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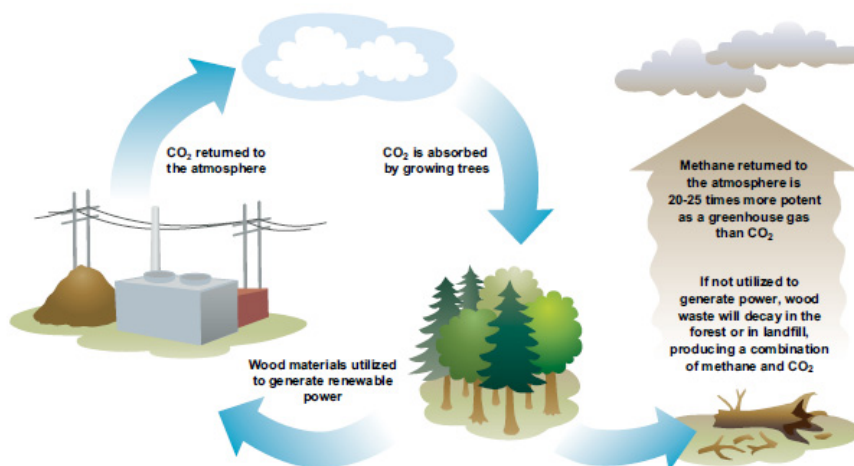
COMPLETENESS RESPONSES

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)
SITING COORDINATION OFFICE
(FDEPSCO)

FDEPSCO-1 1) *According to the application, GREC's use of woody biomass fuel will not result in a net increase of carbon dioxide (CO₂) emissions. Although the growth and decomposition of trees represents a natural atmospheric carbon cycle, woody biomass is generally only considered a carbon neutral source of energy if the level of potential sequestration of trees balances that of tree harvesting. Please justify the assertion that GREC's biomass fuel source is considered carbon neutral and provide supporting references or documentation. Be advised that the Department may require the applicant to comply with a carbon neutral requirement.*

Response:

Woody biomass is considered a *carbon neutral* source of energy because carbon dioxide (CO₂) released by the combustion of renewable woody biomass is already part of the current atmospheric/biospheric carbon cycle and no *new* carbon is being added to the environment. In fact, biomass energy has the potential to achieve a net reduction in greenhouse gas (GHG) emissions, because disposing of woody biomass materials in landfills and/or allowing these materials to decompose naturally will release not only CO₂, but also significant amounts of methane, a GHG that has a global warming potential (GWP) from 20 to 25 times greater than CO₂. Furthermore, biomass energy reduces the need to burn fossil fuels, which release geologically stored carbon that is not part of the current atmospheric carbon cycle. The carbon cycle for renewable woody biomass energy generation is illustrated in the following diagram:



As shown, trees absorb CO₂ from the atmosphere through the process of photosynthesis. During photosynthesis, CO₂ is converted into carbon-based organic matter (e.g., the woody tissue of the tree), and oxygen is released to the atmosphere. Forest residue (e.g., wood waste) is chipped/ground and transported to the biomass-fired power plant where the woody biomass is combusted to generate electricity. During combustion, the carbon in the woody biomass is oxidized and creates CO₂, which is released to the atmosphere. Completing the carbon cycle, the CO₂ released then becomes available for photosynthesis and new tree growth. Forest residue that is not used for power generation and is allowed to decompose naturally will release methane as well as CO₂.

As discussed previously, using woody biomass fuel to generate electricity does not increase the amount of CO₂ in the atmosphere (i.e., there is an equilibrium between the amount of CO₂ released into the atmosphere and the amount of CO₂ removed from the atmosphere). In this regard, using woody biomass as fuel is fundamentally different than using fossil fuels. The combustion of fossil fuels releases *old* carbon that was removed from the atmosphere millions of years ago by plant and animal life and was stored in permanent geologic formations. Thus, the combustion of fossil fuels increases the amount of carbon in the atmosphere.

The generation of electricity using woody biomass requires the combustion of some fossil fuels, which primarily are used to transport the woody biomass to the power plant. Fossil fuels are also used to harvest and process the woody biomass material. The use of these fossil fuels will increase the total CO₂ emissions associated with the operation of the biomass power plant. However, the CO₂ emissions from fossil fuels are offset by the following factors:

- A substantial portion of the woody biomass fuel for GREC will consist of forest residues (wood waste from traditional silviculture practices currently occurring in north-central Florida) that typically are open-burned in the forest or left to naturally decompose.
- The biomass fuel for GREC also will include urban wood wastes that routinely are left to decompose in a landfill or mulch.

- By using these woody biomass materials to generate electricity, GREC will reduce the amount of woody material allowed to be open-burned with no emission control technologies or to decompose.
- As stated previously, decomposition of woody biomass results in the release of methane, as well as CO₂. Methane is a GHG with 20 to 25 times the GWP of CO₂. Thus, reducing the amount of decomposing woody biomass can significantly reduce GHG emissions.

The U.S. Department of Energy, National Renewable Energy Laboratory (NREL), prepared a January 2004 technical report entitled *Biomass Power and Conventional Fossil Systems with and without CO₂ Sequestration – Comparing the Energy Balance, Greenhouse Gas Emissions and Economics*. In its report, NREL evaluated the overall GHG emissions from a biomass-fired electrical power project that was similar to GREC. As part of its evaluation, NREL considered the GHG emissions associated with upstream activities, such as forest silvicultural activities, biomass fuel preparation, and transportation of the fuel to the power plant. NREL also considered the GHG emissions that would be avoided when the woody biomass is used as fuel, instead of decomposing in a landfill or mulch. After analyzing these factors, NREL concluded that the proposed biomass-fired electrical power plant would cause an overall net reduction in GHG emissions. The California Public Utilities Commission (PUC) also supported this conclusion with its Decision 07-01-039 (January 2007), where they stated that “the record shows that electric generation using biomass that would otherwise be disposed of under a variety of conventional methods (such as open burning, forest accumulation, landfills, composting) results in a substantial net reduction in GHG emissions.”

As noted by FDEP, the woody biomass used by GREC must be a renewable energy source to be considered carbon neutral. GREC will use clean, chipped/ground, woody biomass as its primary fuel. This fuel will typically be procured from areas within a 75-mile radius of the GREC Site. As described in Subsection 4.3.2 of the GREC SCA, the power purchase agreement (PPA) between GREC LLC and Gainesville Regional Utilities (GRU) includes a set of stringent standards for ensuring the sustainability of the forest-derived biomass fuels used by GREC. The PPA also includes a forest stewardship

incentive plan to reward growers that provide a higher level of forest biological protection than is required by the minimum sustainability standards within the PPA. The stringent and comprehensive forest management practices that are required within the PPA will ensure that the forest residue used by GREC is a renewable energy source (i.e., the forest residue will only be obtained from forests that are harvested in a sustainable manner).

