

MINUTES OF CHATHAM COUNTY ENVIRONMENTAL REVIEW ADVISORY COMMITTEE
(ERAC) MEETING September 10, 2015

Location: Performance Building Conference Room

Time: 6:30 PM

Attendees: Jerry Cole, Terry Schmidt, Francis DiGiano,, Graham Swift, Sherri Stuewer, Mary Beth Koza, , Elaine Chiosso, Vic D'Amato

Staff: Dan LaMontagne & Jason Sullivan

Commissioner Hales was also present.

Absent: David Mattison, Luke Groff, Ray Bode

Quests: John Graybeal, Sonny Keisler, Harvey Himberg, Stacey Curtis

Meeting called to order by Jerry Cole, chair, at 6:30 PM

1. Introductions of all in attendance.
2. Selection of the recording secretary for the meeting minutes –Mary Beth Koza
3. Approval of meeting minutes from August 13, 2015

Graham Swift made the motion to approve and Sherri Stuewer seconded the motion. Meeting minutes were approved.

4. Public Input – John Graybeal & Sonny Keisler presented to the group the idea of “The Chatham County Conservation and Climate Change Task Force”. He asked the group support this idea, which would cover energy efficiency, renewable resources development and land use and to assure that Chatham County recognizes the impact global warning and climate change. (See Attachment 1)

After discussion, the ERAC consensus was that it welcomed their presentation, accepted that climate change is an important issue and has no objection to their presenting their idea to the County Commissioners.

5. Discussion of criteria for ERAC review of Environmental Impact Assessments (EIAs) - Jason Sullivan, Planning Director (See Attachment 2)

Jason presented the Chatham County Zone Map and Zoning Areas.

It was noted that the Environmental Review Advisory Committee (ERAC) is the successor to the Environmental Review Board (ERB), which is referenced in Jason’s outline. Although the ERB was a part of the zoning review process after its establishment in 2007, it was removed by the Board of Commissioners as part of the review process in 2011, when the name was changed to ERAC.

While required under Subdivision Regulations and Conditional Use Permits, the EIAs cannot be used to force changes to the submitted zoning requests. However, Elaine Chiosso stated that there is a lot of value to the citizens of the county to understand the project and provides the opportunity for public input.

Jason stated the EIA could be of value for “Conditional Use Permit or Conditional Zoning District” because conditions can be added to the project if requested by the County Commissioners.

The group had discussion on how the review of EIA’s by the committee can add value and bring our concerns directly to the Commissioners.

Jason recommended that the ERAC could propose changes to County Commissioners for a change in the review process. In addition, the Chatham County Comprehensive Plan Steering Committee process may allow for an opportunity for suggested changes.

After discussion, it was agreed that the ERAC would continue to review EIAs as they are submitted.

6. Wastewater sludge application discussion

Sherri Stuewer presented a review of a “Characterization of field leachate at Coal Combustion Product Sites, Nov 2006 DOE & EPRI”. Sherri raised the question as to whether the required monitoring in to the Sanford Waste Water Treatment Plant (WWTP) NPDES Permit NC0024147 is adequate to detect possible contaminants unique to coal ash leachate. The concern is that the sludge disposal from that WWTP will be applied to agricultural land in Chatham County. What are the environmental impacts to the county Dan LaMontagne agreed to contact the Sanford WWTP to obtain more information on their monitoring requirements.

7. Updates from County Staff
None

8. Announcements and updates from ERC members
None

The next meeting of the ERAC is scheduled for Thursday, October 9 at 6:30 pm.

After a motion by Mary Beth, seconded by Graham, the meeting was adjourned

Attachment 1

My name is Sonny Keisler, I live at 3006 River Forks Rd. on property that borders the Rocky River.

From 2007 to 2010 I served on the Environmental Review Board. During this time a subcommittee was formed to study the likely impacts of Global warming and climate change on Chatham County. The Environmental Review Board discussed the issue several times and members of the subcommittee made a presentation to the Planning Board. Before much more was accomplished, we had an election in 2010. This led to a Board of County Commissioners that considered global warming and climate change to be unimportant.

