ADVANCED GEOSPATIAL INC.
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February 19, 2007

Ms. Kristen Andersen, Senior Planner
Tallahassee-Leon County Planning Department
300 S. Adams Street
Tallahassee, FL 32301

RE: Leon County Aquifer Vulnerability Assessment Progress Report #1: BC-06-21-06-53

Dear Ms. Andersen:

We are pleased to present you with the first progress report for the project listed above detailing work we have completed during the first month project period. An invoice for work completed to date is attached along with GIS compatible digital files representing deliverables due at this time per the scope of work. Please call if you have any questions.

Best regards,

Alex Wood

Alex Wood, President
Advanced GeoSpatial Inc.

AW/aw

attachments

LEON COUNTY AQUIFER VULNERABILITY ASSESSMENT PROJECT
PROGRESS REPORT #1 – FEBRUARY 19, 2007

As agreed upon between Leon County and Advanced GeoSpatial Inc., AGI will provide progress reports along with invoices and deliverables every month throughout the six-month project period. Each report will detail the progress and metrics of the LAVA project. This first report details two required project meetings, training point theme development and analysis, and LiDAR data.

Meetings

On February 7, 2007, AGI held a project kickoff meeting in City Hall to present the LAVA project to interested City and County employees. A presentation was given detailing project goals, methodology, and other similar aquifer vulnerability projects. This included an intensive question/answer and discussion session for City and County representatives to gain a greater understanding of the project and its intended end use.

As specified in the Scope of Work, AGI has formed a science advisory committee to help guide the project. The committee consists of representatives from City of Tallahassee, Leon County, Northwest Florida Water Management District, Florida Department of Environmental Protection, Florida Geological Survey, and Hazlett-Kincaid Inc, a local consulting firm. Members include:

Jay Johnson
Geologist/GIS Analyst
Leon County Public Works
Tallahassee/Leon County Interlocal GIS
Tallahassee, FL 32305

Tony Countryman, P.G.
Senior Hydrogeologist
Northwest Florida Water Management District
152 Water Management Drive
Havana, FL 32333

Koren L. Taylor, P.G.
Aquifer Protection Coordinator
City of Tallahassee
3805 A Springhill Road
Tallahassee, FL 32305

Timothy Hazlett, Ph.D.
President, Hazlett-Kincaid Inc.
3909 Reserve Dr. #726
Tallahassee, FL 32311

Linda Ann Clemens, P.G.
Florida Department of Environmental Protection
Ground Water Regulatory Section
2600 Blair Stone Road, MS 3580
Tallahassee, FL 32399-2400

Rick Copeland, Ph.D., P.G.
Hydrogeology Section
FDEP/Florida Geological Survey
903 W. Tennessee St.
Tallahassee, FL 32304

Also in attendance were Greg Mauldin of Tallahassee/Leon County Interlocal GIS, and Tom Ballentine of Leon County Growth Management. Two more advisory committee meetings are planned and tentatively scheduled to occur during April and in late June. In addition, a meeting will be scheduled during the fifth month of the project (May 19-June19) to present the project to the Board of County Commissioners.

Training Point Theme

In the LAVA analysis, training points are ground-water wells tapping the Floridan Aquifer System (FAS) with water quality indicative of high recharge. AGI is relying on dissolved oxygen data to develop the training point dataset (during model validation, dissolved nitrogen concentrations will be explored).

Water quality data sources explored include: Florida Department of Environmental Protection (FDEP) background water quality network, FDEP STATUS network, FDEP public water supply database, Northwest Florida Water Management District, and City of Tallahassee well database. From these data sources, a single database was developed for analysis. Of these wells, 69 were measured for dissolved oxygen and extracted and identified as potential candidates for inclusion in the training point theme. If multiple readings were available for a single well, the median value of the multiple sample results was chosen to represent each well as a single point. Statistical analyses completed on these 69 median values revealed the following:

Parameter	Value (mg/L)
Upper Fence	11.60
Mean	3.36
Median	2.97
Q3 (upper 25th percentile)	5.29

Based on this analysis, no median measured values occurred above the upper fence value; accordingly, no wells were considered statistical outliers. Applying the upper 25th percentile to this dataset, results in a training point theme consisting of 18 wells. Figure 1 displays the distribution of all water quality wells used to develop the training points and wells for which the median dissolved oxygen value falls above 5.29 milligrams per liter (mg/L) comprising the resulting training point theme. The task involving the development of the training points theme is 100% complete.

LIDAR Data

On February 16, 2007, AGI met with TLCGIS and obtained LIDAR digital elevation data representing Leon County. The dataset obtained is a 20-ft GIS raster format and will be used to calculate depths to aquifers and confining units, to evaluate accuracy of borehole locations and reported elevations, and correct for areas where predicted aquifer surfaces exceed land surface. This data will also be used to derive an effective karst features coverage, which will mainly be completed by Leon County.