GREC will promote improved forest management practices by purchasing woody biomass materials that are harvested in compliance with the PPA. In this fashion, GREC will encourage periodic forest thinning, in addition to encouraging other positive silviculture practices. Timely and appropriate thinning of the forest promotes the growth of larger trees, which results in the increased sequestration of CO₂, as well as reduces the potential for severe forest fires.

In light of the information set forth previously, it is reasonable to conclude that GREC will be carbon neutral. Indeed, the NREL report and California PUC order indicate that GREC has the potential to reduce overall GHG emissions. GREC's actual impact on GHG emissions will depend upon a number of variables (e.g., the exact locations of GREC's fuel suppliers; the exact quantity of wood waste that will be used for fuel, instead of being allowed to decompose; and the fuel efficiency of the equipment used to process and transport the biomass fuel).

It is unnecessary and inappropriate for FDEP to impose a condition of certification requiring GREC to be carbon neutral for the following reasons:

- GREC will be required to comply with any future GHG rules pursuant to Section 403.511(5), F.S., which requires all power plants certified under the PPSA to comply with any newly adopted rules that establish more stringent applicable requirements.
- Actual GHG emissions from GREC will depend on several variables that are not reasonably within the control of GREC LLC. GREC LLC should not be required to comply with a condition of certification that GREC LLC may not be able to meet, notwithstanding its best efforts.

- GREC will be subject to the applicable provisions of U.S. Environmental Protection Agency's (EPA's) recently promulgated Mandatory Reporting of Greenhouse Gases Rule. This reporting rule, which requires GHG monitoring beginning January 1, 2010, will provide FDEP with accurate and comprehensive data of actual GHG emissions for GREC as well as other Florida GHG emission sources.
- GREC will be operated in compliance with the requirements in the GREC LLC/GRU PPA. The PPA requirements were carefully designed to ensure that GREC is operated in a manner that is responsible, sustainable, and environmentally protective. It is not obvious that FDEP's proposed condition would provide any meaningful environmental benefits that are not provided by the PPA.
- If FDEP imposes a condition under the PPSA that requires GREC to be carbon neutral, GREC LLC will suffer a competitive disadvantage when compared with any power plant that is not subject to the same requirement. To the best of our knowledge, there is no such requirement imposed on the biomass-fired plant proposed by ADAGE in Hamilton County, and there is no such requirement imposed on any fossil fuel-fired power plant in Florida.
- FDEP's proposed carbon neutral requirement will impose additional regulatory burdens on GREC, and, thus, it will be contrary to the state and federal policies promoting the development of new electrical power plants that use renewable sources of energy.
- It appears that FDEP does not have the statutory or regulatory authority to impose a carbon neutral requirement on GREC. FDEP has not adopted any rules that are applicable here and would require GREC to comply with a carbon neutral requirement. The Florida Legislature has not given statutory authority to FDEP to impose a carbon neutral requirement in this case. Without any rules or statutory authorization, there is no legal basis for imposing the proposed carbon neutral requirement.

FDEPSCO-2 2) Please provide more details regarding the off-site fuel processing (i.e. sorting/chipping) locations discussed in Section 4.3 of the application. It is unclear as to whether these are independently owned and pre-existing facilities; it is also unclear whether the off-site fuel processing facilities would be constructed primarily for the purpose of supporting GREC.

Response:

The primary biomass fuel that GREC will use in its operations will be forest residues (i.e., woody biomass material left over from traditional silviculture operations that are presently occurring in north-central Florida) collected from a 75-mile radius around GREC. These forest residues mainly consist of the tops and limbs that are currently left on the forest floor or are piled and open burned in the forest. Rather than allowing the forest residues to decompose or be open burned, these materials can be fed through a mobile grinder or chipper in the forest and made into a fuel chip that can be used at GREC. A small mobile crane will be used to feed the forest residue into a mobile grinder/chipper. The grinder/chipper will blow the fuel chips directly into the back of a chip van (i.e., a covered or enclosed truck), which will deliver the biomass material to GREC. The offsite processing locations discussed in Section 4.3 will use this process to prepare the fuel for GREC.

The offsite processing of the forest residue will occur in temporary locations in the forest where the traditional timber harvesting occurs. This biomass processing activity will take place in many different locations throughout the 75-mile radius around GREC. The exact location of a processing site and the exact time when a site is used will depend on the timing and location of the timber harvests. It is anticipated that the grinding/chipping process at a particular location typically will last from a few days to 2 weeks, depending on the size of the timber harvest. When the process is completed at one location, the mobile processing equipment will be moved to a new site. The processing of forest residue is not expected to involve any permanent, fixed equipment.

The companies/individuals conducting this process are independently owned and will be contracted by GREC to deliver the material to the biomass energy facility. Currently, there are a number of independent suppliers with grinding/chipping operations in north-

central Florida. The demand for biomass material for GREC may encourage new entrants into this market. GREC does not intend to build, own, or operate any offsite fuel processing equipment or facilities.

Biomass material from urban wood wastes (i.e., woody waste material from right-of-way clearings, land clearing activities, as well as storm or diseased debris) will also be used as fuel at GREC. This material will be collected within 75 miles of GREC. The urban wood wastes may be processed with mobile equipment at temporary locations, where the wood waste is generated, in the same way that the forest residue is processed. In some cases, the urban wood waste may be taken to an existing landfill and stockpiled until the wood waste is processed with mobile or permanent equipment. The urban wood wastes also may be taken to an existing processing facility to be ground or chipped before being sent to GREC. There are a number of independent processing facilities currently operating in the region, including one that is less than 5 miles from the GREC Site.

FDEPSCO-3 3) Please provide more details regarding transportation of the fuel sources to the GREC site. Does GREC plan to contract out these services, maintain their own fleet, or a combination thereof?

Response:

The biomass material used to fuel GREC will be delivered to the Site in processed form only (i.e. ground or chipped) and will be delivered in chip vans, which are typical eighteen-wheel tractor trailers that are covered or enclosed. These chip vans will be independently owned and will be contracted by GREC to deliver the biomass material to the facility. GREC does not intend to own its own fleet of chip vans.

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT OFFICE
GROUNDWATER SECTION
(FDEPNEDGW)**

B. Northeast District Office – Ground Water Section:

FDEPNEDGW-1 1) Although a zero liquid discharge (ZLD) is proposed for all wastewater, a ground water monitoring plan for Water Facilities Program related activities is requested as an indicator system. In order to provide both pre- and postoperational monitoring, please submit a proposed ground water monitoring plan with a response to this correspondence. This plan should include background and compliance well monitoring.

Response:

Based on further consultation with the FDEP, Northeast District Office, Groundwater Section, FDEP has determined that groundwater monitoring will not be required at GREC because GREC will not have any discharges to groundwater. Based on this determination, FDEP has also concluded that no additional information is needed, and no responses are required, for the Groundwater Section's completeness questions in items FDEPNEDGW-1 through FDEPNEDGW-5 and FDEPNEDGW-7 through FDEPNEDGW-11. Therefore, no response to this item is being provided by GREC LLC.

