


ENVIRONMENTAL PROTECTION DIVISION
DEPARTMENT OF NATURAL RESOURCES
STATE OF GEORGIA

PERMIT TO USE GROUNDWATER

PERMIT NUMBER	150-0026	April 8, 2010
PERMIT HOLDER	Power4Georgians, LLC	
CONTACT ADDRESS	258 North Harris Street, Sandersville, Georgia 31082 – Washington County	
<p>In accordance with the Provisions of the Groundwater Use Act, (O.C.G.A § 12-5-90 et seq.) as amended, and the Rules and Regulations for Groundwater Use, Chapter 391-3-2, promulgated pursuant thereto, this Permit is issued to withdraw, obtain, or utilize a maximum system wide total of groundwater in the amount of:</p> <p>16.120 million gallons per day monthly average and 16.120 million gallons per day annual average, from fifteen (15) wells located throughout Washington County (divided between the Oconee and Ogeechee River basins) for the purpose of a consumptive use for sanitary facilities, boiler water, refilling of storage ponds, back-up cooling and process water for coal fired Power Plant.</p> <p>This permit amount is made up of:</p> <p>a) 0.120 million gallons a day monthly average and 0.120 million gallons per day annual average, from one (1) well (P) in the Ogeechee River basin, located on the plant site at Mayview Road, Sandersville, Georgia - Washington County for the purpose of a consumptive use for sanitary facilities, boiler water and other process needs for the coal fired Power Plant and;</p> <p>b) 16.000 million gallons a day monthly average and 16.000 million gallons per day annual average, from fourteen (14) wells located throughout Washington County (six (6) wells (A-C, E-G) in the Oconee River basin and eight (8) wells (H-O) in the Ogeechee River basin), for the purpose of a consumptive use for refilling of storage ponds, backup cooling, and process water for the coal-fired Power Plant.</p>		
<p>This Permit is conditioned upon the permit holder complying with the following:</p> <p style="text-align: center;">STANDARD CONDITIONS</p> <p>(1) The provisions of the Groundwater Use Act, as amended, or any of the Rules and Regulations promulgated pursuant thereto;</p> <p>(2) The Permit must not be transferred except with the approval of the Georgia Environmental Protection Division (EPD);</p> <p>(3) The combined Groundwater Use Report and the Surface Water Withdrawal Report will be submitted MONTHLY in accordance with the following schedule:</p> <ul style="list-style-type: none">• Production between the first day of the month and the last day of the month will be submitted to EPD by the 10th day of the following month (ex. January 1st through January 31st groundwater use data will be reported to the EPD by February 10th).• In addition to groundwater and surface water withdrawals, the report will provide the 30 day, on-site, raw water storage withdrawals, discharges to the Oconee River and consumptive use. <p>(4) The use of groundwater is limited to the quantities and purposes of the water herein specified.</p> <p style="text-align: center;">SPECIAL CONDITIONS</p> <p>(5) This Permit is valid for ground water withdrawal from the Cretaceous Aquifer. No other aquifer can be used without the approval of the EPD.</p> <p>(6) If multiple aquifers are designated in Special Condition (5) above, groundwater use of each aquifer must be reported separately. Each aquifer must be identified on the Groundwater Use Report, as well as listing the well or wells that are producing in each aquifer. If a well is producing in more than one aquifer, it is to be noted. The Groundwater Use Report must be submitted in accordance with the schedule outlined in Standard Condition (3) of this permit.</p> <p>(7) The replacement of any permitted well must receive prior approval from EPD.</p> <p>And the additional attached conditions (8 through 22), which are hereby made a part of this Permit.</p>		
<p>In accordance with the application dated January 17, 2008, as supplemented and amended, and in conformity with the statements and supporting data entered therein or attached thereto, all of which are filed with the EPD and are hereby made part of this Permit. This permit is effective from the date first above written and is subject to revocation on evidence of noncompliance with any of the provisions of the Groundwater Use Act, as amended, or any of the Rules and Regulations promulgated pursuant thereto; or with any representation made in the above mentioned application or the statements and supporting data entered therein or attached thereto; or with any condition of this permit.</p> <p>Absent prior revocation in accordance with the above language, this Permit will expire on the 8th day of April, 2020.</p>		
DIRECTOR'S SIGNATURE	DATE:	Director
	April 8, 2010	Environmental Protection Division Department of Natural Resources