Now over four years later, we think it is time for Chatham County to fully recognize the fact that global warming and climate change will be by far the largest determinant of

Chatham County's future. As such now is the time to create a task force that can compile relevant research and make recommendations concerning how Chatham County and its residents can prepare for our hotter more turbulent future through (1)

first, efforts to adapt to a new climate and (2) secondly, efforts to help mitigate and

therefore slow down climate change. These efforts will include, but not be limited to, various actions such as greater energy efficiency, renewable resource development, and land use management that emphasizes resource conservation involving especially forestry, agriculture and residential and commercial development. It is for this reason we have suggested the name ...

The Chatham County Conservation and Climate Change Task Force.

In 2014 and 2015 we have had the Church of England, the World Bank and the Roman Catholic Church - among many other leading institutions - telling us mankind faces no greater threat than global warming and climate change. As such, we in Chatham County need to listen and start taking actions. This is especially true since efforts at the national and international levels to curb greenhouse gas pollution have failed to even come close to solving the problem.

Thanks You,

Sonny Keisler

Attachment 2

Environmental Impact Assessment Standards for Chatham County

General Overview:

- Subdivision
- Zoning (partially zoned)

Background:

- Pre-2008
 - o Subdivision Regulations
 - Provision for the Planning Board to require an Environmental Impact Assessment (EIA) with no threshold criteria and included a limited list of items to be addressed.
 - o Zoning Ordinance
 - No EIA requirement.
- 2007
 - o Environmental Review Board (ERB)
 - established by the Board of Commissioners (2/1/07)
 - ERB holds first meeting (3/8/07)
 - o Subdivision Regulations
 - Threshold criteria for EIA's adopted by BOC (12/10/07, effective date 1/23/08)
 - Exceeds 2 contiguous acres in extent and includes more than 25 lots.
 - No formal review process included in amendment.
 - o Zoning Ordinance
 - Threshold criteria adopted for EIA's adopted by BOC (12/10/07, effective date 1/23/08)
 - EIA required for any proposed non-residential project of two contiguous acres or more in extent.
 - No formal review process included in amendment and applied to any new non-residential project.
- 2008
 - o Subdivision Regulations
 - Complete overhaul and re-adoption of regulations by BOC (12/2/08)
 - Established 4 part review process (Concept Plan, First Plat, Construction Plan, Final Plat)
 - ERB review required prior to First Plat submittal for Planning Board and BOC review; submittal deadline to ERB 60 days prior to meeting.
 - EIA threshold criteria – minor revisions to regulations, still applied to non-residential project disturbing 2 or more acres in extent and any residential project of 2 or more acres in extent with 25 or more dwelling units (Section 6.2).
 - EIA format outlined with specific items that must be addressed.
 - o Zoning Ordinance
 - Several revisions to the ordinance and adoption by BOC (12/2/08)

- EIA threshold criteria – minor revisions, but still applicable to any non-residential project that disturbs more than two contiguous acres or more in extent (Section 11.3).
 - ERB included for review of conditional use permits required to have an EIA.
- 2011
 - Subdivision Regulations
 - ERB removed from the review process prior to First Plat submittal (9/6/11).
 - EIA threshold increased to 50 or more dwelling units (9/6/11).
 - EIA peer review paid by the developer with a 60 day review period; peer review must be completed prior to First Plat application submittal (9/6/11).
 - Zoning Ordinance
 - Section 11.3 amended to only require EIA's for conditional use permits (6/6/11).
 - ERB removed from the review process for conditional use permits by BOC (9/6/11)
- 2012
 - Zoning Ordinance
 - Multiple amendments to the Zoning including switch to conditional zoning. Also included revisions to Section 11.3 to require EIA's for any new conditional use permit or conditional zoning district application, or any expansion of an existing cup or conditional zoning district greater than 5 acres or 10% of the additional acreage, whichever is less.

Other regulatory changes:

June 2007 – moratorium adopted for 1 year for subdivisions greater than 25 lots. Moratorium extended for an additional 6 months to December 2008.

November 2007 – Zoning extended to 32.2 square miles of the county along previously unzoned highway corridors.

December 2007 – Riparian buffer standards overhauled to include on-site evaluation (effective date January 2008)

November 2008 – Stormwater Ordinance adopted by the BOC.