FDEPNEDGW-2 2) Since there is a ZLD proposed for all wastewaters, a zone of discharge (ZOD) will not be established at this facility for Water Facilities Program related activities. Although the GRU-Deerhaven Power Plant has an existing ZOD that extends to their current property lines, it does not include any new activities.

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-3 3) *Please clarify if temporary storage areas will be used for the clarifier solids, crystallizer solids\wet salt cake\brine concentrate, chemical metal cleaning wastes, floor drainage, or any other wastewater byproducts, prior to transportation to an off-site landfill. Approximate amounts, storage time frames, and details of storage system should be provided, also.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-4 4) *On Figure 4.2.0-3, the Detailed Facility Layout does not seem to indicate a boiler blowdown or cooling tower blowdown holding area. Please address this issue and provide details of any applicable holding tanks\basins.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-5 5) *Please provide flow diagrams of all Industrial and Domestic wastewater streams, including all wastewater and water treatment systems, along with locations and details of all storage areas and chemical treatment systems.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-6 6) *Section 4.6 of Volume One indicates non-hazardous laboratory waste will be discharged to plant drain and partially used for dust control. Due to the nature of some laboratory waste, it is requested that this waste be routed to the ZLD system, or 100 % used for cooling tower makeup.*

Response:

As requested by FDEP, all nonhazardous laboratory wastes will be collected and routed to the zero liquid discharge (ZLD) system or to the cooling tower basin and used as cooling tower makeup. No laboratory wastes will be discharged to plant drains or partially

used for dust control. This response supersedes the information contained in Section 4.6 of the SCA.

FDEPNEDGW-7 7) *It is indicated that clay liners are proposed under the fuel storage areas. Please provide details on the clay liners (i.e.: final compaction rates, thickness, final permeability rate, source of clay, type of clay, distance to surficial aquifer from bottom of liners, existing grade, proposed grade, elevations, secondary containment system, etc.). In addition, please include preventative and corrective measures if the liners are breached by equipment, fractured, etc.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-8 8) *Please clarify if runoff swales and ponds are proposed around the fuel storage areas, and provide details on Figure 4.2.0-3, or similar figure, including details of any liners. If no runoff swales or ponds are proposed, then provide details of fuel storage area design that prohibits runoff. Use of a layer of compacted wood chips above the clay liner would not provide a sufficient barrier.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-9 9) *Due to naturally occurring organic acids that may leach from the wood material in the fuel storage areas, there is concern with the effects of potentially acidic leachate on the clay liners. Please address this issue, and provide data to support the long-term integrity of clay liners.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-10 10) *Please provide source for results in Table 4.3.4-1, Typical Constituent Analysis of Wood Fuel.*

Response:

See response to item FDEPNEDGW-1.

FDEPNEDGW-11 11) According to the analysis of the wood fuel, nitrate and sulfate may be constituents of concern. Additional constituents may include total dissolved solids, total phosphate, pH, and specific conductivity. A list of parameters and frequency of monitoring should be included with the proposed ground water monitoring plan.

Response:

See response to item FDEPNEDGW-1.

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT OFFICE
POTABLE WATER SECTION
(FDEPNEDPW)**

As presented in Subsection 4.5.3 and Appendix 10.12 of the SCA, GREC LLC currently anticipates that the potable water needs for GREC will be satisfied by using two potable water supply systems: (1) a nontransient, noncommunity water system (NTNCWS), and (2) a limited use water system (LUWS). The NTNCWS will provide potable water for drinking, restrooms, showers, eyewash, and other uses in the administration building, control room, warehouse/maintenance building, and other operating plant areas. The NTNCWS must be approved by FDEP. The LUWS will provide potable water for drinking, restrooms, eyewash, and similar uses at the scale house and must be approved by the Alachua County Health Department.

However, the plans, designs, and specifications for these potable water systems have not been finalized at this time and may be refined during the detailed engineering/design efforts for the facilities. Consequently, some of the information requested by the FDEP Northeast District Office Potable Water Section is currently unavailable. Therefore, GREC LLC recommends that the potable water system requirements and approvals be addressed through postcertification submittals and related conditions of certification. GREC LLC has prepared proposed conditions of certification to address the potable water system requirements and those proposed conditions are provided in the following responses to the FDEP's informational requests.

FDEPNEDPW-1 1) Will the potable water system comply with requirements as found in Chapters 62-550, 62-555, 62-560, 62-521, and 62-699, Florida Administrative Code (F.A.C.)? These rules can be found at <http://www.dep.state.fl.us/water/rulesprog.htm#dw>

Response:

Yes, the potable water system will comply with all of the applicable FDEP rules. GREC LLC's proposed condition of certification to meet the specified requirements is as follows:

“The nontransient, noncommunity potable water system for GREC shall be designed and operated in conformance with the applicable provisions of Chapters 62-550, 62-555, 62-560, 62-521, and 62-699, F.A.C. The information required in Chapters 62-550, 62-555, 62-560, and 62-699, F.A.C., shall be submitted to the Department’s Northeast District Office, Potable Water Section, and the Siting Coordination Office prior to construction and operation of the potable water system.”

FDEPNEDPW-2 2) Will the potable well(s) be constructed according to public well standards found in Chapter 62-532, F.A.C.? Especially be aware of required setbacks for the potable water well. The setback for fuel tanks are at least 50 feet if the tank is above ground and double walled, 100 feet if otherwise.

Response:

Yes, the potable wells will be constructed in compliance with the public well standards in Chapter 62-532, F.A.C. GREC LLC’s proposed condition of certification to address this item is as follows:

“All the potable water supply well(s) for GREC shall be constructed according to the applicable public well standards in Chapter 62-532, F.A.C., and shall comply with the required setbacks in Section 62-555.312, F.A.C.”

FDEPNEDPW-3 3) A Preliminary Design Report (PDR) or specifications, details, and design drawings are required for approval of a potable water system. The list of requirements for a PDR can be found in subsection 62-555.520(4), F.A.C.

Response:

GREC LLC will comply with this requirement when the final plans and designs for the potable water system are completed. GREC LLC’s proposed condition of certification to address this item is as follows:

“A preliminary design report or specifications, details, and design drawings shall be submitted to the Department’s Northeast District Office, Potable Water Section, and the Siting Office prior to construction and use of the potable water system for GREC. The Licensee (GREC LLC) shall comply with the list of requirements for a preliminary design report (PDR) in Rule 62-555.520(4), F.A.C.”

FDEPNEDPW-4 4) On Appendix 10.12; Please note that the application form was not filled out properly. The person who signs on page 2; part I; item I, needs to match with page 1; section I; item H, which would be the person that will own the project after it is placed into permanent operation. Please match the signatures.

