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January 5, 2010

Mr. Phillip J. Cherry
Director of Policy and Planning
Department of Natural Resources
and Environmental Control
Office of the Secretary
89 Kings Highway
Dover DE 19901

Re: Coastal Zone Permit Application
Wandendale Regional Wastewater
Treatment and Disposal Facility

Dear Mr. Cherry:

This is in response to the issues raised in your letter of December 3, 2009 that was received on December 10, 2009. To facilitate your review, the questions raised in the cited letter are repeated herein followed by our responses.

Offset Calculations

- The calculations and assumptions you used to determine the calculated equivalent number of septics eliminated for nitrogen (5,669) and phosphorous (6,753).

  The calculations and assumptions are set forth in the narrative and chart in Attachment M in the application.

- The calculations and assumptions you used to determine the avoidance of 8,400 future septic tanks as well as the elimination of 1,600 existing septic tanks;

  The estimated ultimate wastewater treatment plant capacity at this site will be 3.0 MGD. Using the Sussex County Engineering Department Standards and Specifications design value of 300 GPD/EDU, this yields a service capacity of 10,000 EDU's. We used GIS to enumerate the number of potential, existing septics (1,600) in the planning area. The difference is 8,400 potentially new septics resulting from future development.

- Do the first two items above represent separate, discrete sets of calculations, or are they related to each other?

  Separate in time but related in the quantity of flow used per EDU.

- Is the 8,400 number based on Sussex County's base density of two units per acre, or on the additional density that would be permitted if central wastewater disposal were provided to this area?

  See the answer to the second bullet for the basis

- Do the calculations and assumptions take into account the fact that the Inland Bays Pollution Control Strategy requires all new septic systems constructed after 1/1/15 to limit the effluent nitrogen concentration to $\leq$ 20 mg/l?

  Yes, see narrative and chart in Attachment M. Equations from the Pollution Control Strategy were used to calculate equivalent septics.

- Are these calculations based on the total planning area (the blue area shown on Attachment C) or on your current (yellow) wastewater service areas?

  Based on a 3.0 MGD plant

- Are your calculations based on the total ultimate planned disposal of 3.0 MGD using both Rapid Infiltration Basins and spray irrigation or on the likelihood that the predominant technology (first 2 MGD) will be RIBs?

  3.0 MGD facility for both RIBs and spray as described in Attachment M

- How do your offset calculations compare with the ongoing Delaware Geological Survey study on the impact of RIBs – particularly the study's assertion that:

  1. RIBS discharge nitrogen into the water table at rate up to 25 times higher than spray irrigation;
  2. RIBs push water into the water table at a rate up to 25 times higher than spray irrigation; and
  3. They locally raise the water table and create a mound of water, causing the discharge to follow the path of least resistance, usually to surface waters- in this case, to Love Creek.

We fail to see the relationship between a yet to be completed and unpublished Delaware Geologic Survey study on a site remarkably unlike the Wandendale site and the site which is the subject of the CZA application. We have requested a copy of whatever version of this DGS study that is being referenced. Further, since the soils and geohydrological work for the RIB portion of this site has already been approved by DNREC's Groundwater Discharges Section, we believe these questions to be even more irrelevant. As pointed out in our recent meeting, any questions regarding mounding and the effect on groundwater flow direction should be readily resolved once the DNREC review of this Groundwater Impact Assessment is completed. As we recall, the estimated review completion date is January 11, 2010.

- The net effect of installation of this facility at the location desired will be to import wastewater into the Coastal Zone for treatment and disposal, and yet the offset will occur largely outside the Coastal Zone I (in eliminated septics). How is this consistent with our Regulations and what is the net impact on water quality in the Coastal Zone?

  The regulations allow for offset programs statewide, inside and outside of the Coastal Zone. The most immediate impact for offset would be in the elimination of septics. The water quality from the treated effluent will produce 40% less TN and 90% less TP than required by the Pollution Control Strategy. The Total N and P leaving the site during full operation will be 20% and 21% less respectively than existed prior to implementing the full treatment and disposal plan for the facility.

Facilitating Unplanned Development in "Level 4"

- Also, your entire planning area is in "Level 4", according to the 2004 Strategies for State Policies and Spending. In Level 4, the State's focus is on preservation, with limited or no investment in transportation, schools and other long-term capital expenditures. For example, transportation projects in Level 4 are intended to include only necessary drainage, maintenance, and safety improvements, and programs to manage regional highway facilities. This project would appear to promote sprawl, traffic, air pollution and other environmental impacts in an area where we were not planning – and are not fiscally prepared – to invest taxpayers money in growth. Please explain, from the applicant's perspective, how this apparent inconsistency between construction of a new wastewater treatment facility and the promotion of new growth in a level 4 area should be reconciled under the Coastal Zone Act.

Questions of this type should have been, and were, made during the PLUS process under the previous administration and we believe that DNREC should recognize that these queries were successfully addressed as part of the PLUS process before they reached the Coastal Zone application stage.

In any case, most of the DNREC comments have not been grounded with any evidence supporting its sweeping statements and are, for the most part, incorrect as follows:

The proposed facility will be owned and operated by the privately owned company Tidewater Environmental Services, Inc. and will require no public spending of any kind nor will the existence of such a facility cause any expenditure by the State. Thus, the proposed facility is not in conflict with Strategies for State Policies and Spending which, in theory, guided the previous State administration regarding where State funds would be spent. There is no evidence, whatsoever, that the existence of the proposed facility will increase the pressure to build in the Level 4 areas of the County. The mere existence of the facility has no impact on development one way or the other and the facility, as proposed, is entirely consistent with the Sussex County Comprehensive Plan. Furthermore, approval of any new development is the strict purview of Sussex County government who solely has the authority to determine whether or not the proposed facility is approved or exists. Tidewater Environmental Services received Sussex County's Council's Conditional Use approval on December 4, 2008.

We are unaware of what environmental impacts the DNREC is referring to.

- All required buffers have been established
- Voluntary 100' buffers have been established between both Federal and State wetlands
- Tree clearing has been minimized; forest land has been almost entirely preserved
- Nutrients leaving the site postdevelopment have been reduced to a level lower than required in the Pollution Control Strategy
- Farm land has been almost entirely preserved
- Ground water aquifers are being recharged
- If there are specific impacts that are being referenced, please share them.

In conclusion, the Conditional Use is entirely consistent with the Sussex County Comprehensive Plan and Zoning Ordinance and with conditions not objected to by the Sussex County Engineer, has minimal impacts to the site, achieves a number of environmental and cultural benefits including the eventual removal of septic systems and reduces consumer costs through consolidation of infrastructure. We question the legal jurisdiction of DNREC to pose the concerns raised. Furthermore, no material evidence has provided by DNREC demonstrating in what manner it believes that its comments made apply.

Wastewater Permit Issues

- At our recent meeting we agreed to submit the permit applications necessary to construct the wastewater treatment and disposal facilities which are the subject of this Coastal Zone Permit Application pursuant to I.2.f of the Regulations Governing Delaware's Coastal Zone and to have concurrent public hearings on both permit applications.

We trust you find the foregoing to be responsive to your needs. If you have any questions, please advise.

Very truly yours,

CABE ASSOCIATES, INC.

Kenneth L. Davis, P.E.

KLD/LJB/cjk
319-139
cc: Mr. Gerald Esposito
Tidewater Environmental Services, Inc.

Ms. Cathy Bunting-Howarth
DNREC