The second advisory committee meeting is tentatively scheduled for April 10, 2007. The next scheduled progress report and invoice detailing development of the aquifer confinement theme is scheduled for completion on March 19, 2007. Overall, the project is on schedule and is scheduled to end on July 19, 2007. For reference, the task schedule as in the scope of work is included on the following page.

Table 1. Task schedule for the LAVA project.

Month 1: January 19 – February 19	***Percent Complete***	
Project Kickoff Meeting	100	
LAVA Scientific Advisory Committee Meeting #1	100	
LiDAR implementation and conversion	100	
Training Point Theme and Statistical Analyses	100	
Invoice amount	$	7,871
Month 2: February 19 – March 19		
Intermediate Aquifer System/Overburden Thickness Theme	100	
Invoice amount	$	9,850
Month 3: March 19 – April 19		
LAVA Scientific Advisory Committee Meeting #2	100	
Other Evidential Themes under Consideration and Testing	100	
Soil Permeability Theme	100	
Karst Features Theme (to be completed by Client)	100	
Invoice amount	$	7,963
Month 4: April 19 – May 19		
Preliminary Modeling/Sensitivity Analysis	100	
Invoice amount	$	12,428
Month 5: May 19 – June 19		
Final Modeling	100	
Board of County Commissioners Meeting		
Invoice amount	$	13,347
Month 6: June 19 – July 19		
Model Validation	100	
Map and Report Development	100	
LAVA Scientific Advisory Committee Meeting #3	100	
QA/QC of input data and model output	100	
Project Results Presentation and Meeting	100	
Training Session #1 and 2[1]	100	
Invoice amount	$	21,541
	$	73,000

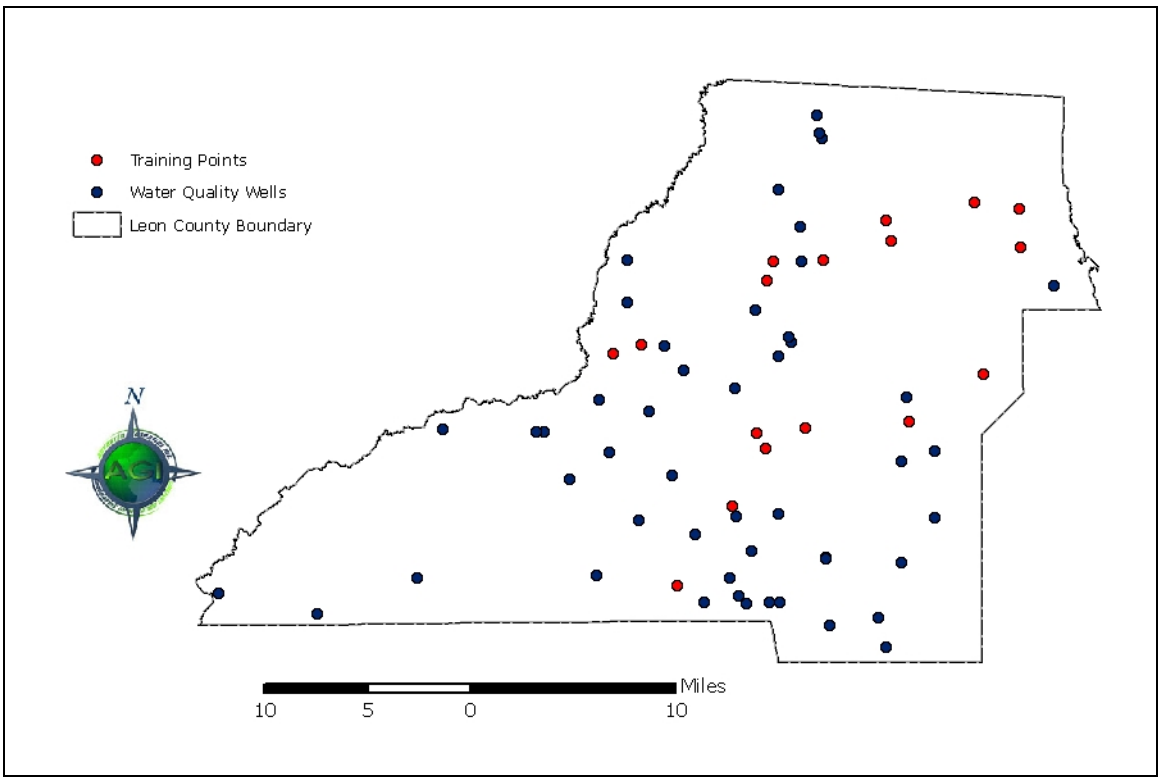

Figure 1. Water quality dataset measured for dissolved oxygen in blue and derivative training point dataset in red.