Response:

FDEP's Form 62-555.900(1) will be properly completed, signed, and submitted when GREC LLC submits the information needed to satisfy the requirements of the proposed condition of certification for Item FDEPNEDPW-1.

FDEPNEDPW-5 5) Subsection 62-555.520(2), F.A.C., requires all permit applicants to submit to the Department DEP Form 62-555.900(1) executed in full, containing original signatures. Section II.B needs to be completed with signature and date as well as completing the information required in the corresponding Section II.D which includes signature, seal and date. Also, provide calculations for the new Total Permitted Maximum Day Operating Capacity of Plant.

Response:

FDEP's Form 62-555.900(1) will be properly completed, signed, and submitted in conjunction with the requirements of the proposed condition of certification in Item FDEPNEDPW-1.

FDEPNEDPW-6 6) The limited-use potable water system will need to be permitted through the Alachua County Dept. of Health.

Response:

GREC LLC's proposed condition of certification to address this item is as follows:

“The limited use potable water system for GREC shall be constructed and operated in accordance with the applicable requirements of Section 381.0062, F.S., and Chapter 64E-8, F.A.C. Florida Department of Health Form DH 4092B and other required information shall be submitted to the Alachua County Health Department and the Department's Siting Coordination Office for approval prior to construction and operation of the potable water system.”

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST DISTRICT OFFICE
STORMWATER SECTION
(FDEPNEDSW)**

The revised stormwater management plans presented in Attachments B and C of this document provide the clarifications and additional information requested by the FDEP Northeast District Office, Stormwater Section. These revised plans also include minor amendments to the facility/site layout plans that were contained in the original SCA. These minor amendments do not substantially change the stormwater management system.

FDEPNEDSW-1 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.

Response:

The labels of the contour lines are correct; however, due to the size of the plans (11 by 17 inches), the labels were not legible. Full size plans (24 by 36 inches) were provided to FDEP, Northeast District Office, Stormwater Section, separately on January 11, 2010.

FDEPNEDSW-2 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).

Response:

Referenced datum is North American vertical datum of 1988 (NAVD88) as shown in the notes in the boundary and topographic survey plan, sheet 1 of 5 in Attachment B to this document.

FDEPNEDSW-3 3) Paragraph 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.

Response:

Recovery analysis for dry retention system and swales are provided in a summary table of the revised stormwater management plans (see drainage calculations, pages 23 and 24) in Attachment B to this document and are included in the attached compact disc (CD) (stormwater management plan).

Conveyance of runoff into the proposed stormwater systems is shown in the grading plans (see sheets C2.20, C2.21, and C2.22 in Attachment B). These drawings are also included in the attached CD (stormwater management plan).

FDEPNEDSW-4 4) Paragraph 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.

Response:

Swales have been designed to treat 80 percent of the runoff. Treatment volumes and weir elevations are shown in a summary table of the stormwater management plans (see drainage calculations, page 24) to verify that the swales have adequate capacity.

Runoff of drainage areas 108, 301, and 302 will not discharge into the swales but will instead bypass the swales and discharge into the downstream areas through culverts under

the access roadway as existing conditions (see revised pipe size calculations and plans [sheet C6.04 and C6.05 in Attachment B]).

FDEPNEDSW-5 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.

Response:

Proposed grading for areas 100, 101, and 102 and stormpipe calculations are provided in Attachment C to this document, Final Grading Plan by Zachry. Details of the conveyance system (French drain) are included in the final grading plan by Zachry.

FDEPNEDSW-6 6) According to Attachment C-Drainage Calculations, Appendix 10.4.2 in Volume 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.

Response:

Required permanent pool volume for wet detention systems is designed to meet two requirements: (1) provide volume for wet residence time of 21 days and, (2) maintain a mean depth of between 2 to 8 ft. To meet both of these requirements, the provided volume is required to be larger than the minimum required (see drainage calculations, page 25 of Attachment B).

As discussed in Subsection 3.3.2 of the SCA, the groundwater table on the GREC Site generally occurs within 6 ft of land surface and is commonly found at 2 to 4 ft below land surface, depending on the season. The groundwater table tends to fluctuate approximately 5 ft through the annual seasons. The wet detention ponds are not expected to significantly impact the groundwater table, and the water levels in the ponds will generally reflect the

normal levels and fluctuations in the groundwater table. The proposed two water supply wells will be used to withdraw water from the Floridan aquifer system (FAS) at a depth of 200 to 550 ft below land surface. As discussed in Subsection 3.3.2 of the SCA, the groundwater table (i.e., surficial aquifer system) and the wet detention ponds will not be affected by the FAS withdrawals or vice versa due to the presence of a confining unit that effectively separates the groundwater table from the FAS at the GREC Site.

FDEPNEDSW-7 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.

Response:

Hydraulic calculations for proposed culverts at the beginning of the roadway are provided in the drainage calculations in Attachment B to this document. The increase of impervious area is minimal; therefore, the additional runoff will be treated by the proposed grassed areas located at the edge of the road (sheet 6.00).

**SUWANNEE RIVER WATER MANAGEMENT DISTRICT
(SRWMD)**

ITEM II: SUWANNEE RIVER WATER MANAGEMENT DISTRICT

SRWMD-1 1) Please provide additional information on the frequency and duration of maximum daily water usage.

Response:

The primary water usage for GREC will be for cooling tower makeup to replace water lost through evaporation. The plant is a ZLD design, so the balance of water usage is recycled. The cooling tower is an evaporative design that provides cooling based on the wet bulb temperature. The evaporative cooling tower works by allowing a small portion of the water being cooled to evaporate into the moving air stream, which will provide cooling to the rest of the water stream. In the case of the GREC cooling tower, the total plant maximum daily water usage will be 1.5 million gallons per day (MGD) with a normal maximum based on 1.447 MGD that includes 1.402 MGD going to evaporation and drift loss. The balance is used for dust control and other losses. Annual average daily usage will be 1.4 MGD. The cooling system will operate 24 hours per day, unless the facility is offline for maintenance or dispatched offline by GRU.

Since water usage is related to wet bulb temperature, usage varies on an hourly basis as a result of changes in the ambient conditions as well as changes in electric loads. The maximum case water usage is based on full load operation and the 1-percent wet bulb case (78 degrees Fahrenheit [°F]). This represents summer conditions. Figure SRWMD-1 provides a curve showing the water usage variation by month. The maximum water usage will be for 60 days or less.

SRWMD-2 2) Please be advised, reduction in groundwater allocation for Deerhaven Generating Station does not qualify as an offset of actual groundwater usage and does not generate additional water available for use within the Florida Aquifer.

Response:

This comment is noted.

