



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT
7825 Baymeadows Way, Suite B200
Jacksonville, FL 32256-7590

Interoffice Memorandum

TO: Chris Kirts, P.E.
Air Program Administrator

FROM: Andrea Agudelo, P.E.
Stormwater Permitting

DATE: December 29, 2009

SUBJECT: Alachua County – Stormwater Co-Review
Gainesville Renewable Energy Center
Site Certification Application

I have completed my review of the subject site certification application received on December 1, 2009 for the proposed stormwater management system. I have found it to be incomplete and have the following questions/comments:

1. Contour lines in the Pre- and Post-development Drainage Maps, Sheets 1 and 2 of 2, found in Volume 2, Appendix 10.4.2, are labeled incorrectly. Please revise.
2. Please indicate in the plans or in the general notes the vertical datum utilized in the design, North American Vertical Datum (NAVD88) or National Geodetic Vertical Datum (NGVD29).
3. Rule 40B-4.2030(8)(h), FAC, requires detention and retention systems to be designed to provide treatment volumes within 72 hours following the end of the design storm event. For retention systems, only percolation and evapotranspiration may be used to reduce storage and treatment volumes in the system. Please provide a recovery analysis for the swales and the dry retention ponds. Also, specify how runoff is conveyed from the switchyard, and paved/impervious areas into the proposed retention ponds.
4. Rule 40B-4.2030(8)(l), FAC, requires swales to be designed to treat, through percolation or evapotranspiration, a volume of stormwater equal to at least 80% of the runoff resulting from the design storm with a 3-yr, 1-hr rainfall depth. Based on design information and weir elevations provided for the proposed swales along the access road, it appears that most of the swales do not have adequate treatment capacity. Also, it is unclear how runoff from Drainage Areas POST-301, 302, and 108 will be conveyed into the swales and through the culverts under the access road. Please provide revised calculations, design details and site plans.
5. It is not clear how runoff from drainage areas POST-100, 101, and 102 will be collected and conveyed to the proposed wet detention ponds for stormwater treatment and attenuation, since storm sewer pipes and inlets are not shown in the plans. In addition, site plans indicate that a

swale will be provided along the west side of the access road in drainage area POST-102 for stormwater collection and conveyance, however, design details were not included. Please provide.

6. According to Attachment C-Drainage Calculations, Appendix 10.4.2 in Vol. 2, the wet detention ponds are provided with a permanent pool volume that is double the required capacity. Please indicate the need and if the ground water table in the area will be impacted along with the proposed two water supply wells located between the wet ponds.
7. Please provide hydraulic calculations for the three proposed culverts at the beginning of the access road located at STA 1+84, 24" RCP; STA 3+49, 18" RCP, and STA 4+09, 18" RCP. These culverts were not included in the Pipe Size Calculations in Appendix 10.4.2. In addition, please indicate how runoff from new paved areas will be handled, specifically from STA 1+00 to 4+40.

Please feel free to contact me if you have questions.