technical of senses, the USACE must appreciate the shell game it is encouraging municipalities to engage in: condemn the land before it can be reviewed, building momentum for the land being put to the suggested use, and only then bring in federal authorities to conduct the requisite environmental analysis. Such an end run around the law must not be permitted. Even more importantly, the FEIS’s disavowal of the selection process is disingenuous in a broader, more fundamental sense. What began as the Partners’ condemnation of Site 14 for a sewage treatment facility has resulted in the USACE endorsing the condemnation of Site 14 for a sewage treatment facility, with the same consultants along for the entire ride. Decisions made the Partners and endorsed by the USACE prevented a true consideration of alternative sites, an essential requirement of the NEPA process.

## **Section 2.2: Public Outreach to Site 14 and Alternatives**

The Environmental Justice Analysis of the FEIS 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.<sup>86</sup>

Of those interviewed in the immediate vicinity of Site 14, “the number of individuals who oppose the project is greater than the number of individuals who support the project”<sup>87</sup> and all such situated “residents... were happy to be informed that other sites were being considered.”<sup>88</sup>

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<sup>85</sup> *Id.*, Response I.7.

<sup>86</sup> FEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 2-3.

<sup>87</sup> FEIS, Appendix H, Attachment A, *Summaries of Public Outreach Efforts*, pp. 15.

<sup>88</sup> *Id.* at pp. 24.

Moreover the immense unpopularity of the sewage treatment plant is only one of the problems revealed in an evaluation of the public outreach conducted.

First, the data reported as a result of these public outreach efforts is alarming. As discussed elsewhere in these comments, Site 14 has tremendous human and minority impacts when compared to other alternative sites. In door-to-door outreach conducted in the vicinity of Site 14 on January 12-13, 2008, surveyors spoke to 17 homeowners, 16 of whom were African-American.<sup>89</sup> By way of comparison, in door-to-door outreach on the same days at Sites 17, 19, and 21/23, surveyors spoke to a total of 17 homeowners, 1 of who is identified as African-American.<sup>90</sup> Similarly, December 15-16, 2007 door-to-door outreach at Sites 17, 19, 21, 23, and 30 targeted a grand total of 24 parcels, 14 of which “are owned by companies or out of town property owners.”<sup>91</sup> These outreach efforts resulted in conversations with six property owners, one of who was African-American.<sup>92</sup> The messages from this data are clear: Site 14 impacts far more people and African-Americans than the other sites.

Second, the material handed out as part of public outreach was not designed to illuminate or illicit questions or commentary on Site 14’s impact. The project fact sheet distributed as part of outreach is little more than boilerplate aimed at re-assuring nearby residents that “impacts to nearby residents residing in the area immediately surrounding the WRF property will be minimal.”<sup>93</sup> While there is a very brief boilerplate discussion of noise, lighting, odor, and traffic impacts, there is no reference in the fact sheet to how the site was selected, the disproportionate human or minority impacts from Site 14, its impacts on property values, the New Hill Historic District, or sewage sludge.<sup>94</sup> The project fact sheet is a work of advocacy, not an objective analysis of impacts or a platform from which impacted individuals can ask probing questions.

Finally, as was commented on by NHCA in the case of the DEIS, there is limited substantive information in the FEIS in regards to public outreach conducted. 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 the interviewee, and what specific concerns were voiced by interviewees are not included in the FEIS.<sup>95</sup> Furthermore, there is no information included in the FEIS on the demographic composition of the interviewees interviewed in the vicinity of Site 14 during December 2006 and January 2007.<sup>96</sup> Perhaps this dearth of information results from the fact that “five minutes was the average time spent with

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<sup>89</sup> *Id.* at pp. 23.

<sup>90</sup> *Id.* at pp. 24.

<sup>91</sup> *Id.* at pp. 21.

<sup>92</sup> *Id.* at pp. 1-30.

<sup>93</sup> *Id.* at pp. 7.

<sup>94</sup> *Id.* at pp. 7-8.

<sup>95</sup> *Id.*

<sup>96</sup> *Id.* at pp. 13-16.

interviewees.”<sup>97</sup> Regardless of the basis for the paucity of information, this lack of transparency into the public outreach process flies in the face of the purpose and spirit of the NEPA process.

The questions answered by the aforementioned public outreach are almost as alarming as the questions still unanswered. Public outreach confirmed the overwhelming unpopularity of Site 14 as well as its disproportionate human and minority impact. Yet the outreach offered only five minutes for those most directly impacted to make their concerns known, as opposed to a genuine outlet for commentary, questions, and feedback. Without the details outlined above and the original interview intake documentation, the public cannot assess the thoroughness and accuracy with which the interviews were conducted, the thoroughness and accuracy of the summary of community responses, nor determine whether the interviewees selected were representative of the broader community. In short, as NHCA noted was also the case with the DEIS, the FEIS is deficient and incomplete absent a meaningful effort at individual public outreach to support the environmental justice analysis undertaken and conclusion drawn therefrom.

### **Section 3: Impacts of Project**

#### **Section 3.1: Impacts on New Hill Community**

##### **Section 3.1.1: Environmental Justice**

As the FEIS 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.’”<sup>98</sup> 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.”<sup>99</sup> The DEIS goes on to indicate “that a minority population should be identified if that population exceeds 50 percent 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.’”<sup>100</sup>

In its discussion of the environmental justice component of the sewage treatment plant, the FEIS is inconsistent, seeming at times to have been written by two different people. On the one hand, the FEIS alleges that there will be no racially disparate impact from the sewage treatment facility. However, subsequently the FEIS 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.”<sup>101</sup> A review of these dueling views reveals that they originate from different statistical parameters; however, narrow the review to the community most directly impacted by

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<sup>97</sup> *Id.*, Appendix A-12b, Response III.117.

<sup>98</sup> *Id.*, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 1.

<sup>99</sup> *Id.*

<sup>100</sup> *Id.* at pp. 8.

<sup>101</sup> *Id.* at pp. 47.

the sewage treatment plant demonstrates it is overwhelmingly minority, while the communities served by this sewage treatment plant are overwhelmingly white.

At first, the figures compiled in the FEIS 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 FEIS 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.”<sup>102</sup> 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.”<sup>103</sup> In regards to racial comparisons, the FEIS notes that “the percentage of the population in Wake County considered minority is 30 percent, and the percentage of the population in Chatham County considered minority is 28 percent.”<sup>104</sup> By way of comparison, “of the 90 census blocks potentially affected by the Partners’ proposed project and three alternatives... 14 of the blocks’ percentages are higher than the Wake County or Chatham County percentages.”<sup>105</sup>

The major problem with this analysis 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 income<sup>106</sup> and race<sup>107</sup> is misplaced. Very few people 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. When the focus shifts to the more appropriate Western Wake WRF service area, the percentage of the population below the poverty line plummets to 3.06%<sup>108</sup> and the minority percentage drops to “just over 19 percent.”<sup>109</sup>

In fairness, in addition to this misleading information, the FEIS 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.<sup>110</sup> This 36% minority percentage impacted by this sewage treatment plant is nearly twice the percentage of minorities who will be served by the sewage treatment facility in the Partner communities,<sup>111</sup> and constitutes a minority population in

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<sup>102</sup> *Id.* at pp. 6.

<sup>103</sup> *Id.*

<sup>104</sup> *Id.* at pp. 9.

<sup>105</sup> *Id.* at pp. 13.

<sup>106</sup> *Id.* at pp. 6; *Id.* at Table 1.

<sup>107</sup> *Id.* at pp. 13.

<sup>108</sup> *Id.* at Table 1.

<sup>109</sup> *Id.* at pp. 13

<sup>110</sup> *Id.* at Appendix H, Attachment B, Table 8.

<sup>111</sup> *Id.* at Appendix H, pp. 13

and of itself according to USEPA guidelines.<sup>112</sup> Focusing in on the census blocks bordering and including Site 14 reveals there are 196 people in this area, 162 of whom minorities.<sup>113</sup> 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.<sup>114</sup> 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.<sup>115</sup>

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,<sup>116</sup> 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, oppose only 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,<sup>117</sup>

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<sup>112</sup> *Id.* at pp. 8.