Links to land use regulations enforced by planning:

<http://www.chathamnc.org/index.aspx?page=440>

6.2 Additional First Plat Information

A. Environmental Documentation

Any proposed subdivision of forty-nine (49) Jots or less shall be required to submit Environmental Documentation to the County. The Environmental Documentation shall include the information required by the General Environmental Documentation Submittal Form developed by the Environmental Quality Department.

B. Environmental Impact Assessment

Pursuant to N.C. Gen. Stat. § 113A-8, the County requires the subdivider to submit an Environmental Impact Assessment for any proposed non-residential development project, excepting bona fide farm activities, of two contiguous acres or more in extent that disturbs two or more acres, or for any proposed residential development project of two contiguous acres or more in extent that will include fifty (50) or more dwelling units, whether detached or attached single family residences or in a multifamily structure or structures.

Development activities for which a detailed statement of the environmental impact of the project is required pursuant to N.C. Gen. Stat. § 113A-4(2) or 42 U.S.C. §4332(C), or for which a functionally equivalent permitting process is required by federal or State law, regulation or rule, are exempt from the requirement of Section 6.2 A. However, a copy of such any such statement of environmental impact shall be provided to the County.

The Environmental Impact Assessment document shall include the following information as applicable:

Proposed Project Description and Need

- 1) Describe the overall project in detail, including all proposed phases.
- 2) Provide a project location map showing surrounding areas.
- 3) Provide a project site plan showing existing and proposed facilities.
- 4) Describe how this project fits into larger plans or connects with adjacent projects.
- 5) List and describe any public facilities or public benefits provided by the project.
- 6) Discuss the land acreage to be disturbed during each phase.
- 7) List square footage and height (in stories) of new buildings.
- 8) Describe proposed uses of all buildings and proposed facilities.
- 9) Show number of parking spaces in parking lots and decks.
- 10) Show areas to be cleared, graded, filled, paved, and landscaped.
- 11) Show connections to existing utility and sewer lines or new utilities. 12) Show wastewater management systems on a map.
- 13) Show proposed areas of impervious and semi-pervious surfaces. 14) Show and describe any proposed stormwater control devices.

Alternatives Analysis

- 1) Discuss and compare all reasonable development alternatives (site selection, facility layout, utilities, stormwater management, construction methods, open space preservation, any other pertinent alternative considerations).
- 2) Discuss how the preferred alternative was selected and its benefits relative to other alternatives (including a no-build alternative, if applicable).

Existing Environment and Project Impacts For

each resource topic below, describe:

- A. Existing resources and conditions.
- B. Anticipated impacts (short-term construction impacts, long-term operation impacts, and indirect or secondary impacts).
- C. Discuss how potential impacts to the resource will be avoided and minimized through alternative selection, design strategies, construction methods, and long-term maintenance procedures.
- D. For unavoidable impacts, describe whether any compensatory mitigation is planned or required.

1) Geography

Discuss the geographic setting, geology, and topography of the project area and adjacent areas.

Provide a topographic map of the property and surrounding area, use the county GIS website topography (2' contour interval) data at a scale appropriate for the project size, i.e., 1" = 100', etc.).

Identify any 100-year floodplains (FEMA Special Flood Hazard Areas) on or adjacent to the property. If present, provide an appropriate-scale map of these flood-prone areas defined by the NC Flood Mapping Program.

Show areas that will be graded or filled, and provide estimated cut/fill volumes.

If the project includes pond or dam work, show areas that will be flooded.

2) Soils and Prime Farmlands

Identify dominant soils in the project area (County GIS or NRCS website) and show on a map.

Discuss any soil constraints (fill, wetland soils, septic suitability, slopes, etc.), and indicate those areas on a map.

Describe any soil disturbance or contamination expected as a result of this project.

If contamination is expected, discuss containment plans and procedures. If soil will be relocated, specify the number of square yards/feet to be moved, and its relocation site.

Describe runoff management plans for the project.

If soil disturbance is proposed, describe the off-site impacts expected from this activity.

Provide a map of any prime or unique farmland soils in the project or service areas, and include references used to make this determination. Describe impacts to prime or unique farmland soils, including acreage estimates of lost farmland soils and retained farmland soils.

3) Land Use

Provide a map showing current use of land on the site and surrounding properties.

Discuss how the current land use fits into the surrounding area (conservation, development, ecological function, etc).