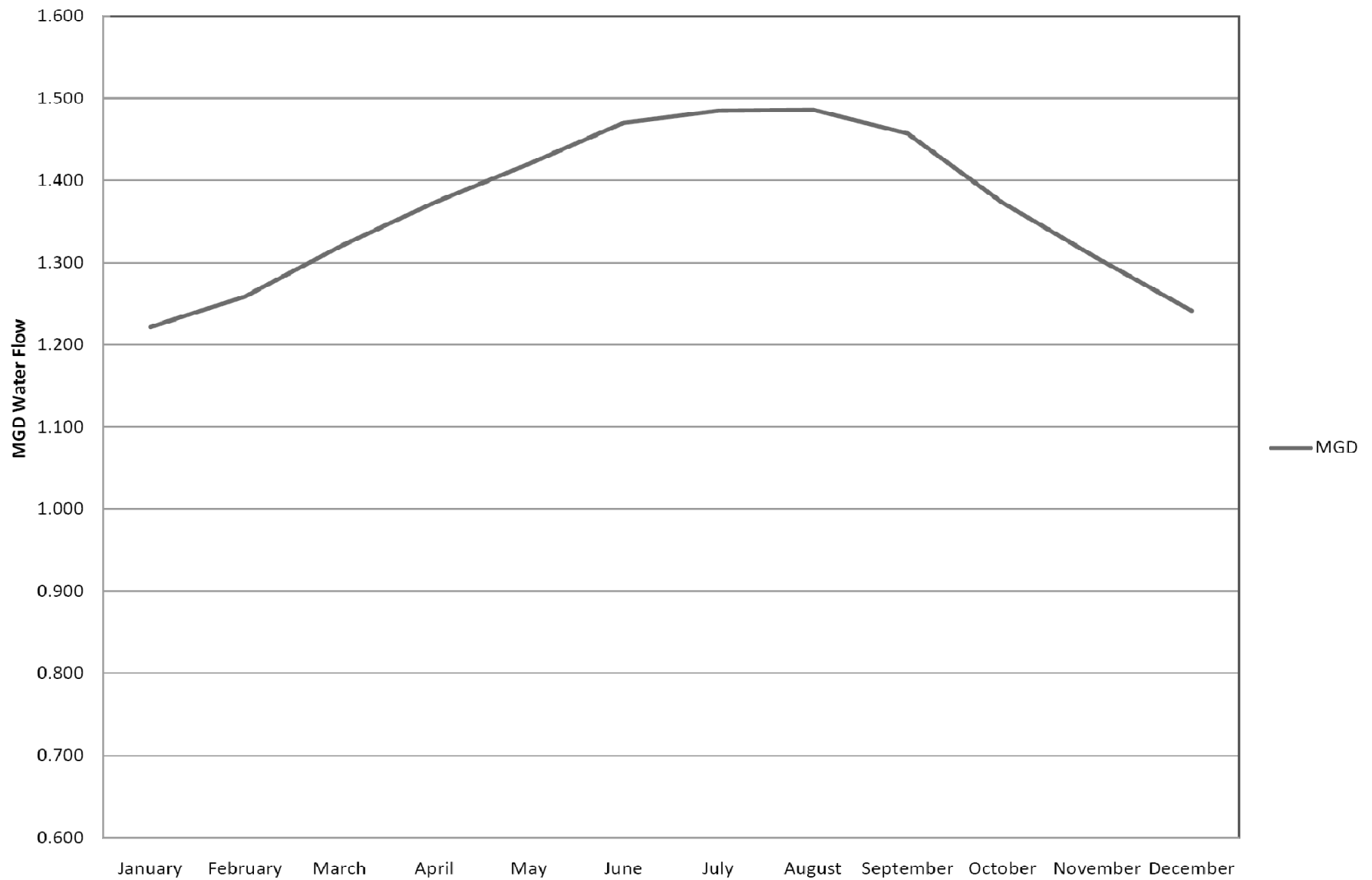


FIGURE SRWMD-1.

AVERAGE MONTHLY WATER USAGE FOR GREC

Sources: Zachry, 1010. GREC LLC, 2010.

SRWMD-3 3) Please provide justification for cost associated with reuse feasibility studies, particularly the City of Alachua's reclaimed water. Please include a breakdown of cost associated with pipeline, storage and modification of system based on recent cost data specific to this area.

Response:

As discussed in the Alternative Water Supply Feasibility Assessment report in Attachment 3 of Appendix 10.8 of the SCA, the use of the City of Alachua's reclaimed water would require the design, permitting, and construction of a new pipeline. The new pipeline would be approximately 2.1 miles (i.e., 11,270 ft) in length and would run from the city's existing pipeline to the Turkey Creek Golf Course to the GREC Site.

To the extent possible, the new pipeline route will parallel existing roadways. However, the construction of the new pipeline will involve crossing under U.S. Highway 441 (U.S. 441) and the existing utilities that are located along the highway. The new pipeline also must cross under the CSX Transportation, Inc. (CSX), railroad track and run through some residential areas.

The alternative water supply feasibility assessment did not evaluate the potential issues associated with obtaining easements for the U.S. 441 crossing, the CSX crossing, and the remainder of the pipeline route. Nonetheless, it is anticipated that it will be difficult, time-consuming, and expensive to obtain all of these easements. One or more of these easements may be unobtainable because GREC LLC does not have the power of eminent domain.

As part of the feasibility assessment concerning the use of the City of Alachua's reclaimed water, GREC LLC developed a preliminary cost estimate of approximately \$2 million (2009 \$) to design and construct the new pipeline. For estimating purposes, the pipeline was assumed to consist of a 10-inch polyvinyl chloride (PVC) pipe, which is similar in size to the existing city pipeline along U.S. 441. The preliminary cost estimate was developed using standard estimating methods and information from cost estimating reference manuals such as RS Means, as well as contacts with local contractors in the

north Florida area. Table SRWMD-1 provides a breakdown of the estimated cost for the design and construction of the new pipeline. As indicated in the table, the estimate does not include costs for obtaining easements or for any needed relocations of existing utilities.

As discussed in the feasibility assessment, the use of the City of Alachua's reclaimed water may also require additional onsite treatment, mixing, and storage facilities. The potential need and specific design (i.e., type of treatment, size of tanks, etc.) of these additional facilities is uncertain at this time because these details are dependent on the future quality of the reclaimed water after the upgrades and expansion of the city's wastewater treatment facilities are completed in 2011. For the feasibility assessment, GREC LLC assumed that these additional facilities may potentially involve approximately \$500,000 in capital costs and between \$50,000 and \$100,000 per year in operation and maintenance costs. These are preliminary estimates because the specific details and requirements for any needed additional facilities are unknown at this time.

SRWMD-4 4) Please provide justification as to the feasibility of using ground water as a standby supply to supplement available reclaimed water.