<sup>113</sup> *Id.* at Appendix H, Attachment B, Table 8, Figure 8.

<sup>114</sup> *Id.* at Appendix H, pp. 13.

<sup>115</sup> *Id.*

<sup>116</sup> *Id.* at Appendix A-12b, Response III.122. In this section the FEIS notes "data on incomes of individuals" in these EJ groups "are not available." *Id.* Implicit in this comment is the fact that neither the Partners, nor the FEIS saw the need for compiling this information.

<sup>117</sup> *Id.* at Appendix H, Attachment B, Table 8.

there are only 379 people living within that distance of Site 19,<sup>118</sup> 72 people living within that distance of Site 21/23,<sup>119</sup> and 248 people living within that distance of Site 30.<sup>120</sup> Narrowing the review further, in comparison to the 196 people living in a census block adjacent to Site 14,<sup>121</sup> there are only 38 people living in a census block adjacent to Site 19,<sup>122</sup> 38 people living in a census block adjacent to Site 21/23,<sup>123</sup> and 33 people living in a census block adjacent to Site 30.<sup>124</sup> 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,<sup>125</sup> there are only 110 members of the minority population living within that distance of Site 19,<sup>126</sup> 23 minorities living within that distance of Site 21/23,<sup>127</sup> and 113 members of the minority population living within that distance of Site 30.<sup>128</sup> 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,<sup>129</sup> only 12 minorities are within a half mile of Site 21/23, but not Site 14,<sup>130</sup> and no minorities are within a half mile of Site 30, but not Site 14.<sup>131</sup> 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;<sup>132</sup> 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;<sup>133</sup> 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

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<sup>118</sup> *Id.* at Table 12.

<sup>119</sup> *Id.* at Table 16.

<sup>120</sup> *Id.* at Table 20.

<sup>121</sup> *Id.* at Table 8, Figure 8.

<sup>122</sup> *Id.* at Table 12, Figure 12.

<sup>123</sup> *Id.* at Table 16, Figure 16.

<sup>124</sup> *Id.* at Table 20, Figure 20.

<sup>125</sup> *Id.* at Table 8.

<sup>126</sup> *Id.* at Table 12.

<sup>127</sup> *Id.* at Table 16.

<sup>128</sup> *Id.* at Table 20.

<sup>129</sup> *Id.* at Table 8, 12.

<sup>130</sup> *Id.* at Table 8, 16.

<sup>131</sup> *Id.* at Table 8, 20.

<sup>132</sup> *Id.* at Table 8, Figure 8; *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 13.

<sup>133</sup> *Id.* at Table 8, Figure 8; *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 13.

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 FEIS 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.”<sup>134</sup> 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.”<sup>135</sup> As “the two identified minority communities do not fall within the boundary or 0.5 mile of Site 21/23”<sup>136</sup> and “no minority communities are located within the boundary or 0.5 mile of South 30,”<sup>137</sup> members of two communities are also unlikely to see the sewage treatment facilities from their residences.<sup>138</sup>

Second, only Site 14 would have temporary or permanent noise impacts on the surrounding minority populations. The FEIS 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.”<sup>139</sup> 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.”<sup>140</sup> While Section 3.1.3 details the shortcomings of the noise analysis contained in the FEIS 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 FEIS 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,” including some that will remain on all night.<sup>141</sup> In regards to the other alternatives, the FEIS predicts members of the minority communities are unlikely to see temporary or permanent light impacts from the facilities from their residences because of the distance.”<sup>142</sup>

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

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<sup>134</sup> *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 17.

<sup>135</sup> *Id.*

<sup>136</sup> *Id.* at pp. 18.

<sup>137</sup> *Id.*

<sup>138</sup> *Id.*

<sup>139</sup> *Id.* at pp. 19.

<sup>140</sup> *Id.* at pp. 20, 21.

<sup>141</sup> *Id.* at pp. 22.

<sup>142</sup> *Id.* at pp. 23-24.

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.<sup>143</sup>

In an improvement upon the DEIS, the FEIS grudgingly acknowledges that both environmental justice groups are located to the east of Site 14, putting them in the path of the prevailing Wake County winds and odors from the sewage treatment facility.<sup>144</sup> 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.<sup>145</sup> Though the DEIS fails to make this explicit, it is also worth noting that the environmental justice communities are not downwind of either Site 19<sup>146</sup> or Site 21/23.<sup>147</sup>

In regards to its current treatment of environmental justice concerns, the FEIS is deficient on numerous grounds. As was also the case with the DEIS, the FEIS 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 FEIS should then be more frank and explicit about the essential reality: that the

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<sup>143</sup> *Id.* at pp. 26.

<sup>144</sup> *Id.*, Appendix A-12b, Response III.121. It is also worth mentioning that the Partners’ general downplaying of odor impacts as something that “may occasionally be detected beyond the property line of the facility after it is placed in operation” is not in keeping with the experience of residents near Partner managed facilities. *Id.* at Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 26. Attached as Appendix C to this document are compiled emails chronicling complaints from residents around the South Cary sewage treatment plant. Providing two examples of community comments, on December 21, 2007, community resident Bill Goldman lamented, “I know it is difficult for a lot of people to understand but it really has been a burden on many people here in the immediate area surrounding the plant due to the horrible odors.” On July 15, 2009, more than a year and a half later, community resident Susan Stone noted to a Cary employee “it almost never fails... I say something positive and then the smell comes back strong. That’s exactly what happened. It was the day after I saw you, when it started to smell a little bit and then over the last few days it has gotten worse with tonight being absolutely unbearable.” Though indicative of the types of complaints logged, these are certainly not the only complaints contained in Appendix C.

<sup>145</sup> *Id.*, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis*, pp. 27-29.

<sup>146</sup> *Id.* at Appendix H, Attachment B, Figure 12.

<sup>147</sup> *Id.* at Appendix H, Attachment B, Figure 16.

sewage treatment facility's benefits will accrue overwhelmingly to whites,<sup>148</sup> while its burdens will be born overwhelmingly by minorities.<sup>149</sup>

On a more elemental level, the FEIS 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 2<sup>150</sup> 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 inhabitants<sup>151</sup> 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.<sup>152</sup>

To manage these massive environmental justice concerns, the FEIS notes "water and sewer service will be made available to properties located wholly within census block 534.03-1053 following completion of the proposed water reclamation facility at Site 14."<sup>153</sup> In previous discussions, the USACE acknowledged such measure were motivated by the fact 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."<sup>154</sup> Furthermore, the March 28, 2007 Town of Apex *Site 14 Water and Sewer Extension Policy* was 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."<sup>155</sup>

Frustratingly, both the Partners and the FEIS attempt to back away from their prior labeling of water and sewer extension as a mitigation effort based on environmental justice concerns. The more recent August 4, 2009 Town of Apex *Site 14 Water and Sewer Extension Policy* is generic in arguing "water and sewer service is being offered to these properties by the Town of Apex under the special conditions of this policy in response to community concerns about the potential for impacts from locating a water reclamation facility on Site 14."<sup>156</sup> The FEIS argues "the Site 14 Water and Sewer Extension Policy is being voluntarily offered by the Partners to the residents of that census block. While USACE considers that the policy would decrease any potential adverse impacts, USACE has not stated that mitigation is required for any WRF site. The Water and Sewer Extension Policy that contains the statement" that this constituted a mitigation plan "was

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<sup>148</sup> *Id.*, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis* at pp. 13.

<sup>149</sup> *Id.*, Appendix H, Attachment B, Table 8, Figure 8.

<sup>150</sup> *Id.*, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis* at pp. 13.

<sup>151</sup> *Id.*

<sup>152</sup> See above discussion.

<sup>153</sup> FEIS, Appendix H, Attachment D, pp. 3.

<sup>154</sup> DEIS, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis* at pp. 80-81.

<sup>155</sup> *Id.* at Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 1 (emphasis added).