Provide the current zoning of the project site and the surrounding area. Discuss how the proposed uses fit into the intended land use of the area (conservation, development, ecological function, quality of life).

Indicate whether zoning or local land use plans will need to be changed after project completion,

4) Existing and Natural Resources

Show on a map, riparian buffers (locations and widths), wetlands, and ponds and watercourses (with name and direction of flow). Also show the special flood hazard areas.

Provide a copy of the State and Federal reports regarding wetlands and stream delineations.

Provide a copy of the County report regarding riparian buffer delineations

Provide a table of all anticipated temporary and permanent impacts to existing natural water resources and riparian buffers and discuss how the potential impacts will be avoided and minimized through alternative selection design strategies, construction methods, and

long-term maintenance procedures. For unavoidable impacts, describe proposed mitigation.

5) Public Lands and Scenic, Recreational, and State Natural Area?

Provide a map of County or municipal parks, scenic, recreational, or state natural areas (SNHAs, State or Federal Forests, etc.) on or adjacent to the site/project area.

6) Areas of Archaeological or Historical Value

Discuss any archaeological or historical studies of the project location; provide relevant references.

Describe and identify on a map any structures (i.e., walls, buildings, etc.) on the site and provide estimated ages of those structures.

Describe all impacts to any archaeological or historical resources in the proposed project area.

Describe plans for demolishing or rebuilding any structures.

Provide photographs of any significant resources, including all structures older than 50-years.

Provide relevant correspondence with the Chatham County Historical Association

and NCSHPO.

- 7) Air Quality
 - Describe the project's impacts on ambient air quality.
 - Describe plans for any open burning during or after construction.
 - Indicate the number of proposed parking spaces, if applicable.
 - Describe whether the project will increase odor levels, or the likelihood of odor complaints.
 - Provide a copy of any required traffic studies.

- 8) Noise Levels
 - Discuss current noise levels; use a benchmark, if possible. Describe any increases in noise levels expected from this project. Specify the distance at which the increased noise will be heard.
 - Discuss whether surrounding properties will be affected by noise levels. If commercial uses are proposed, specify the hours of operation.

- 9) Light Levels
 - Describe lighting plans for the project, including how lighting will impact adjacent residents and wildlife.

- 10) Surface and Groundwater Resources and Watershed Area
 - Describe groundwater (aquifers) in the project area.
 - Discuss any known groundwater quality issues.
 - Specify and show on a map the river basin in which the project is located. List the type(s) of Watershed Area(s) on the property and show a map.
 - Discuss drinking water sources.

- 11) Fish and Aquatic Habitats
 - Describe fish and aquatic habitats in and adjacent to the site/project area.
 - Discuss impacts to fish and aquatic life and their habitats, including a map showing those habitats.

- 12) Wildlife and Natural Vegetation
 - Describe and provide a map of natural community types on and adjacent to the site/project area.
 - List the species of dominant plants and animals observed on the site that typify those communities.
 - Evaluate and discuss whether suitable habitat exists for rare, threatened, and/or endangered species, as described by the NC Natural Heritage Program.
 - If wildlife will be displaced, discuss any limitations of adjacent areas to support them.
 - Identify, list, and describe the distribution of the invasive species present on the site. Consult the NC Botanical Garden's Web page, "Plants to Avoid in the Southeast US" for a list of invasive species common to the region.
 - If forests will be cleared, discuss the extent of planned deforestation and specify the forestry methods to be used, including BMPs.

13) Hazardous Materials

List all hazardous materials to be stored or introduced during construction or operation.

For each hazardous material, other than in de minimis quantities or for routine housekeeping purposes, describe the procedures to be used to ensure their proper management, storage, and disposal.

References

Exhibits (Maps, Figures, Tables, Photos,

etc.) State and Federal Permits Required

C. Topographic Map

A topographic map with contours at vertical intervals of not more than five (5) feet, at the same scale as the First Plat, for all major subdivisions unless not deemed necessary by staff. Staff may require a topographic map for other subdivisions if necessary for adequate review. The date and method of preparing the topographic survey shall be stated.

D. Soils Evaluation

A soils evaluation shall be performed by a certified/licensed soil scientist or persons approved by the Health Department to perform such evaluations or investigations. Such evaluations shall be performed unless a central sewage disposal system is proposed. A soils map showing the location of suitable soils and a letter of explanation shall be submitted to perform such evaluations or investigations.