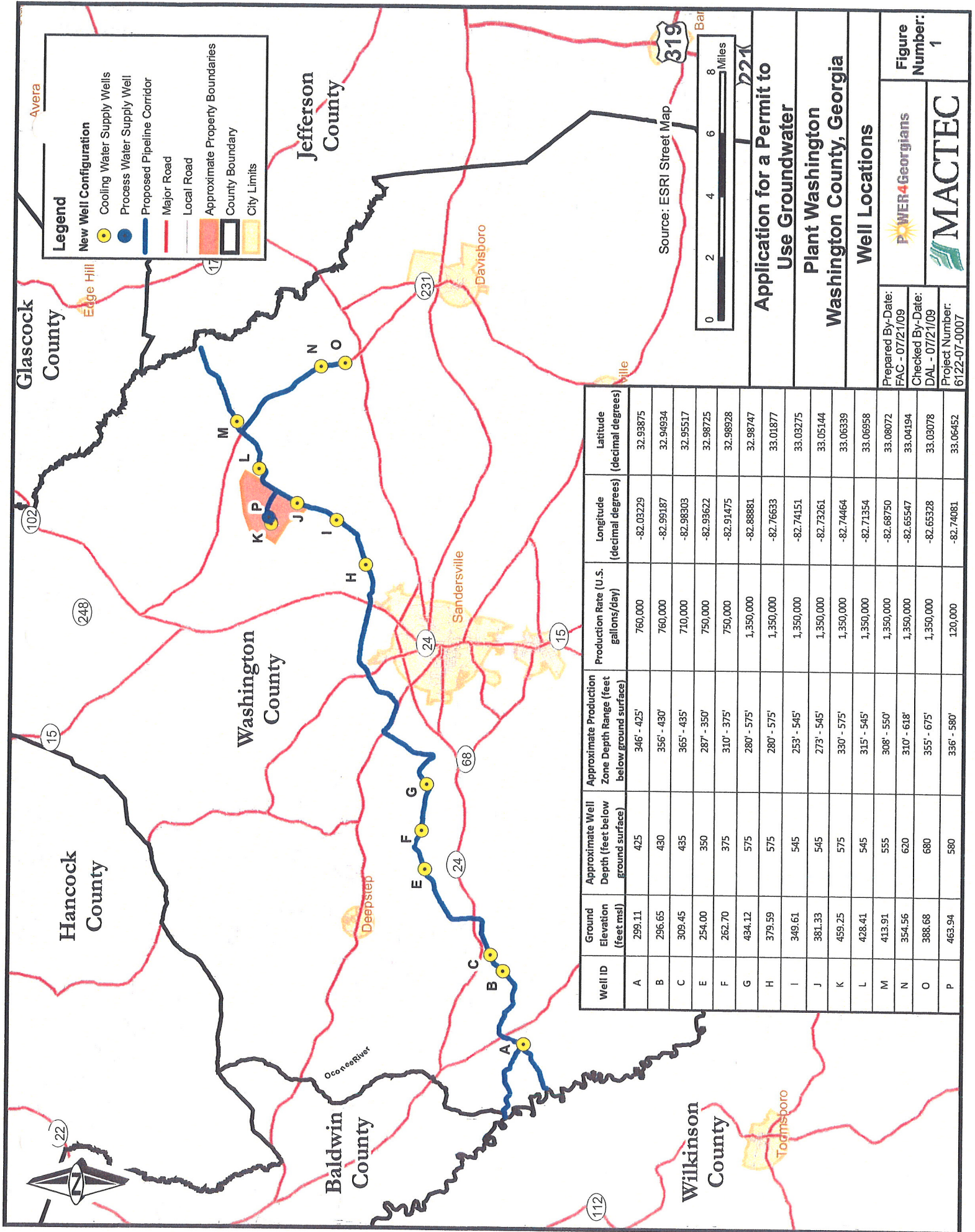
SPECIAL CONDITIONS

- (8) The permit holder will cooperate with the EPD in the coordination of its water withdrawal requirements associated with this Groundwater Use Permit No. 150-0026 and the Surface Water Withdrawal Permit No. 150-0391-04
- (9) The permit holder will submit to EPD a five-year Water Conservation Progress report pursuant to the completed Water Conservation Plan no later than April 8, 2015. Future modifications and renewals of this Permit will be linked to the appropriate implementation of the Water Conservation Plan. This Progress Report should include any actions and/or improvements made to conserve water and reduce water losses (e.g., leak detection and leak repair, meter installation and calibration, meter replacement, education efforts, and xeriscaping techniques, etc.). The Water Conservation Progress Report must also include a comparison of water loss trends, consumptive loss trends, and annual efficiency (a comparison of gallons of water used per unit of product produced) for each of the previous five years.
- (10) In accordance with the Groundwater Use Rules, 391-3-2-.08(2), a permit holder will analyze a raw groundwater sample for specific conductance on an annual basis. Analysis for specific conductance must be conducted in accordance with 40 Code of Federal Regulations, Part 141.89. A raw groundwater sample will be collected for every five permitted wells (i.e., if you have between one and five permitted wells, collect one raw groundwater sample for analysis; if you have between six and ten permitted wells, collect a raw groundwater sample from two of the permitted wells, etc.). The groundwater samples will be collected from the highest yielding wells. The results must be submitted to the Division on corporate letterhead and will include the date sampled, well number, temperature of water sample at time of testing, the specific conductance result, and the units of measurement.
- (11) The permit holder must abide by applicable drought response requirements.
- (12) The permit holder will operate and abide by its Water Metering Plan.