<sup>156</sup> FEIS, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 1.

developed by the Partners.”<sup>157</sup> In short, while acknowledging the Partners previously labeled this sewer and water extension a mitigation plan, and while also arguing this plan “would decrease any adverse impacts”<sup>158</sup> from Site 14 on what they have labeled an environmental justice group, the USACE is quibbling over whether this constitutes a mitigation plan due to environmental justice concerns. Perhaps the time spent with such verbal gymnastics could have been better spent ascertaining information still not present in the FEIS, the poverty rate in this census block, because it ultimately cannot change the motivating factor behind this proposal: mitigating the environmental justice concerns promoted by Site 14’s impact.

Having said this, a thorough review of this modest mitigation plan demonstrates that even it has multiple deficiencies that must be addressed.

First, due to cost considerations, it is unclear whether this mitigation plan will serve its stated purpose of extending water and sewer service to census block 534.03-1053. The *Site 14 Water and Sewer Extension Policy* promises “the Town of Apex will reimburse each participating property owner up to \$1,500 for work required to establish the water connection, plus, if applicable, up to \$1,500 for work required to establish the sewer connection.”<sup>159</sup> There is no information about how this \$1,500 figure was calculated, nor whether it will be sufficient “to establish the water” or “sewer connection.”<sup>160</sup> Furthermore, the policy states “the cost of extending service from the property line to the house/building is the property owner’s responsibility.”<sup>161</sup> The policy also indicates that it will require individuals in census block 534.03-1053 to install backflow preventers, a pressure relief mechanism, and a pressure reducing valve,<sup>162</sup> further expenses cutting in to the \$1,500 offered in the mitigation plan.

Second, the proposal states that “the property owners must apply for service by January 1, 2012.”<sup>163</sup> Even the most sanguine assessment has the Site 14 sewage treatment plant coming on line some time in 2013.<sup>164</sup> Perhaps a better indication of when Site 14 will come on line is the fact that the Partners have the option to continue meeting the requirements of their IBT certificate via “the transfer of wastewater to Durham County through June 30, 2014.”<sup>165</sup> As was the case in the DEIS, this January 1, 2012 deadline is arbitrary and far too early in light of the fact that the sewage treatment plant will not be operational until long after the request for service deadline has passed.

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<sup>157</sup> *Id.*, Appendix A-12b, Response III.110.

<sup>158</sup> *Id.*

<sup>159</sup> *Id.*, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 7.

<sup>160</sup> *Id.*

<sup>161</sup> *Id.*

<sup>162</sup> *Id.* at pp. 4.

<sup>163</sup> *Id.* at pp. 2.

<sup>164</sup> *Id.*, section 1.3, lines 150-51.

<sup>165</sup> *Id.*, section 1.2.1, lines 73-76. As outlined above in Section 1.2, even this June 30, 2014 deadline is probably overly optimistic.

Third, and along the same lines, requiring property owners to have owned land in the impact census block by July 9, 2009 to avail themselves of this policy<sup>166</sup> 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 at least five 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.

Fourth, the FEIS still lacks any means of ensuring this policy is adequately promulgated such that impact parties can take advantage of it. As noted in NHCA DEIS comments, and as continues in the FEIS, this proposal puts the onus on property owners to fish a mitigation plan out of a thousand plus page document and then “apply for service.”<sup>167</sup> The FEIS states “it is likely that, should a permit be granted for the project as proposed, USACE will condition the permit to assure the Water and Sewer Extension Policy is equitably administered.”<sup>168</sup> Such conditional, equivocal, and vague non-promises are insufficient. The FEIS should be modified such that an unconditional and unequivocal means of informing the public of this mitigation proposal is described in detail.

Finally, the FEIS fails to clarify that this proposed mitigation plan is not the something for nothing it advertises. For example, the proposal only defers “payment of acreage fees and capacity fees... until” the owner changes the use of the land.<sup>169</sup> In addition, participating landowners will have to agree to permit the Partners to acquire easements on their land.<sup>170</sup> Most importantly, the FEIS continues to disingenuously claim that “under this proposed policy, the Town Council of Apex will not require annexation as a condition for providing water and sewer service.”<sup>171</sup> Yet the *Site 14 Water and Sewer Extension Policy* plainly contradicts this assertion that each participating property owner must “agree not to object to annexation of a particular property initiated by the Town of Apex after January 1, 2025, or at an earlier date in the event a changed condition at a participating property has occurred first.”<sup>172</sup> The policy is clear: annexation is not an immediate requirement for those participating in the mitigation plan, but, after January 1, 2025, all bets are off. Taking these requirements into account makes clear that the meager benefits of the mitigation plan require a property owner to give away a great deal of authority over how he or she will manage his or her land.

At present, the mitigation plan remains deficient. First, the FEIS should own up to the fact that the water and sewer policy for census block 534.03-1053 is a mitigation plan. It should then put forth a detailed and fair policy that will permit all residents to participate if they so choose. It must also weigh the trade-offs required for a landowner to participate in the mitigation plan.

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<sup>166</sup> *Id.*, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 2.

<sup>167</sup> *Id.*

<sup>168</sup> *Id.*, Appendix A-12b, Response III.124.

<sup>169</sup> *Id.*, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 6.

<sup>170</sup> *Id.* at pp. 5.

<sup>171</sup> *Id.*, Appendix H, *Western Wake Regional Wastewater Management Facilities Environmental Justice Analysis* at pp. 47.

<sup>172</sup> *Id.*, Appendix H, Attachment D, *Site 14 Water and Sewer Extension Policy*, pp. 6.

### **Section 3.1.2.: New Hill Historic District**

In response to the DEIS's cursory examination of proposed Site 14's impact on the New Hill Historic District, the NHCA asked that the following questions be tackled in subsequent environmental assessments:

- Would the WWRWF be visible from the New Hill Historic District?
- Could an individual smell the WWRWF in the New Hill Historic District?
- What would be the highest, lowest, and mean noise decibel levels heard in the New Hill Historic District? How often would the highest 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?

Unfortunately, the FEIS offers little in the way of substantive additions addressing the final four questions listed above. Instead of frankly analyzing these impacts wrought by placing a sewage treatment plant directly adjacent to a historic district, the FEIS continues to rely upon boilerplate generalities about odor, noise, light spill, and traffic impacts on the Historic District.

In regards to the visual impact of the WWRWF on the New Hill Historic District, the FEIS does contain information not contained in the DEIS, namely, an answer to the above question. Specifically, the FEIS states "the proposed WRF should not be visible from the New Hill Historic District when viewed from ground level."<sup>173</sup> It then subsequently is more definitive, stating that "standing at ground level, the WRF will not be visible from the historic district."<sup>174</sup> However, these assertions are problematic for numerous reasons. First, is it unlikely the sewage treatment plant will be visible from ground level, or is it definitively not going to be visible? Second, the former assertion is inexplicably not a definitive assertion. Either the plant will be visible from the Historic District or it will not be visible. The FEIS's use of the phrase "should not be visible" calls into question the reliability of this contention and the information supporting it. Third, the qualified nature of the negative response would seem to indicate the sewage treatment plant could be viewed from above ground level. The level at which the sewage treatment plant will be visible should be stated, or, if the USACE lacks this information, the basis for this should be made explicit. Finally, in discussing the supposed lack of visibility, the FEIS notes "a 200 foot mostly forested buffer will lie between the historic district and the WRF."<sup>175</sup> It then acknowledges there is a gap in the buffer necessitating restoration.<sup>176</sup> Left

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<sup>173</sup> *Id.*, section 4.11, at lines 1496-98.

<sup>174</sup> *Id.*, Appendix A-12b, Response 86.

<sup>175</sup> *Id.*

unexplained is how large this gap is, whether it will make the sewage treatment plant visible from the historic district, and how long this restoration project will take.