E. Utility Plans

Plans of proposed utility layouts for sewer and water where applicable, showing feasible connections to the existing utility system, or any proposed utility system.

F. U.S. Army Corps of Engineers and Division of Water Quality Permits or Certifications

Indicate if US Army Corps of Engineers and/or NC Division of Water Quality permits or certifications will be required. These permits and/or certifications may be required when development improvements may involve the placement of excavated material or fill material into streams, creeks, lakes, or wetlands. If any of these permits or certifications will be required, copies of the approved permits shall be submitted at time of Construction Plan submittal.

Leachate Quality at CCP Management Facilities

*Characterization of Field Leachates
at CCI Combustion Product*

Table 4-1

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Summary Statistics of CCP Leachate Analytical Results

Do.f. ii £PRL

| | Ash Leachate Samples | | | | | FGD Leachate Samples | | | | |
|--------------|----------------------|--------|--------|-------------|-------|----------------------|--------|--------|--------|--------|
| | Count | Min | Median | Max | % BDL | Count | Min | Median | Max | o/oBDL |
| Ag (ug/L) | 67 | <0.2 | <0.2 | 2.0 | 93o6 | 14 | <0.20 | <0.20 | <0.20 | 100%> |
| Al (ug/L) | 67 | <2.0 | 114 | 44,400 | 16% | 14 | <24 | 179 | 890 | 14% |
| As (ug/L) | 67 | 1.4 | 25 | 1,380 | 00o | 14 | 11 | 28 | 230 | 0o/o |
| As(III) | 67 | <0.04 | 0.37 | 859 | 40o6 | 14 | <0.3 | 2.1 | 197 | 21o6 |
| As(V) | 67 | <0.08 | 18 | 534 | 8% | 14 | <0.5 | 5.4 | 63 | 21o/o |
| B (ug/L) | 67 | 207 | 2,160 | ft, 112,000 | 0o6 | 14 | 1,450 | 9,605 | 98,500 | 0o6 |
| Ba (ug/L) | 67 | <18 | 108 | 657 | 4% | 14 | <30 | 73 | 158 | ?o6 |
| Be (ug/L) | 67 | <0.2 | <0.4 | 8.6 | 94o6 | 14 | <0.20 | <0.80 | 1.5 | 93% |
| Ca (mg/L) | 66 | <2.2 | 55 | 681 | 2% | 14 | 234 | 589 | 730 | 0% |
| Cd (ug/L) | 67 | <0.2 | 1.5 | 65 | 12o6 | 14 | 0.50 | 1.8 | 13 | 0o/o |
| Cl (mg/L) | 66 | 4.5 | 25 | 92 | 0o6 | 14 | 19 | 921 | 2,330 | 0o/o |
| Co (ug/L) | 67 | <0.04 | 1.0 | 133 | 31% | 14 | <0.028 | 1.0 | 78 | 36o/o |
| CO, (mg/L) | 63 | <0.01 | 0.60 | 152 | 13% | 14 | <0.010 | 1.0 | 21 | 21% |
| Cr (ug/L) | 67 | <0.2 | 0.60 | 5,100 | 45% | 14 | <0.20 | <0.50 | 53 | 64o6 |
| Cr(III) | 41 | <0.01 | 0.16 | 340 | 34o6 | 4 | <0.1 | 0.082 | 1.3 | 50%.i. |
| Cr(VI) | 53 | <0.006 | 0.7 | 5090 | 36o6 | 5 | <0.02 | 2.9 | 47 | 40o/o |