- (13) The permit holder must develop and implement, after EPD approval, an ongoing aquifer-monitoring program for the determination of the actual impacts of groundwater withdrawals on water levels in the Cretaceous Aquifer and the shallow water table in Washington County. A plan detailing the proposed monitoring effort must be submitted to EPD by July 8, 2010, and then will be considered for EPD approval. It must include, but not be limited to, monitoring well locations, monitoring well depths, aquifer being monitored, well construction details, the proposed schedule for drilling and constructing the monitoring wells, proposed measuring equipment and the actual measurements being proposed.
The monitoring program must include a minimum of nine monitoring wells. At least six monitoring wells must be placed in the Cretaceous Aquifer, with at least three placed along the line of production wells and at least three placed well off the line of production wells. At least three monitoring wells must be placed in the shallow water table aquifer, sited closest to highest producing Cretaceous Aquifer production wells.
- (14) All the monitoring wells will be equipped with Transponder Data Loggers. These loggers will continuously record data that will be downloaded, read and submitted to EPD monthly. EPD may modify the frequency and timing of this requirement based on the resulting information collected.
- (15) The permit holder must implement adaptive management strategies to limit or minimize adverse impacts to the aquifer due to groundwater pumping if the on-going aquifer monitoring program shows that the actual impacts of the groundwater withdrawals on water levels in the Cretaceous Aquifer and the shallow water table aquifer are more severe than those modeled.
- (16) The permit holder will not withdraw surface water and backup groundwater at the same time. Surface water will be the primary source of water for this facility. The withdrawal limits on page one (section b) of this Permit for Groundwater Withdrawal and the withdrawal limits on page one of the Surface Water Withdrawal Permit (Permit # 150-0391-04) must not be added together.
- (17) Groundwater will be considered as a backup source to surface water specifically for the refilling of on-site storage ponds, cooling water and power plant process water, up to the limits shown on page one (section b) (16,000 mgd monthly and annual average) of this permit.