Most importantly, a closer examination reveals this assertion is conclusory, and lacking the requisite support. As the DEIS also did, the FEIS notes no buildings on Site 14 will be higher than 36 feet and also that raised railway bed between the plant and the Historic District will serve to obscure the facility.<sup>177</sup> While this information is potentially on point, the FEIS fails to complete the circle. How high will the tallest building on site be? How high is the elevated railroad bed? Without this sort of evidence, the FEIS's position about the lack of visual impact is nothing more than an unsupported conclusion.

In regards to the other questions pertaining to smell, noise, light spill, and traffic, there is no new, substantive information in the FEIS addressing the previously identified deficiencies in the DEIS. In a tortured response, the FEIS finally acknowledges an individual will smell the sewage treatment plant in the historic district.<sup>178</sup> Elsewhere, the FEIS completely foregoes any such lip-service, refusing to provide meaningful data about noise impacts suggested by NHCA DEIS comments such as a noise gradient projection, highest, lowest, and mean noise decibel levels, how often the highest levels would be heard, and what portions of the historic district would be exposed to noise from the plant, instead relying upon boilerplate.<sup>179</sup> The same is true of the consideration of light spill and traffic issues,<sup>180</sup> though the consideration of both issues makes clear there will be light spill and increased traffic in the historic district.<sup>181</sup>

More broadly, the DEIS does not even discuss how seeing, smelling, and hearing a sewage treatment plant would impact a historic district. Are a sewage treatment facility and an adjacent historic district compatible? Have other sewage treatment facilities been built next door to

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<sup>176</sup> *Id.*

<sup>177</sup> *Id.* at lines 1492-96.

<sup>178</sup> FEIS, Appendix A-12b, Response 84. In the course of this response, the FEIS also speaks of "incorporating the lessons learned from operating the South Cary plant in their design." Residents' experiences with the South Cary plant, presented in greater detail in section 3.1.1 above, demonstrate that the incorporation of these lessons is cold comfort indeed.

<sup>179</sup> *Id.* at Response 88.

<sup>180</sup> As also noted in the DEIS, the FEIS continues to state that "all traffic into, and out of, the WRF will be directed away from the New Hill Historic District and the site will be accessed by a roadway to the Shearon Harris Road. FEIS, section 4.13.2.1, lines 1655-56. The FEIS still does not make clear whether this means of accessing the WRF would require new road construction or how mandating this sole source of entry to the WRF site would be enforced. In fact, the only new piece of information in the FEIS on this point, is the conditional and not particularly reassuring statement that "the Partners could terminate contracts if preferred [traffic] routes are not followed" by contractors. *Id.* at lines 1658-59. Furthermore, just a few lines later the FEIS continues to state "during plant operations, there would be approximately 25-35 employees on the site each day that would likely travel along Old US 1," the road passing straight through the New Hill Historic District. *Id.* at 1660-61. The question remains the same: is traffic being exclusively directed to Shearon Harris Road, or Old US 1? Such contradictions must be resolved, and the requested details provided before the FEIS can be considered complete.

<sup>181</sup> *Id.* at Responses 89-90.

historic districts? If so, how was the historic district impacted? Though these questions were also presented by NHCA in its DEIS comments,<sup>182</sup> they remain unanswered in the FEIS.<sup>183</sup>

In June 2005, Cary Town Councilwoman Jennifer Robinson acknowledged that “historical or social issues were not considered when the site selection process was undertaken” by the Partners.<sup>184</sup> More than four and a half years later this sad commentary remains true, a tragedy compounded by the fact that “all other project alternatives will not impact historic properties.”<sup>185</sup>

### **Section 3.1.3: Noise**

In its treatment of noise associated with the proposed sewage treatment plant, the FEIS promises that “the Project Partners would execute the construction... in full compliance with Apex noise standards which allow a maximum noise level of 60dBA at the property line during daytime hours (7:00 AM to 10:00 PM) and a maximum noise level of 55dBA during nighttime hours.”<sup>186</sup> The DEIS goes on to predict that “the noise heard at the closest existing residence” in the case of Site 14 “should be 49 to 55dBA.”<sup>187</sup> However, as was the case with the DEIS, pushing further into the FEIS reveals the deceptive nature of those assertions.

First, the FEIS makes clear there will be frequent variations above the norms outlined above. The Apex noise ordinances would be waived during construction, meaning New Hill residents could be exposed to larger noise impacts from 7:00AM to 10:00PM as the plant is built.<sup>188</sup> In addition, the FEIS acknowledges that the use of power generators would be an additional source of noise from the sewage treatment plant.<sup>189</sup> “The combination of testing and peak-shaving would occur a total of 7 to 8 times per month,” necessitating the use of generators on each occasion.<sup>190</sup> Furthermore, the FEIS notes “there is no way to predict how often power outages will occur,” failing to even provide an average number of outages at other plants operated by the Partners.<sup>191</sup> During such power outages, “there would be moderate impacts to properties in close proximity to the... WRF,” according to the FEIS.<sup>192</sup> Regardless, based upon the information provided, it is apparent generators will run frequently at the sewage treatment plant.

Second, and as noted in the paragraph above, the FEIS continues to lack information necessary for the public to fully weigh the noise impacts of the sewage treatment plant. As was noted in the NHCA response to the DEIS, the FEIS acknowledges construction techniques, and associated

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<sup>182</sup> *Id.* at Comment 91a.

<sup>183</sup> *Id.* at Response 91.

<sup>184</sup> *Jennifer Robison email*, June 26, 2005, available as Appendix O attached to NHCA DEIS comments.

<sup>185</sup> FEIS, section 2.8.2, lines 860-61.

<sup>186</sup> *Id.*, section 4.9.1, lines 1294-98.

<sup>187</sup> *Id.* at lines 1358-59.

<sup>188</sup> *Id.* at lines 1299-1301.

<sup>189</sup> *Id.* at lines 1328-29.

<sup>190</sup> *Id.*; *Id.* at lines 1338-39.

<sup>191</sup> *Id.*, Appendix A-12b, Response III.55.

<sup>192</sup> *Id.*, section 4.9.1, lines 1347-49.

noise suppression efforts, have not yet been defined.<sup>193</sup> Along the same lines, the FEIS refuses to specify broader noise control techniques to be employed as “the Partners have not finalized the design basis for equipment noise attenuation.”<sup>194</sup> The lack of a final design makes the FEIS’s failure to provide noise gradient maps<sup>195</sup> or directly respond to the NHCA questioning about the point from which noise impacts are being measured<sup>196</sup> unsurprising. Instead of rigorous analysis of noise impacts in the specific context of Site 14, the FEIS continues to lean upon boilerplate such as Table 4-11, which summarizes the “Peak Construction Noise Levels Near a Typical Construction.”<sup>197</sup> While superficially re-assuring, this table tells New Hill residents nothing about the noise impacts to be visited upon its community, to say nothing of unanswered questions in regards to how noise emissions will be monitored or how breaches of the much discussed Apex town ordinance will be managed.

Third, the FEIS continues to compare noise impacts to suburban settings. In its discussion of noise during construction, the FEIS argues the noise impact at the nearest residence will be “comparable to a typical suburban noise level of 55dBA.”<sup>198</sup> As noted in the NHCA letter responding to the DEIS, New Hill is not a typical suburban area, nor does it have a typical suburban noise level. Moreover, some of its residents especially appreciate this character of the community, having chosen to live in New Hill for precisely such reasons. Comparing New Hill to the suburbs is comparing apples to oranges. The staggering thing is that in portions the FEIS acknowledges the inappropriate nature of this comparison, promising “the FEIS will be modified to add appropriate noise comparisons for the New Hill area.”<sup>199</sup> And, while other sections do note that the “daytime summer noise levels in a coniferous forest are typically 35-45dBA,”<sup>200</sup> the section directly addressing noise impacts around Site 14 still includes the irrelevant suburban comparison. All of this begs the question: if a tree fell in said coniferous forest and NHCA reported it, would the USACE acknowledge it?