| Cu (ug/L) | 67 | <0.2 | 3.0 | 494 | 19o6 | 14 | <0.26 | 2.6 | 44 | 14% |
| Fe (ug/L) | 67 | <3 | <50 | 25,600 | 52% | 14 | <4.6 | <50 | 1,200 | 71o/o |
| H.CO, (mg/L) | 63 | <0.01 | <0.01 | 3.4 | 87o/o | 14 | <0.010 | <0.010 | 0.041 | 93o/o |
| HCO, (mg/L) | 63 | 0.042 | 53 | 535 | 0o6 | 14 | 0.50 | 7.5 | 87 | 0% |
| Hg (ng/L) | 22 | 0.25 | 3.8 | 61 | 00o | 8 | 0.82 | 8.3 | 79 | 0o6 |
| K (mg/L) | 66 | <2.2 | 11 | 277 | 3o6 | 14 | 10 | 425 | 609 | 0% |
| Li (ug/L) | 67 | <1.0 | 129 | 23,600 | 13% | 14 | <20 | 3,055 | 7,070 | 14% |
| Mg (mg/L) | 66 | <0.05 | 13 | 236 | 8o6 | 14 | <0.050 | 8.9 | 5,810 | 14o6 |
| Mn (ug/L) | 67 | <0.1 | 55 | 4,170 | 21o6 | 14 | <0.10 | 113 | 1,170 | 14o6 |
| Mo (ug/L) | 67 | <8.2 | 405 | 39,600 | 3% | 14 | 164 | 341 | 60,800 | 00o |
| Na (mg/L) | 66 | 3.8 | 52 | 3,410 | 00o | 14 | 108 | 322 | 4,630 | 0o/o |
| Ni (ug/L) | 67 | <0.6 | 5.8 | 189 | 13% | 14 | <2.0 | 3.4 | 597 | 3606 |
| Pb (ug/L) | 67 | <0.1 | <0.20 | 8.0 | 73o/o | 14 | <0.14 | <0.20 | 3.5 | 64o6 |
| Sb (ug/L) | 67 | <0.1 | 2.4 | 59 | 3o6 | 14 | <0.10 | 1.00 | 22 | 29o/o |
| Se (ug/L) | 67 | 0.071 | 19 | 1,760 | 0o/o | 14 | 1.1 | 6.2 | 2,360 | Q<6 |
| Se(IV) | 67 | <0.1 | 5.3 | 217 | 21o/o | 14 | <0.1 | <2.0 | 79 | 64% |
| Se(VI) | 67 | <0.1 | 1.5 | 1300 | 34o6 | 14 | <0.3 | 2.2 | 1660 | 21o/o |
| Si (ug/L) | 67 | 221 | 4,645 | 19,000 | 00o | 14 | 400 | 2,480 | 45,400 | 00o |
| SO, (mg/L) | 66 | 45 | 339 | 6,690 | 0o/o | 14 | 836 | 1,615 | 30,500 | 00o |
| Sr (ug/L) | 67 | <30 | 829 | lo> 12,000 | 1o6 | 14 | 1,500 | 5,230 | 16,900 | 0% |
| TIC (mg/L) | 66 | 0.75 | 11 | 115 | 0o6 | 14 | 0.95 | 2.6 | 18 | 0o6 |
| Tl (ug/L) | 67 | <0.1 | 0.36 | 18 | 46o6 | 14 | <0.10 | <0.22 | 2.9 | 86o/o |
| TOC (mg/L) | 66 | <0.09 | 3.3 | 57 | 24% | 14 | 0.51 | 8.0 | 50 | 0% |
| U (ug/L) | 67 | <0.01 | 1.2 | 61 | 19% | 14 | <0.010 | 0.20 | 16 | 36% |
| V (ug/L) | 67 | <0.42 | 45 | 4: 5,020 | 3% | 14 | <0.69 | 4.1 | 400 | 21°/t. |
| Zn (ug/L) | 67 | <1.5 | 5.0 | 289 | 46o6 | 14 | <2.0 | <5.0 | 68 | 57p2 |
| OO (%) | 61 | 0.10 | 35 | 165 | 0% | 14 | 0.20 | 14 | 95 | 00o |
| ORP (mV) | 63 | -41 | 241 | 411 | 2o/o | 14 | 1.5 | 201 | 356 | 0% |
| pH (SU) | 64 | 4.3 | 7.9 | 12 | 00o | 14 | 6.2 | 9.0 | 12 | 0% |
| EC (umho/cm) | 64 | 174 | 990 | 12,760 | 0% | 14 | 2,190 | 6,461 | 26,140 | 0% |
| Temp (°C) | 64 | 10 | 21 | 36 | 00o | 14 | 9.9 | 17 | 27 | 0o6 |

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Notes:

Dissolved oxygen (DO) is percent saturation

4-4

A. (2) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (12 MGD)

Beginning upon receipt of the Engineer's Certification of completion of the 120 MGD expansion and lasting until permit expiration, the Permittee is authorized to discharge treated wastewater from Outfall 001. Such discharges shall be limited and monitored by the Permittee as specified below:

| PARAMETER | EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | | |
|--|--|---------------------------------|---------------|-------------------------|----------------------|----------------------|
| | Monthly | Weekly | Daily Maximum | Measurement | Sample | Sample |
| | Average | Average | | Frequency | Type | Location |
| Flow | 12 MGD | | | Continuous | Recording | Influent or Effluent |
| CBOD, 5-day, 2QOC ¹ (April 1-Oct 31) (November 1-March 31) | 5.0mg/L 9.2mg/L | 7.5 mg/L 14.2mg/L | | Daily | Composite | Influent & Effluent |
| Total Suspended Solids ¹ | 30.0mg/L | 45.0mg/L | | Daily | Composite | Influent & Effluent |
| NH₃-N, mg/L (April 1-October 31) (November 1-March 31) | 1.0mg/L 1.1mg/L | 3.0mg/L 3.4 mg/L | | Daily | Composite | Effluent |
| Fecal Coliform (geometric mean) | 200/100 ml | 400/100ml | | Daily | Grab | Effluent |
| Total Residual Chlorine | | | 28 µg/L | Daily | Grab | Effluent |
| Dissolved Oxygen | Daily average shall not be less than 5.0mg/L | | | Daily | Grab | Effluent |
| pH | 6.0 and 9.0 standard units at all times | | | Daily | Grab | Effluent |
| Temperature, °C | | | | Daily | Grab | Effluent |
| Conductivity, µmhos/cm | | | | Daily | Grab | Effluent |
| Total Phosphorus (mg/L) | | | | Weekly | Composite | Effluent |
| Total Phosphorus ² (April 1- 31) | Monitor & Report (pounds/month) | | | Monthly | Calculated | Effluent |
| | 20,138 pounds seasonal total | | | Seasonally | Calculated | Effluent |
| Total Nitrogen ³ (mg/L) | | | | Weekly | Composite | Effluent |
| Total Nitrogen ² (April 1-October 31) | Monitor & Report (pounds/month) | | | Monthly | Calculated | Effluent |
| | 64,628 pounds seasonal total | | | Seasonally | Calculated | Effluent |
| TKN | Monitor and Report | Monitor and Report | | Weekly | Composite | Effluent |
| NO ₃ -N + NO ₂ -N | Monitor and Report | Monitor and Report | | Weekly | Composite | Effluent |
| Total Copper (µg/L) | | | | Quarterly | Composite | Effluent |
| Total Silver (µg/L) | | | | Quarterly | Composite | Effluent |
| Total Zinc (µg/L) | | | | Quarterly | Composite | Effluent |
| Chloride (mg/L) | | | | Quarterly | Composite | Effluent |
| Total Mercury ⁴ (nanograms/l) | 12ng/L | | 36ng/L | Quarterly | Grab | Effluent |
| Chronic Toxicity ⁵ | Ceriodaphnia, P/F @ 45% | | | Quarterly | Composite | Effluent |

Pollutant Scan •

Annually

Foofllote6

Effluent

Footnotes:

1. The monthly average effluent CBODS and Total Suspended Solids concentrations shall not exceed 15% of the respective influent values.
2. Compliance with this limit shall be detennined in accordance with section A. (4) of this penniL
3. $1N = TKN + NO_3-N + NO_2-N$, where 1N is Total Kjeldabl Nitrogen, and NO_3-N and NO_2-N are Nitrate and Nitrite Nitrogen, respectively.
4. Low-level mercury analysis using EPA method 163!E for all effluent sampling is required.
5. Chronic Toxicity (*Ceriodaphnia dubia*) @ 4Sob; March, June, September and DeCCInber (see A. (7)).
6. Seesection A. (8.) of this permit
7. TRC limit and monitoring requirement only l!pply if chlorine is used for disinfection. The fBcility shall report all effluent TRC values reported by a NC certified laboratory including field certified. Howe l l cr, effluent values below 50pg/L will be treated as zero for compliance purposes

There shall be no discharge of floatiog solids or visible foam In other than trace amounts.