- (18) Groundwater withdrawals up to the limits shown on page one (section a) (0.120 mgd monthly and annual average) are allowed at all times for designated sanitary facilities, boiler water and other process needs.
- (19) During low-flow conditions, if the on-site storage ponds are depleted by 40 percent of their volume, backup groundwater supply wells will be operated as shown in section b on page one of this permit (16.000 million gallons per day monthly and annual average). The backup water supply wells operation may continue for approximately 70 days to replenish the storage volume in the on-site storage ponds. Once the on-site storage ponds have been filled and the Oconee River streamflow has increased to the non-depletable flow plus the permitted surface water withdrawal limits, for 10 consecutive days, then water withdrawals from the Oconee River will resume.
- (20) During the operation of the wells identified on page one, section (b) of the Permit, the permit holder must notify EPD in writing within seven (7) days whenever groundwater withdrawals occur:
- (1) At locations different than those in the permit application;
 - (2) At withdrawal rates higher than those in the permit application;
 - (3) For durations longer than those established in the hydrogeologic model runs submitted as a part of the permit application; or
 - (4) At frequencies greater than those established in the hydrogeologic model runs submitted as a part of the permit application.
- Except for the well locations and production rates set forth in Figure 1 of the permit application, the permit holder may not install any wells or increase the withdrawal rates from any permitted wells without the prior approval of EPD.
- (21) If groundwater withdrawals occur per Special Condition (20) items 1, 2, 3 or 4 for more than 15 days, the permit holder must submit to EPD hydrogeologic model run(s). These hydrogeologic model run(s) must be submitted to EPD within 45 days following the triggering event to demonstrate that the observed operational change has not or will not adversely affect the aquifer.
- Following its review of the required hydrogeologic model run(s), if EPD determines that the aquifer has been adversely affected or will be adversely affected in the future, the permit holder, within 45 days following receipt of such determination, must submit to EPD an adaptive management strategy to limit or minimize any such adverse affects to the aquifer. Following receipt of EPD's approval of the adaptive management strategy, the permit holder shall implement the approved strategy.
- (22) At any time, the permit holder may perform additional hydrogeologic model run(s) of the operation of the well system and the predicted aquifer response, and submit the results of those run(s) to EPD. Following its review, if EPD agrees that the additional hydrogeologic model run(s) of the operation of the well system demonstrate that the aquifer will not be adversely affected under the conditions established in those model run(s), then these additional hydrogeologic model run(s) will be included with the permit application hydrogeologic model runs.

PERMIT MODIFICATION

The permit holder may seek modification of any of the terms of an unexpired permit upon written request to the Director. The Georgia EPD has the authority to modify any groundwater withdrawal permit at any time.



Well ID	Ground Elevation (feet msl)	Approximate Well Depth (feet below ground surface)	Approximate Production Zone Depth Range (feet below ground surface)	Production Rate (U.S. gallons/day)	Longitude (decimal degrees)	Latitude (decimal degrees)
A	299.11	425	346' - 425'	760,000	-82.03229	32.93875
B	296.65	430	356' - 430'	760,000	-82.95187	32.94934
C	309.45	435	365' - 435'	710,000	-82.98303	32.95517
E	254.00	350	287' - 350'	750,000	-82.93622	32.98725
F	262.70	375	310' - 375'	750,000	-82.91475	32.98928
G	424.12	575	280' - 575'	1,350,000	-82.88881	32.98747
H	379.59	575	280' - 575'	1,350,000	-82.76633	33.01877
I	349.61	545	253' - 545'	1,350,000	-82.74151	33.03275
J	381.33	545	273' - 545'	1,350,000	-82.73261	33.05144
K	459.25	575	330' - 575'	1,350,000	-82.74464	33.06339
L	428.41	545	315' - 545'	1,350,000	-82.71354	33.06958
M	413.91	555	308' - 550'	1,350,000	-82.68750	33.08072
N	354.56	620	310' - 618'	1,350,000	-82.65547	33.04194
O	388.68	680	355' - 675'	1,350,000	-82.65328	33.03078
P	463.94	580	336' - 580'	120,000	-82.74081	33.06452

Application for a Permit to Use Groundwater

Plant Washington Washington County, Georgia

Well Locations

Prepared By-Date: FAC - 07/21/09
Checked By-Date: DAL - 07/21/09
Project Number: 6122-07-0007

POWER4Georgians
MACTEC

Figure Number: 1