Finally, the South Cary WRF is an instructive case study on the impacts of noise from a sewage treatment plant. The FEIS highlights the following efforts to curb noise impacts:

- the installation of “a noise dampening shroud” and redirection of “blower exhaust”
- “building a sound absorbing wall around the positive displacement blowers at the digesters”
- “adding sound dampening panels at ventilation openings inside the blower building”
- “changing the operations cycle for the filter backwash so that it does not occur late in the evening”

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<sup>193</sup> *Id.*, section 4.9.1, lines 1293-94.

<sup>194</sup> *Id.*, Appendix A-12b, Response III.54.

<sup>195</sup> *Id.* at Response III.60.

<sup>196</sup> *Id.* at Response III.62.

<sup>197</sup> *Id.*, section 4.9.1, Table 4-11.

<sup>198</sup> *Id.*, section 4.9.2.1, lines 1357-59.

<sup>199</sup> *Id.*, Appendix A-12b, Response 66.

<sup>200</sup> *Id.*, section 3.9, lines 1181-82. It is also worth noting that there is a difference between the sounds heard on a typical summer day in a coniferous forest and the noise of a sewage treatment plant.

- “directing noise inward on the site and actively working to prevent noise from encroaching outward into the community”
- “installing temporary walls, covers, etc., to mitigate offsite noise until permanent solutions are implemented.”<sup>201</sup>

And, while the FEIS highlights the Partners’ mitigation efforts as a model, when placed in context this list presents many disturbing issues. First, why were these efforts not employed from the beginning at the South Cary WRF? Because the Partners did not adequately plan for noise mitigation or because they had unanticipated noise issues? Either response raises the specter that the FEIS’s commentary on noise impacts in New Hill may prove far removed from reality encountered once Site 14 cranks up. Second, emails from South Cary residents make clear that they suffered large noise impacts while the Partners put mitigation efforts in place. On May 6, 2009, South Cary WRF citizen complaint point person, Bill Goldman, noted “the noise level” from the plant “seems quite loud,” begging Cary officials to “please realize that we have lived with a terrible situation for years now and we do not desire to have another summer ruined due mainly to the odor and noise emanating from the plant.”<sup>202</sup> Finally, even when mitigation efforts moved forward, there were ongoing problems.<sup>203</sup> Again, quoting Mr. Goldman, “Upon walking the dog a little while ago I was amazed that there was such a loud noise coming from the plant. Not only was it the blower noise but it was a loud whining noise which could be easily heard at my front door.”<sup>204</sup> Unsurprisingly, such testimonials are not included in the FEIS. What the USACE cites as a model effort at noise mitigation leads residents in the vicinity of the South Cary WRF to plead, “we need your help as two years of working with the Town has not generated the needed improvements to improve our quality of life.”<sup>205</sup>

### **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 FEIS evaluates “whether a new WRF would result in decreased property values.”<sup>206</sup> (This is not merely a public concern. In its comments on the DEIS, the EPA stated its continuing “concerns that construction of the large WWRWF at Site 14 will adversely impact property values in the area of the historic EJ community.”<sup>207</sup>) “After reviewing “Wake County Revenue Department Data,” the FEIS concludes “impacts on property values are negligible and may be beneficial.”<sup>208</sup> However, a review of evidence demonstrates this conclusion is, at best, speculation.

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<sup>201</sup> *Id.*, Appendix A-12b, Response 65.

<sup>202</sup> *South Cary WRF Emails*, December 21, 2007-July 15, 2009, Attached as Appendix C.

<sup>203</sup> *Id.*, May 31, 2009 email from Bill Goldman.

<sup>204</sup> *Id.*, June 8, 2009 email from Bill Goldman.

<sup>205</sup> *Id.*

<sup>206</sup> FEIS, section 4.14.1.2, lines 1722-23.

<sup>207</sup> *Id.*, Appendix A-12b, comment 362.

<sup>208</sup> *Id.*, section 4.14.1.2, lines 1749-50. While making broad comments on the impacts of sewage treatment plants on property values in the course of its discussion of proposed Site 14, the FEIS grants this data “does not necessarily predict growth or values of properties around the WWRWF.” *Id.*, Appendix A-12b, Response 97. This is a quintessential effort to have it both ways. The USACE originally promulgates comforting figures on the impact of

The focal point of the FEIS analysis is three WRFs and WWTPs currently managed by the Partners: North Cary WRF, South Cary WRF, and Utley Creek WWTP.<sup>209</sup> While referenced, the Partner managed Middle Creek WWTP is not included in the analysis as “no residential properties are located within 0.5 miles of this WWTP.”<sup>210</sup> In explaining the lack of development around Middle Creek WWTP, the FEIS notes that “most of the land within 0.5 miles of the Middle Creek WWTP is not zoned for residential use” and further refuses to “speculate about the reasons for development patterns of a particular area.”<sup>211</sup> While surely an ironic response given the rampant, unfounded speculation larding the FEIS’s consideration of property values, the total lack of development around Middle Creek WWTP does not appear compatible with a conclusion that “impacts on property values” from sewage treatment plants “are negligible and may be beneficial.”<sup>212</sup>

With the remaining three facilities, the FEIS 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.<sup>213</sup> The FEIS 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.”<sup>214</sup> In other words, the FEIS does not include the only direct means of weighing the property value impact of construction of a sewage treatment plant on homes in Wake County. As the EPA noted in its comments, “the information in the EJ analysis of property values in Wake County related to their proximity to wastewater treatment facilities is of limited value, because a comparison of individual home values (based on resale and/or assessed value) prior to and after wastewater treatment facility construction was not conducted.”<sup>215</sup> Without such data points, there is no basis for the FEIS’s specious conclusion that property value impacts would be neutral or positive.

Even if these shortcomings are ignored, the data included in this section cannot support the conclusion reached by the FEIS. Focusing on the three facilities analyzed, the FEIS 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.”<sup>216</sup> 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.”<sup>217</sup> Upon examination, there is much less to these figures than meets the eye, a fact conveniently hidden in the FEIS analysis.

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sewage treatment plants in the context of its DEIS discussion of Site 14, and now that it has been called on this questionable data, it acknowledges they have predictive capacity. Why then do the figures remain in the FEIS?

<sup>209</sup> *Id.* at lines 1727-29.

<sup>210</sup> *Id.* at lines 1730-31.

<sup>211</sup> *Id.*, Appendix A-12b, Response III.98

<sup>212</sup> *Id.*, section 4.14.1.2, lines 1749-50.

<sup>213</sup> *Id.* at Table 4-12.

<sup>214</sup> *Id.* at lines 1733-34.

<sup>215</sup> *Id.*, Appendix A-12b, Comment 362.

<sup>216</sup> *Id.* at lines 1737-40.

<sup>217</sup> *Id.* at lines 1745-47.

In regards to the assertion that “the rates of development around these facilities have exceeded the rates of development in southwest Wake County,”<sup>218</sup> there are a number of problems with drawing any causal conclusions from it. 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 of the facility; there are now 156 properties within a half mile radius of the facility.<sup>219</sup> Prior to the 1988 construction of the South Cary WRF, there were 34 properties within a half mile of the facility; there are now 538 properties within a half mile of the facility.<sup>220</sup> Prior to the 1990 construction of the Utley Creek WWTP, there were 10 properties developed within a half mile of the facility; there are now 322 properties within a half mile of the WWTP.<sup>221</sup> In short, while the percentage increase in the number of properties over the last 20 years is impressive, the numerical total is much less impressive and reveals the percentage increase relates to the fact that these areas were almost entirely unpopulated in the mid-1980s. This percentage increase becomes even less impressive when you consider that each of these areas are still much less developed than the average half mile-radius in Cary,<sup>222</sup> a much more telling statistic not referenced by the FEIS.

Second, the assertion that “the rates of development around these facilities have exceeded the rates of development in southwest Wake County,”<sup>223</sup> is 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.<sup>224</sup> 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. A more telling statistic would be a comparison of growth around these facilities to growth in the rest of Cary, a detail omitted from FEIS analysis.

Finally, the “southwest Wake County” to which the area around these facilities is being compared is never defined.<sup>225</sup> Accordingly, it is impossible for the public to determine the point of reference used by the FEIS, another fact making the development rate comparison worthless.