A. (8) EFFLUENT POLLUTANT SCAN

The Permittee shall perform Effluent Pollutant Scan 3 times per permit term for all parameters listed in the attached table. The analytical methods shall be in accordance with 40 CFR Part 136 and shall be sufficiently sensitive to determine whether parameters are present in concentrations greater than applicable standards and criteria. Samples shall represent seasonal variations. Unless otherwise indicated, metals shall be analyzed as "total recoverable."

| | | |
|---|---|------------------------------|
| Ammonia (as N) | Trans-1,2-dichloroethylene | Bis(2-chloroethyl) ether |
| Chlorine (total residual, TRC) C1 | 1,1-dichloroethylene | Bis(2-chloroisopropyl) ether |
| Dissolved oxygen | 1,2-dichloropropane | Bis(2-ethylhexyl) phthalate |
| Nitrate/Nitrite | 1,3-dichloropropylene | 4-bromophenyl phenyl ether |
| Residual nitrogen | Ethylbenzene | Butyl benzyl phthalate |
| Oil and grease | Methyl bromide | 2-chloronaphthalene |
| Phosphorus P | Methyl chloride | 4-chlorophenyl phenyl ether |
| Total dissolved solids | Methylene chloride | Cyclohexane |
| Total suspended solids | 1,1,2,2-tetrachloroethane | Di-n-butyl phthalate |
| Ammonia NH₃ | Tetrachloroethylene | Di-n-butyl phthalate |
| Arsenic As | Toluene | Dibenz(a,h)anthracene |
| Boron B | 1,1,1-trichloroethane | 1,2-dichlorobenzene |
| Cadmium Cd | 1,1,2-trichloroethane | 1,3-dichlorobenzene |
| Chromium Cr | Trichloroethylene | 1,4-dichlorobenzene |
| Copper Cu | Vinyl chloride | 3,3-dichlorobenzidine |
| Lead Pb | 4-ethylphenol 4-ethylphenol | Diethyl phthalate |
| Mercury (Method 1631E) Hg | p-chlorophenol | Dimethyl phthalate |
| Nickel Ni | 2-chlorophenol | 2,4-dinitrophenol |
| Selenium Se | 2,4-dichlorophenol | 2,6-dinitrotoluene |
| Silver Ag | 2,4-dimethylphenol | 1,2-diphenylhydrotine |
| Thallium Tl | 4,4'-dinitrothiobenzophenone | Fluorene |
| Zinc Zn | 2,4-dinitrophenol | Fluorene |
| Cyanide CN | 2-nitrophenol | Hexachlorobenzene |
| Total phenolic compounds | 4-nitrophenol | Hexachlorobutadiene |
| Total phenolic compounds Total phenolic compounds | Pentachlorobenzene | Hexachlorocyclopentadiene |
| Acrolein | Phenol | Hexachloroethane |
| Acrylonitrile | 2,4,6-trichlorophenol | Indeno(1,2,3-cd)pyrene |
| Benzene | 1,2,4-trichlorobenzene 1,2,4-trichlorobenzene | Isophorone |
| Bromobenzene | Acenaphthene | Naphthalene |
| Carbon tetrachloride | Acenaphthylene | Nitrobenzene |
| Chlorobenzene | Anthracene | N-isopropyl-N-propylamine |
| Chlorodibromomethane | Benzidine | N-nitrosodimethylamine |
| Chloroethane | Benzo(a)anthracene | N-nitrosodiphenylamine |
| Chloroethylvinyl ether | Benzo(a)pyrene | Phenanthrene |
| Chloroform | 3-benzofluoranthene | Pyrene |
| Dichlorobromomethane | Benzo(ghi)perylene | 1,2,4-trichlorobenzene |
| 1,1-dichloroethane | Benzo(k)fluoranthene | |
| 1,2-dichloroethane | Bis(2-chloroethoxy) methane | |

Test results shall be reported to the Division in DWQ Form- AMR-PPAI or in a form approved by the Director within 90 days of sampling. The report shall be submitted to the following address:

NC DENR /DWQ /Central Files

1617 Mail Service Center

Raleigh, NC 27699-1617

A. (9) PERMIT RE-OPENER: MERCURY TMDL IMPLEMENTATION

The Division may re-open the permit to implement the requirements of the Mercury TMDL.