Response:

This issue is discussed in the alternative water supply feasibility assessment, which is contained in Attachment 3 of Appendix 10.8 of the SCA. As explained in the feasibility assessment, it is not feasible at this time to use reclaimed water from either the City of Alachua or the City of Gainesville as an alternative water supply for GREC. This conclusion is primarily based on (a) the excessive, additional costs associated with constructing a pipeline to deliver reclaimed water to the GREC Site; (b) the uncertainties associated with the quality, quantity, and availability of the reclaimed water; and (c) the potential additional costs for onsite reclaimed water treatment and storage. At the current time, the quantity of reclaimed water available from the City of Alachua would only supply approximately 30 to 40 percent of the GREC water needs, even if all of the reclaimed water were provided to GREC, rather than the Turkey Creek Golf Course. It should be noted that if all reclaimed water was diverted to GREC, the golf course would need to increase its groundwater withdrawals for irrigation purposes.

Table SRWMD-1. Estimated Cost for Reclaimed Water Pipeline from City of Alachua Reclaimed Water System to
GREC Facilities

Description	Manhours	Labor	Material	Total Amount
Direct Construction				
1. Excavation/backfill total	3,180	\$238,500	\$20,000	\$258,500
2. Concrete total	0	0	0	0
3. River excavation total	0	0	0	0
4. Jacking beneath railroad total	326	\$20,193	\$10,181	\$30,373
5. Jacking beneath road total	322	\$30,636	\$8,960	\$39,596
6. Road crossing total	142	\$7,733	\$5,918	\$13,650
7. Stream crossing total	0	0	0	0
8. Landscaping total	300	\$22,500	\$15,000	\$37,500
9. Mechanical total 10" pvc	3,050	\$228,750	\$495,000	\$723,750
10. I&C total	160	\$8,322	\$16,000	\$24,322
11. Electric total	0	0	0	0
Total Direct Construction Costs	7,481	556,634	571,058	1,127,692
Indirect Construction Costs				
Construction equipment				w/directs
Small tools and consumables				w/directs
Support labor				N/A
Startup activities				
Other indirects				
Total Indirect Construction Costs				\$0
Professional Services Costs				
A/E services				150,000
Startup, testing, and training				Included
Field office (2 personnel)				60,000
Home office				Included
Misc./use/borings/etc.				50,000
Legal				50,000
Permit				50,000
Survey				50,000
Total Professional Services Costs				\$410,000
Other Project Costs				
Total Other Project Costs				\$0
Estimated Project Cost				\$1,537,692
Contingency @ 10%	10.00%			153,769
Subtotal				1,691,461
17.5% Profit/overhead				296,005
Total Project Cost				1,987,466

Basis 11,270 ft 10-inch PVC pipe:

- Current day cost
- Water for test by others
- No rock excavation
- Right of way available including access; costs for right-of-way/easements not included
- No underground utilities -interferences/relocations
- No overhead utilities -interferences/relocations
- Clear and grub allowance

Source: GREC LLC, 2009.

As discussed in the feasibility assessment report in the SCA and discussed with SRWMD staff, GREC LLC will use reclaimed water as an alternative or supplemental water supply for cooling tower makeup in the future if reclaimed water is reasonably available and economically feasible for GREC. Based on further discussions with SRWMD staff, GREC LLC will strengthen its commitment to reduce future groundwater use for GREC and will agree to conditions of certification that require the use of reclaimed water for all or part of GREC's cooling tower makeup needs by a specific date after the start of commercial operations. GREC LLC proposes that SRWMD consider the following conditions of certification regarding the use of reclaimed water for GREC:

1. "The Licensee (GREC LLC) shall provide to the District a written implementation plan and schedule for the use of reclaimed water to meet all or part of the cooling tower makeup needs for GREC no later than 5 years after the commercial operation date (COD) of GREC. The plan shall include the identification of the supply of reclaimed water; the anticipated uncommitted amount of the supply; the plans, facilities, and estimated costs for providing the reclaimed water to the GREC Site; and the schedule to begin the use of the reclaimed water no later than 7 years after the COD of GREC. Based on the District's review and approval of the implementation plan and schedule, the Licensee shall implement the plan for the use of reclaimed water according to the approved schedule and the conditions of certification shall be modified to require the use of reclaimed water, to the extent feasible, to reduce groundwater use for GREC."
2. "In the event that an uncommitted, reasonable reclaimed water supply becomes available or is definitively scheduled to become available at the GREC Site boundary to meet all or part of the cooling tower makeup water needs prior to the required schedule in Condition 1, the Licensee shall provide the District a written implementation plan and schedule for using the reclaimed water. Based on the District's review and approval of the plan and schedule, the Licensee shall implement the plan and the conditions of certification shall be modified to require the use of reclaimed water to the extent feasible, to reduce groundwater use."

3. “If reclaimed water is used to supply all or part of the cooling tower makeup needs, groundwater use shall continue to be allowed for plant process and potable water uses and, to the extent necessary, as supplemental or contingency water supply for cooling tower makeup.”

In addition, to reduce potential future groundwater use in the GREC Site vicinity, GREC LLC and GRU have an agreement whereby GRU will reduce its existing approved groundwater use allocation for Deerhaven Generating Station (DGS) by 1.4 MGD after certification is approved for GREC and prior to the start of GREC commercial operation.

SRWMD-5 5) Please provide a yearly schedule, including start-up, for proposed water use.

Response:

The water usage for GREC will start approximately 18 months after the start of construction, which is planned for January 2011. Initial water usage will begin by approximately July 2012, and it will be less than 100,000 gallons per day (gpd). Six months prior to commercial operation (November 2013), water usage will be increased to approximately 1.2 MGD for the testing and commissioning of GREC. During this phase of the project (May through October 2013), some hourly usage will be at the maximum flow rates, but the average daily usage will be less. After November 2013, the plant will be in commercial operation and will be using the average daily and monthly amounts shown in Figure SRWMD-1. After the start of commercial operation, the facility will operate with a 90-percent or better availability. The facility is dispatchable under the GRU power contract and may be operated at a reduced load (70 percent minimum) or shut off. The facility will be shut down for approximately 2 weeks per year for maintenance.

SRWMD-6 6) Please provide information on the seasonality of the water use.

Response:

The curve in Figure SRWMD-1 in the response to SRWMD-1 shows the expected monthly variation, in water use.

SRWMD-7 7) Please provide assurance that the proposed withdrawal will not cause harm to the Lower Santa Fe River and springs, particularly Hornsby Springs. The District's current draft of the proposed MFL for the Lower Santa Fe River and springs limits the reduction of river and spring flow to no more than a cumulative reduction of 4.7% at all river gaging locations and for each individual spring. The evaluation should be conducted on an individual and cumulative basis.

Response:

Based on further consultation with SRWMD staff, it is GREC LLC's understanding that SRWMD has recently conducted modeling using its North Florida Model to evaluate the effects of the individual proposed GREC withdrawal and cumulative groundwater withdrawals on the current draft of the *proposed* minimum flows and levels (MFLs) for the Lower Santa Fe River and springs. It is also GREC LLC's understanding that the schedule for SRWMD to adopt final MFLs for the Lower Santa Fe River and springs is relatively uncertain at this time and that SRWMD is currently planning certain revisions and improvements in its North Florida Model, which is used for MFL evaluations. Therefore, the results of the evaluation of the individual GREC and cumulative groundwater withdrawals on the MFLs for the Lower Santa Fe River may be subject to change depending on the final adopted MFLs and/or the revised North Florida Model.