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<sup>218</sup> *Id.* at lines 1738-40.

<sup>219</sup> *Id.* at Table 4-12.

<sup>220</sup> *Id.*

<sup>221</sup> *Id.*

<sup>222</sup> 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](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, an average Cary half mile hosts 819 dwellings, far more than found in a half mile radius of these three sewage treatment facilities.

<sup>223</sup> FEIS, section 4.14.1.2, lines 1738-40.

<sup>224</sup> *New Orleans Population Continues Katrina Recovery; Houston Leads in Numerical Growth*, U.S. Census Bureau News, 2008-07-10.

<sup>225</sup> The FEIS states that this designation comes from Wake County, but still does not define its parameters. FEIS, Appendix A-12b, Response 100.

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,”<sup>226</sup> there are again a number of problems with drawing any causal conclusions from this data. 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.<sup>227</sup> 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.”<sup>228</sup> 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 FEIS “because too many other variables such as development density and the availability of infrastructure and commercial services affect house prices,” according to the USACE.<sup>229</sup> Interestingly, such nuances do not dissuade the FEIS from concluding broadly “impacts on property values” from sewage treatment plants “are negligible and may be beneficial.”<sup>230</sup>

Third, the data upon which these property values are based were current as of April 30, 2008.<sup>231</sup> 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.<sup>232</sup> Furthermore, Cary’s rapid growth certainly fueled an increase in home values and prices across the board prior to the end of 2008.<sup>233</sup> The Town of Cary acknowledges this reality, noting “sales [of properties around the South Cary WRF] have been very slow” since 2008.<sup>234</sup> 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].”<sup>235</sup> Accordingly, not only are these figures used in the FEIS dated, but also they indicate the increase in property values related to broader

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<sup>226</sup> *Id.*, section 4.14.1.2, lines 1741-43.

<sup>227</sup> *Id.* at Table 4-12.

<sup>228</sup> *Id.* at 1743-44.

<sup>229</sup> *Id.*, Appendix A-12B, response III.100.

<sup>230</sup> *Id.*, section 4.14.1.2, lines 1749-50.

<sup>231</sup> *Id.* at Table 4-12.

<sup>232</sup> *Triangle Home Sales, Prices Fall*, available at <http://www.wral.com/business/story/4144158>.

<sup>233</sup> *New Orleans Population Continues Katrina Recovery; Houston Leads in Numerical Growth*, U.S. Census Bureau News, 2008-07-10.

<sup>234</sup> FEIS at Appendix H, Attachment C, *Letter from Cary re: Odor*, pp. 6. There is even anecdotal evidence that the South Cary WRF has resulted in nearby residents being “unable to get interested prospective buyers because the word has gotten around about the nightly odors emissions.” December 21, 2007 email from Bill Goldman, attached as Appendix C.

<sup>235</sup> *Id.* at pp. 10.

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 FEIS acknowledges the homes and land in this vicinity “have an average assessed value below that of the average assessed value in southwest Wake County.”<sup>236</sup> In explaining this inconvenient fact, the FEIS states “subdivisions built around this facility are composed of smaller and lower priced homes than are typical in southwest Wake County.”<sup>237</sup> 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 FEIS would need to include data comparing house prices at the three facilities in questions to comparable houses elsewhere in Cary, but not in the vicinity of sewage treatment facilities. Such information is not included in the FEIS and thus there is no meaningful assessment of the impact of such facilities on property values.

In short, the data presented in the FEIS in no way supports its conclusion that “impacts on property values are negligible and may be beneficial.”<sup>238</sup> It is difficult to draw such broad conclusions based on only three examples in any context,<sup>239</sup> but, even considering this, the effort made by the FEIS is insufficient. As was previously suggested in NHCA comments on the DEIS, the FEIS 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 FEIS incomplete.

On many broader notes, the property value analysis included in the FEIS completely misses the point. First, as noted above, the FEIS 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.”<sup>240</sup> In other words, the FEIS does not include the only data which can definitively state the impact the four sewage treatment plants have on individual home values.

Common sense would indicate that sewage treatment plants have a negative impact on property values, which is surely the experience of those residing near the South Cary WRF. Almost two years of emails between local residents and the Town of Cary present a picture of a community

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<sup>236</sup> *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.

<sup>237</sup> *Id.* at lines 1628-29.

<sup>238</sup> *Id.* at lines 1630-31.

<sup>239</sup> The FEIS could get around the small sample size by including nationwide studies on the impact of sewage treatment facilities on property values.

<sup>240</sup> *Id.* at 1614-15.

repeatedly disturbed by odor and noise associated with this sewage treatment plant and then incapable of fleeing because their houses would not sell.<sup>241</sup> With palpable desperation, frustration, and sarcasm, a community resident lamented in December 2007 that “there have been a few residents that now have put their homes up for sale (for whatever reason) and they have been unable to get interested prospective buyers because the word has gotten around about the nightly odor emissions.”<sup>242</sup> In a June 2009 email the message remained the same: “many of us that purchased homes here are now faced with the fact that we cannot expect to get our money out of our home purchase. The word is out in the community that there are ‘problems’ here with the plant and our home values deteriorated due to that.”<sup>243</sup> These striking first-person testimonials shattered the illusion promoted by misleading statistics in the FEIS that the impact from a sewage treatment plant “on property values are negligible and may be beneficial.”<sup>244</sup>

Second, the FEIS 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.”<sup>245</sup> Until the FEIS 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 FEIS 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.<sup>246</sup> Included in this Progress Energy proposal is a table listing “Summary of Water Use at Proposed Facilities.”<sup>247</sup> This table notes that the “total or maximum lake makeup flow

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<sup>241</sup> *South Cary WRF Emails*, December 21, 2007-July 15, 2009, Attached as Appendix C.

<sup>242</sup> *Id.*, December 21, 2007 email from Bill Goldman.

<sup>243</sup> *Id.*, June 15, 2009 email from Bill Goldman.

<sup>244</sup> FEIS, section 4.14.1.2, lines 1749-50.

<sup>245</sup> Affidavit of M. Denise Adams, available as Appendix R attached to NHCA DEIS comments. The affidavit 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.*

<sup>246</sup> Shearon Harris Nuclear Site, Units 2 and 3 Application, available at <http://www.nrc.gov/reactors/new-reactors/col/harris.html>.

<sup>247</sup> 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](http://adamswebsearch2.nrc.gov/nrcws/nrcdoccontent.aspx?Library=PU_ADAMS^PBNTAD01&LogonID=9a298a3f9431113772e8c26b21cc1121&DocID=080640095).

withdrawal from Cape Fear River” could be up to “60,000 gpm [gallons per minute].”<sup>248</sup> 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.”<sup>249</sup> Such a reduction in flow would occur upstream of the Partners’ proposed Cape Fear River discharge point for the WWRWF.<sup>250</sup>

Despite this proposed withdrawal, its potential impacts, the proposed Cape Fear River below Buckhorn Dam discharge point, and the flagging of this issue in the NHCA DEIS comments, the FEIS 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 considered all relevant environmental impacts. Given its current failure to analyze this proposed Progress Energy withdrawal from the Cape Fear, the FEIS is incomplete.

### **Section 3.2.2.: Impacts of Raven Rock State Park**

After evaluating “several alternative locations to discharge wastewater” from the sewage treatment facility,<sup>251</sup> the FEIS proposes a discharge location on the Cape Fear River below Buckhorn Dam.<sup>252</sup> The Cape Fear River discharge point is located in extreme southwestern Lee County, near the border with Harnett County,<sup>253</sup> and would receive a 30 million gallons daily discharge from the sewage treatment plant.<sup>254</sup> This point was chosen over Harris Lake as the latter did “not meet the purpose and need for the Western Wake WRF discharge” because of delays associated with receiving IBT regulatory approval for such a discharge.<sup>255</sup>

Partially rectifying its complete omission from discussion in the DEIS, the FEIS acknowledges “the proposed discharge point is 4.8 miles upstream of Raven Rock State Park. Raven Rock State Park is used for fishing and canoeing.”<sup>256</sup>

This cursory description does not do justice to Raven Rock State Park. Located in Harnett County on the Cape Fear River, 9 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

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<sup>248</sup> *Id.*

<sup>249</sup> *Id.* at pp. 5-30.

<sup>250</sup> *Id.*

<sup>251</sup> FEIS, section 2.4, line 312.

<sup>252</sup> *Id.*, section 2.4.1, lines 315-317.

<sup>253</sup> *Id.*, figure 2-6.

<sup>254</sup> *Id.*, Appendix B-6.

<sup>255</sup> *Id.*, section 2.4.2, lines 341-45.

<sup>256</sup> *Id.*, section 3.6.1, lines 943-45.

crystalline rock that gives the park its name.”<sup>257</sup> Raven Rock is “perhaps the most readily recognized... of all the landmarks on the Cape Fiver River.”<sup>258</sup> The park is also “on the ‘fall line’, where the river literally falls and produces the best rapids in the eastern piedmont.”<sup>259</sup> In addition, Raven Rock Park includes an area known as the “Fish Traps,” deep holes that retain water during the frequent low flow periods of the river.”<sup>260</sup> Little wonder then that Raven Rock has been “a popular tourist destination for nearly 150 years,” and its status as a state park since 1970.<sup>261</sup>

While its description of the park leaves much to be desired, the central problem is that the FEIS fails to rigorously consider the discharge’s impact on public enjoyment of the park or biotic life protected in the state park system. The FEIS comfortingly states that

the effluent limits that would be included in the NPDES permit will protect fishable and swimmable uses within the Cape Fear River and recreation in Raven Rock State Park will not be impacted. None of the project alternatives would impact land use within the park and thus there would not be impacts to the public enjoyment of the park or its plant and animal populations.<sup>262</sup>

However, there is no explanation of the basis for these conclusions. In fact, the words “Raven Rock State Park” do not even appear in the NCDWQ speculative limit letter.<sup>263</sup> The FEIS is deficient and incomplete until the impact on Raven Rock State Park from the discharge of 30 MGD from the sewage treatment plant below the Buckhorn Dam on the Cape Fear River is fully analyzed.

### **Section 3.3: Impacts Both Inside and Outside of New Hill**

#### **Section 3.3.1: Sludge Management**

In regards to sludge management, the FEIS indicates “two options are being evaluated for biosolids.”<sup>264</sup> According to the FEIS, “the first option consists of sludge thickening through polymer feed and gravity belt thickeners. The thickened waste activated sludge would be dewatered through a centrifuge and trucked offsite to a previously permitted location.”<sup>265</sup> In comparison, “the second option consists of sludge thickening, dewatering via centrifuges, biosolids heat drying, off-site biosolids loading (liquid and solid), filtrate and centrate pumping,

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<sup>257</sup> Raven Rock State Park website, located at

<http://www.northcarolinaoutdoors.com/places/piedmont/ravenrock.html>.

<sup>258</sup> John Hairr, *From Mermaid’s Point to Raccoon Falls: A Guide to the Upper Cape Fear*, pp. 49.

<sup>259</sup> Raven Rock State Park website.

<sup>260</sup> *Id.*

<sup>261</sup> Hairr, *A Guide to the Upper Cape Fear*, pp. 52.

<sup>262</sup> FEIS, section 4.6.1, lines 979-84.

<sup>263</sup> *Id.*, section 9, Appendix B6.

<sup>264</sup> *Id.* at section 2.1, lines 44-45.

<sup>265</sup> *Id.* at lines 45-47.

and scum digestion.”<sup>266</sup> In laymen’s terms, “the biosolids will either be incinerated onsite... or they will be trucked offsite outside the study area.”<sup>267</sup> There are procedural and substantive problems with both alternatives.

In regards to the procedural shortcomings, the FEIS does not select which alternative will be employed. As was noted in NHCA comments on the DEIS, this is certainly not a best practice, making it the outlines of the project less apparent to the public and complicating the public comment process. Furthermore, the FEIS does not make clear why the proposed method of sludge management remains unknown at this late date, raising the specter that confusion is being sown to obscure a potentially controversial practice.

This motivation is given further credence given that the “biosolids” in question “can contain a wide range of toxic substances and chemical compounds.”<sup>268</sup> Though euphemistically titled “biosolids” by the DEIS, sewage sludge is not natural material.<sup>269</sup> 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.<sup>270</sup> 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.”<sup>271</sup> In the case of the incineration option, individuals downwind of the burned sewage sludge would be exposed to carbon monoxide, nitrogen oxides, volatile organic compounds, hydrogen sulfide, ammonia, particulate matter, sulfur dioxide, and heavy metals.<sup>272</sup>

If the land application option is selected the FEIS promises it “will be trucked offsite outside the study area and disposed of at a previously permitted facility and not impact the groundwater in the surrounding community.”<sup>273</sup> Unfortunately, this issue cannot be willed away by trucking it offsite. As was noted in NHCA comments on the DEIS, “groundwater near a sewage sludge application site in Rutherford County was contaminated with nitrates at levels greater than the

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<sup>266</sup> *Id.* at lines 50-53.

<sup>267</sup> *Id.*, section 4.1.2, lines 437-40.

<sup>268</sup> *Id.* at line 437.

<sup>269</sup> Blue Ridge Environmental Defense League, *Siler City WWTP, NPDES permit No. NC0026441 comments*, April 18, 2008, pp. 3, available as Appendix S attached to NHCA DEIS comments.

<sup>270</sup> *Id.* at pp. 3-4.

<sup>271</sup> Kinney et al, *Survey of Organic Wastewater Contaminants in Biosolids Destined for Land Application*, Environmental Science Technology, volume 40, pp. 7207-15 (2006).

<sup>272</sup> FEIS, section 4.8.3, lines 1188-95.

<sup>273</sup> *Id.*, section 4.1.2, lines 439-40. As was the case with the DEIS, the FEIS also does not identify where the sludge will be applied to, undermining the public’s ability to comment on the impacts of the sewage treatment plant.

EPS limit of 10 ppm suggesting that a nearby sludge field spread was responsible for contaminating groundwater and residential private wells.”<sup>274</sup> 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.”<sup>275</sup> Nitrates are potentially dangerous to newborns; in particular, nitrites in the digestive tracts of newborns can lead to the disease methemoglobinemia.<sup>276</sup> In addition, livestock have aborted fetuses due to drinking water containing high levels of nitrates.<sup>277</sup> Despite the prior identification of these issues, these serious problems associated with land application still receive short shrift in the FEIS.

The other alternative is considered, incinerating sewage sludge on site,<sup>278</sup> makes even less sense. As outlined above, incineration would expose parties downwind to “toxic substances and chemical compounds.”<sup>279</sup> In fact, given the low BTU content of sewage sludge, the total pollutants released may be greater than when oil or gas is used as a heat source.<sup>280</sup> These residues and pollutants would then ride the prevailing wind over the population centers of New Hill and the Partners’ communities, raising the inconvenient reality of the individuals breathing the residue from their own sewage.<sup>281</sup> Furthermore, while characterized as “a thermal drying facility similar to our South Cary WRF,” the truth is that the technology proposed is new and only used by one other municipality, the 15,000 person town of Buffalo, Minnesota.<sup>282</sup> In short, this alternative proposes using a new, untested technology to dispose of sewage sludge which would then end up in the lungs of those living downwind.

The current treatment of sewage sludge by the FEIS remains inadequate. First, the FEIS should identify the method the sewage treatment plant will use to dispose of sewage sludge. The FEIS must then fully weigh the consequence of the alternative selected. This would require a full discussion and analysis of the impacts from ground application. It would also require a clear, honest and frank discussion of the incineration methodology to be employed, its track record, the potential consequence if the technology malfunctions, and the consequences if the technology operates as envisioned. Without such details, the public can neither fully participate in this

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<sup>274</sup> *Siler City WWTP*, pp. 5.