To provide assurance that the proposed groundwater withdrawals for GREC will not potentially cause harm in the future to the Lower Santa Fe River and springs, GREC LLC will agree to conditions of certification requiring the use of reclaimed water within a specified time frame or sooner if a reclaimed water supply becomes available at the Site boundary. This commitment will ensure that the future groundwater withdrawals for GREC will be reduced to the extent feasible. GREC LLC's proposed conditions of certification requiring the use of reclaimed water are provided in the response to item SRWMD-4.

SRWMD-8 8) Please be aware that since the development of the draft Lower Santa Fe River MFL technical document, additional legal users have received water use permits, thus potentially reducing the available water.

Response:

The comment is noted.

SRWMD-9 9) Please provide a description of the actions GREC plans to take to reduce their water demands during a water shortage order issued by the District pursuant to Chapter 40B-21, F.A.C.

Response:

GREC LLC recognizes that all water users may be required to reduce or cease water use in the event that SRWMD issues a water shortage order pursuant to Chapter 40B-21, F.A.C. Water for cooling tower makeup, boiler makeup, and other plant process water uses is essential for the operation of GREC. The requested groundwater use requirements for GREC of 1.4 MGD on an annual average basis and 1.5 MGD on a maximum daily basis are based on the plant operating at 100-percent load or capacity. GREC will be capable of operating at somewhat reduced capacity, but 70 percent is the minimum load for safe operations. For a power plant such as GREC, the volume of water needed for operations is relatively equivalent to the operating load of the plant. Therefore, in the event of a declared water shortage, GREC would be able to reduce its operating load to 70 percent and, in turn, reduce water use to approximately 70 percent of the full load requirements. Of course, under these operating conditions, the power plant would be generating 30 percent less electricity for the region.

To address SRWMD's comments about water shortages, GREC LLC suggests that SRWMD impose a condition of certification that requires compliance with any ordered water use reductions in accordance with SRWMD's water shortage plan. The condition of certification should not include specific actions to be taken by GREC because any such actions may be highly dependent on the conditions and essential needs at the time of the shortage. This approach and this type of condition of certification are similar to those used by other water management districts for power plants within their jurisdictions. GREC LLC's proposed condition of certification to meet the water shortage requirement is as follows:

“In the event the District declares a water shortage pursuant to Chapter 40B-21, F.A.C., the Licensee must comply with any water withdrawal reductions ordered by the District to address the water shortage.”

**FLORIDA FISH & WILDLIFE CONSERVATION COMMISSION
(FWC)**

**FWC-INTRO ITEM III: FLORIDA FISH AND WILDLIFE CONSERVATION
COMMISSION**

Based on a Geographical Information System (GIS) analysis of the proposed project site, the following imperiled species and associated habitats were identified:

- *16 protected species potentially occur onsite or in the vicinity of the proposed site (see table below)*
- *Historical wading bird rookery*
- *Florida Natural Areas Inventory-identified rare species habitat for the eastern indigo snake*
- *FWC-identified potential habitat and priorities wetlands for Florida black bear and wading birds*

<i>Common Name</i>	<i>Scientific Name</i>	<i>Status*</i>
<i>Gopher frog</i>	<i><u>Rana capito</u></i>	<i>SSC</i>
<i>Gopher tortoise</i>	<i><u>Gopherus polyphemus</u></i>	<i>ST</i>
<i>Florida pine snake</i>	<i><u>Pituophis melanoleucus mugitus</u></i>	<i>SSC</i>
<i>Eastern indigo snake</i>	<i><u>Drymarchon corais couperi</u></i>	<i>ST; FT</i>
<i>Tricolored heron</i>	<i><u>Egretta tricolor</u></i>	<i>SSC</i>
<i>Little blue heron</i>	<i><u>Egretta caerulea</u></i>	<i>SSC</i>
<i>Limpkin</i>	<i><u>Aramus guarauna</u></i>	<i>SSC</i>
<i>Snowy egret</i>	<i><u>Egretta thula</u></i>	<i>SSC</i>
<i>White ibis</i>	<i><u>Eudocimus albus</u></i>	<i>SSC</i>
<i>Bald eagle</i>	<i><u>Haliaeetus leucocephalus</u></i>	<i>P</i>
<i>Florida sandhill crane</i>	<i><u>Grus canadensis pratensis</u></i>	<i>ST</i>
<i>Southeastern American kestrel</i>	<i><u>Falco sparverius paulus</u></i>	<i>ST</i>
<i>Wood stork</i>	<i><u>Mycteria americana</u></i>	<i>SE; FE</i>
<i>Sherman's fox squirrel</i>	<i><u>Sciurus niger shermani</u></i>	<i>SSC</i>
<i>Florida black bear</i>	<i><u>Ursus americanus floridanus</u></i>	<i>ST</i>

**SSC = species of special concern.*

ST = state threatened.

SE = state endangered.

FT = federally threatened.

FE = federally endangered.

P = protected under federal law and state management plan.

Response:

Comment noted. All 16 species were identified and discussed in the GREC SCA in Sub-section 3.3.6. Tables 3.3.6-1 and 3.3.6-3 list the status of those species onsite.

FWC-1 Issues and Recommendations

- 1) Issue: The SCA aerial maps provided identify habitats based on the Florida Land Use and [sic]cover Forms [sic]classification [sic]system (FLUCFCS). While this is useful for identifying land uses, this classification system is not appropriate for identification of plant communities that provide habitat for wildlife.***
 - a. We recommend that the plant communities be mapped and classified using the Florida Natural Areas Inventory Natural Communities Guide (2009 Version).***

Response:

The FDEP guidelines for completing a SCA require GREC LLC to use the Florida Land Use, Cover and Forms Classification System (FLUCFCS) Level III mapping for the Site's vegetative communities (FDEP Form 62-16.900). The FDEP rules for environmental resource permits (ERP) also require GREC LLC to utilize FLUCFCS for the Uniform Mitigation Assessment Methodology (UMAM) to assess wetland quality and impacts (Section 62-345.400, F.A.C.). The UMAM also takes into consideration wildlife habitat as part of its scoring for wetland quality. The Florida Natural Areas Inventory (FNAI) Natural Communities Guide is currently not a required mapping format for any regulatory process related to power plant licensing and permitting.

GREC LLC is willing to discuss with the Florida Fish and Wildlife Conservation Commission (FWC) any specific habitat concerns for the proposed project. GREC LLC already has discussed this issue with FWC biologist, Stephanie Rousso, and agreed to send her the project geographic information system (GIS) *shape* files, if she wished, to evaluate the Site while using some other vegetation classification system.