<sup>275</sup> *Id.*

<sup>276</sup> 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>.

<sup>277</sup> 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>.

<sup>278</sup> FEIS, section 4.1.2, lines 437-40.

<sup>279</sup> *Id.* at line 437. The FEIS acknowledges that the precise “emissions from the heat drying system are dependent on the model of the dryer selected” for this incineration process. This admission reveals the dryer to be used in the incineration process has not yet been selected, making the emissions unpredictable, another gap in the knowledge needed for the public to effectively comment on the FEIS. For additional information on the dangers of waste incineration that are given only the most cursory treatment in the FEIS, please view *Waste Gasification: Impacts on the Environment and Public Health*, published in February 2009 by the Blue Ridge Environment Defense League and attached as Appendix D to this document.

<sup>280</sup> Kent Misegades letter to Henry Wicker, January 27, 2010.

<sup>281</sup> *New Hill sewage plant could include Incineration, plume over Cary/Apex*, January 9, 2010, available at: <http://carywatch.com/biosolids.html>.

<sup>282</sup> Misegades letter.

process, nor have great confidence that all dangers and contingencies associated with WWRWF are being planned for.

### **Section 3.3.2: Wetlands Impact**

The FEIS proclaims that the wetland impacts for the proposed layout at Site 14, as well as the layouts at the alternative sites, are negligible.<sup>283</sup> However, comparing the proposed layout for Site 14<sup>284</sup> with the projected layouts for the alternative sites<sup>285</sup> casts much doubt on such a conclusion. While the FEIS admits that the proposed Project WRF Site for Site 14 has “been developed to avoid impacts to wetland areas,”<sup>286</sup> inspection of the design, especially compared to the design of the alternatives, reveals that the FEIS severely understates that point -- and in so doing, obscures possible adverse impacts on wetlands at Site 14.

Specifically, the Site 14 layout depicts an elongated facility design with appendages designed to maneuver around wetlands within the Site's buffer.<sup>287</sup> This stands in distinct contrast to the compact, contained units proposed for other sites.<sup>288</sup> Moreover, much of the supposed “permanent disturbance” boundaries for Site 14 run right up to or parallel to significant stretches of wetlands, again something that is rare or non-existent at the other sites.<sup>289</sup> Notably, this includes the almost complete enclosure of jurisdictional wetlands by the proposed facility, a design that certainly constructively would change the character of the wetlands in a permanent way.<sup>290</sup>

Given the realities of construction and plant operation, and the disturbances associated with each, this profoundly and permanently threatens the wetlands on Site 14 in a way the wetlands at the other sites are not threatened. Unfortunately, this is not reflected by the FEIS, meaning its own documentation does not support a finding of across the board negligible wetland impact.

### **Section 4: Alternatives: Elimination of Harris Lake Alternative from Consideration**

The FEIS highlights four discharge points for sewage treatment effluent considered by the Partners.<sup>291</sup> Two of these points, the Cape Fear River/Haw River above Buckhorn Dam and the New Hope Creek Arm of Jordan Lake below US Highway 64, were rejected due to chlorophyll *a* exceedances.<sup>292</sup> NCDWQ also raised concerns about “unusual variation in dissolved oxygen

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<sup>283</sup> FEIS, section 4.1.4.1, lines 590-91.

<sup>284</sup> *Id.*, Figure 4-1.

<sup>285</sup> *Id.*, Figure 4-2, 4-3, 4-4.

<sup>286</sup> *Id.*, section 4.1.4.2.1, lines 601-02.

<sup>287</sup> *Id.*, Figure 4-1.

<sup>288</sup> *Id.*, Figures 4-2, 4-3, 4-4.

<sup>289</sup> *Id.*, Figures 4-1, 4-2, 4-3, 4-4.

<sup>290</sup> *Id.*, Figure 4-1.

<sup>291</sup> *Id.*, section 2.4.

<sup>292</sup> *Id.*, section 2.4.3.1, lines 362-63; *Id.*, section 2.4.3.2, line 369.

levels behind Buckhorn Dam” in regards to the former option.<sup>293</sup> This left two alternatives: Harris Lake and the Cape Fear River below Buckhorn Dam.

The FEIS begins its synopsis of the Harris Lake discharge by laying out its many benefits: “this option results in shorter effluent line, less pumping, and fewer greenhouse gas emissions from the pumping” as well as “greater flexibility in managing water resources on a regional basis as the water would be stored in the lake.”<sup>294</sup> Yet, by the end of this discussion, it is apparent that Harris Lake too has been eliminated from consideration. Given its promise, why did Harris Lake ultimately not make the cut? Because this discharge would require IBT regulatory approval, delaying the sewage treatment plant by “at least three years,” and thereby imperiling the Partners’ capacity to meet the June 30, 2014 deadline to continue meeting condition 1 of its separate IBT certificate.<sup>295</sup>

Setting aside the issues with this deadline,<sup>296</sup> the reason for this inability to fully consider the Harris Lake discharge by June 30, 2014 merits further consideration. As the FEIS establishes, “the communities in Western Wake Co. identified wastewater treatment capacity as a crucial need in the mid-1990s” and “initiated a regional wastewater planning study in mid-2002.”<sup>297</sup> Yet, despite the identification and study of this issue, the Partners waited until 2008 “to develop a nutrient response model... to determine the ability to assimilate nutrients resulting from a WRF discharge,” an analysis that “is not yet complete.”<sup>298</sup> In short, the Partners did not begin a serious consideration of the Harris Lake discharge until six years after their regional wastewater planning study began, and now they regret to inform the public they will not have time to fully consider this option before the need their sewage treatment plant operational in 2014.

With the elimination of the promising Harris Lake option, effluent will be discharged into the Cape Fear River below Buckhorn Dam.<sup>299</sup> In contrast to their delinquent management of the Harris Lake option, the Partners were a model of efficiency when it came to this option, receiving NCDWQ speculative limits for a discharge on the Cape Fear River below Buckhorn Dam by 2004.<sup>300</sup> As noted above, and unlike the proposed Harris Lake discharge, there are numerous environmental concerns with this discharge point.<sup>301</sup>

The purpose of an environmental impact statement is to thoroughly consider and inform the public of the environmental impacts of a proposed action. The Partners have made a mockery of this requirement in their consideration of discharge alternatives. Of the four alternatives considered, two were environmental non-starters. The third, and most promising, alternative is

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<sup>293</sup> *Id.*, section 2.4.3.1, lines 363.

<sup>294</sup> *Id.*, section 2.4.2, lines 323-326.

<sup>295</sup> *Id.* at lines 341-44.

<sup>296</sup> *See id.* at section 1.2.

<sup>297</sup> *Id.*, Appendix B-3.

<sup>298</sup> *Id.*, section 2.4.2, line 332-335.

<sup>299</sup> *Id.*, section 2.4.1.

<sup>300</sup> *Id.* at lines 320-21.

<sup>301</sup> *See id.* at sections 3.2.1, 3.2.2.

now removed from consideration because it will not fit within their artificial timeline due to their frittering away of a decade with no explanation for this delay found in the FEIS. Meanwhile, the fourth discharge point, with more apparent environmental concerns, is selected because it was always the Partners' preference and, accordingly, they got their act together to fully vet it early in their process. In a striking parallel to the selection of Site 14, there were no real alternatives on the table other than the Partners' initial choice. The USACE must request the Partners obtain IBT approval for the Harris Lake discharge point to fully vet this alternative, or else it is complicit in reverse engineering a discharge point and its FEIS fails to serve its essential purpose.

### **Conclusion**

As noted above, the FEIS 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 and was also the case with the DEIS, the FEIS does not meet any of these requirements. Given this, NHCA requests the FEIS be supplemented and re-submitted for further public comment once it has addressed the above concerns.

On a broader note, many of the issues raised above pertain to fundamental problems with Site 14. Specifically, the FEIS cannot at this late date change the fact that 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 re-consider the wisdom of permitting the Partners 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  
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Staff Attorney  
Southern Coalition for Social Justice