FWC-2a 2) *Issue: The SCA acknowledges that imperiled wildlife species were identified onsite, however, the application does not provide information regarding survey methodology including time of year, locations of observations, type of observed activity, etc.*

a. *If it has not already been done, we recommend that a desktop review of potential fish and wildlife issues be performed in advance of appropriate surveys, which should be conducted during the active (i.e., reproductive) season particular to each species.*

Response:

This review has been performed. Please refer to Subsection 3.3.6 of the GREC SCA.

FWC-2b b. *We recommend that the applicant provide a fish and wildlife status report that addresses at least the list of species we have identified in this letter. That report should include the survey methodologies (with source citations) used as well as the timing of the surveys.*

Response:

Please refer to the introductory response (FWC-INTRO). These species were addressed in the GREC SCA in Subsections 3.3.6 and 5.4.1. GREC LLC is also willing to agree to a condition of certification for a preclearing wildlife survey based on FWC-approved methodologies for any listed species that are likely to occur onsite. GREC LLC would propose the following condition of certification:

“GREC LLC shall coordinate with FWC to determine appropriate survey protocols for all listed species that are expected to occur within the project boundaries and associated linear facilities’ corridors.

After certification but prior to land clearing and construction, GREC LLC shall conduct listed species surveys in accordance with survey protocols proposed to and approved by FWC. Surveys will be conducted for listed species likely to be found onsite and conducted in a season to maximize the opportunity to confirm the species’ presence. The results of those species surveys shall be provided to FWC. Coordination shall occur with FWC on appropriate impact mitigation methodologies for listed species identified that may be impacted by the proposed construction-related activities.”

FWC-3 3) *Issue: The SCA indicates that three isolated wetlands would be impacted. Isolated wetlands can provide significant and often endemic breeding habitat for semi-aquatic wildlife species, as well as important foraging habitat for wading birds.*

Response:

The three isolated wetlands mentioned are marginal wetlands that contained no standing water, even during the wet season. City of Gainesville and FDEP biologists visited the Site and did not disagree with the characterization of the quality of those wetlands. GREC LLC believes these isolated wetlands would not be considered significant breeding habitat for any endemic species, nor would they provide foraging habitat for wading birds. As discussed with Ms. Rouso of FWC, those wetlands also scored low on listed wildlife values during the UMAM scoring.

FWC-3a a. *We recommend an amphibian breeding season survey be completed; at a minimum, the gopher frog should be a target species for this survey.*

Response:

GREC LLC is willing to agree to a preclearing wildlife survey (see response to FWC-2b) that includes survey methods for the gopher frog. However, based on a lack of gopher tortoises onsite, GREC LLC believes it is unlikely gopher frogs are using the Site's wetlands.

FWC-3b b. *Please note that the document indicates that this site is dominated by flatwoods-type soils, which could support the flatwoods salamander (*Ambystoma cingulatum*, listed by Florida as a Species of Special Concern). Although our GIS analysis did not identify potential habitat for this species, the site falls within its known range and therefore this species should be considered when developing the survey.*

Response:

GREC LLC agrees the Site potentially has flatwoods-type soils. However, the Site has been used for a managed forestry operation for many years, as well as an operating power plant. Vegetation communities onsite have changed, and pine communities are now

logged or converted to planted pine. Further, FNAI records show that no flatwoods salamanders have been found within 5 miles of the Site. For these reasons, GREC LLC does not agree the flatwoods salamander is likely to occur onsite, and GREC LLC has concluded that surveys should not be required on the Site for this species. It is GREC LLC's understanding that Ms. Stephanie Rousso of FWC agrees with these conclusions.

FWC-4 4) *Issue: The SCA indicates that a minimum 50-foot buffer along the perimeter of forested wetlands will be included; however, the wetland delineation and mitigation plan did not identify the conditions under which the buffer system would be maintained.*

Response:

Wetland buffers will be maintained in their current vegetative state.

FWC-4a a. *Buffers that are intended to meet minimum stormwater management requirements are not always sufficient to protect fish and wildlife needs associated with wetlands. For that reason, we recommend that the applicant develop their buffers based on the results of the fish and wildlife assessment and follow U.S. Fish and Wildlife Service wetland buffer guidelines (enclosed).*

Response:

Buffers will be provided to comply with the applicable FDEP wetlands permitting requirements and the City of Gainesville's wetlands regulations. The proposed buffers meet or exceed those requirements. GREC LLC cannot provide all the buffers recommended by the U.S. Fish and Wildlife Service (USFWS) guidelines, nor is it required to do so under any permitting standard applicable to the GREC project. This issue was discussed with Ms. Stephanie Rousso of FWC, and she understood the buffers being proposed complied with current regulatory standards.

**DEPARTMENT OF STATE
DIVISION OF HISTORICAL RESOURCES
(FDOSDHR)**

FDOSDHR-1 1) Because of this, it is the request of this agency that a professional archaeologist perform a cultural resource survey of the property, including subsurface testing, in order to relocate cultural resources identified in the 1977 survey and to assess the probability that additional archaeological sites and/or historical properties might be present.

Response:

It is GREC LLC's understanding that the only cultural resources assessment for the GREC Site area is the assessment performed in 1977 for the DGS (Miller, 1977). Therefore, as requested by the Florida Department of State, Division of Historical Resources (DOH), GREC LLC has retained a qualified, professional archaeological consultant, Archaeological Consultants, Inc. (ACI), to perform a cultural resource survey of the GREC Site. The purpose of the survey was to locate and identify any archaeological or historic resources within the Site and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). The survey efforts included background research and reviews of the Florida Master Site File, the NRHP, and the previous 1977 cultural resource assessment. The survey also consisted of surface reconnaissance, combined with systematic and judgmental subsurface testing. As a result of the survey, no evidence of features observed in the previous survey by Miller (1977) was found. This result was not unexpected due to long-term, extensive agricultural and silvicultural activities on the Site.

Based on the results of the survey, ACI concluded that no archaeological sites or historic structures that are listed, determined eligible, or considered potentially eligible for listing in the NRHP were identified within the proposed GREC Site. As a result, ACI concluded that no significant properties will be affected by the development of GREC, and no further work is recommended.

Attachment D to this document provides a copy of the Cultural Resource Assessment Survey, Gainesville Renewable Energy Center, Alachua County, Florida, January 2010,

prepared by ACI. A copy of the report has also been provided separately to the State Historic Preservation Office (SHPO) for review with a request for a concurrence letter.

FDOSDHR-2 2) If the application is referencing a more recent cultural resources assessment, a new survey may not be necessary. Regardless, detailed references to specific cultural resource assessment(s) and associated finding should be incorporated into your application.

Response:

As discussed in the response to FDOSDHR-1, a recent cultural resource assessment survey was performed on the GREC Site by ACI in January 2010. Attachment D to this document contains a copy of the survey report.