New Business #13

COUNTY DEPARTMENT AGENDA REQUEST

Department:	Solid Waste Management	Presenter(s):	Vanessa Birrell
Meeting Date:	Thursday, February 27, 2014	Type of Request:	New Business

Wording for the Agenda:

Consideration of staff's recommendation to amend the contract with Jacobs Engineering Group, Inc. by approving Addendum #2 in an amount not to exceed $104,000, in order to permit a new landfill required by recent changes to the Georgia Rules for Solid Waste Management.

Background/History/Details:

Fayette County has operated its own inert landfill (PBR 056 003IL) under the Permit-by-Rule (PBR) provisions of the Georgia Rules since 1990. Approximately 1,200 tons of broken concrete, mud, gravel and dirt from roads, water system and ditching 56 miles of gravel roads is disposed in the inert landfill each year.

Recent changes made by Georgia Environmental Protection Division will no longer allow inert landfills to operate under a Permit by Rule. Accordingly, the current inert landfill will have to be closed by December 31, 2014. In order to permit a new landfill, Fayette County must apply for a new solid waste handling permit to operate a new inert landfill. This permitting procedure is much more involved and expensive than the past Permit-by-Rule procedures.

Alternative disposal of this material would be at C&D landfills in either Clayton or Fulton Counties at a minimum cost $30 per ton (discount already taken.) It does not include costs for additional fuel, vehicle maintenance or employee travel time. Each round trip is approximately one hour.

Staff has identified four acres of land adjacent to the closed Northside Landfill on 1st Manassas Mile Road as suitable for permitting an new inert landfill. One of the key elements to processing this permit is determining depth to groundwater at the proposed site. Mobilization and field investigation costs associated with this work can be significantly minimized if performed in tandem with methane re mediation activities at the MW-20 at the closed Northside Landfill.

What action are you seeking from the Board of Commissioners?

Approval of staff's recommendation to amend the contract with Jacobs Engineering Group, Inc. by approving Addendum #2 in an amount not to exceed $104,000, in order to complete the the requirements for permitting and opening a new inert landfill required by recent changes to the Georgia Rules for Solid Waste Management.

If this item requires funding, please describe:

Of the $104,000.00 needed for this request: $43,737.00 will be funded from Project 2320C Floodplain Mapping; $40,300 will be funded from Project 2320D Drainage Improvements on Merrydale Drive; $2,350 funded from 0320A; and $17,613 from 2320B Deer Forest.

Has this issue come before the Commissioners in the past?	No	If so, when?	
Do you need audio-visual for the presentation?	No	Back-up Material Submitted?	Yes

STAFF USE ONLY

Approved by Finance	Yes	Reviewed by Legal	
Approved by Purchasing	Yes	Approved by County Clerk	Yes
Administrator's Approval			

Staff Notes:

Fayette County

"Where Quality Is a Lifestyle"

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Date: February 17, 2014

To: Ted Burgess, Purchasing Director
Steve Rapson, County Manager

From: Vanessa Birrell
Environmental Management Director

SUBJECT: Authorization for Additional Professional Environmental and Engineering Services to Perform Work Associated With Permitting a New Inert Landfill

Fayette County has operated its own inert landfill (PBR - 056 - 003IL) under the Permit-by-Rule (PBR) provisions of the Georgia Rules since 1990. Approximately 1,200 tons of broken concrete, mud, gravel and dirt from road, water system and ditching 56 miles of gravel roads is disposed in the inert landfill each year by both the Water System and Public Works department.

Recent changes made by GA EPD will no longer allow inert landfills to operate under a Permit by Rule; current PBR inert landfills must meet new permit requirements or close by December 31, 2014. Since the County inert landfill is at capacity now, staff is working to close the inert landfill per solid waste regulation requirements by December 31, 2014.

Under the new Georgia Rules, solid waste handling permit applications for inert waste landfills must include the following key elements:

1. Survey control (2-foot contour);
2. Limited site suitability investigation to determine depth to groundwater.
3. Explosive gas control or otherwise defined as a methane monitoring network. Staff plans to apply for a variance to exclude this element from the application since vegetative waste disposal is not allowed.
4. Design and Operation Plan;
5. Post-closure Care Plan; and,
6. Financial assurance.

Staff requested Jacobs Engineering Group provide a scope and fee to prepare a permit application for a new inert landfill. This request was made so northside boundary survey work and plan modification s already approved in Contract P764 could be conducted in tandem with the survey work required for this new permit. Also, mobilization costs to determine groundwater depth could be saved by conducting this work in tandem with the installation of the remediation system at MW-20.

SCOPE OF WORK

Jacobs Engineering Group Inc. proposes a not-to-exceed amount of $104,000 to perform tasks (detailed scopes attached) to file an inert landfill permit application. The scope is divided into 3 phases:

1.	Limited Site Suitability	
	Field work	$18,000
	Site Suitability Report	$16,000
2.	Topographic Survey Work	$10,000
3.	Landfill Design and Application Preparation	$60,000

Cc: Phil Mallon, Public Works Division Director

Exhibit A
Scope of Work
January 13, 2014
Fayette County Inert Landfill
Preparation of Solid Waste Handling Permit Application

Project Understanding

The Fayette County Board of Commissioners (Fayette County) has requested that Jacobs Engineering Group Inc. (Jacobs) provide scope and fee to prepare a permit application for a new inert landfill facility in Fayette County. The permit application will be prepared in accordance with recent changes to the Georgia Rules for Solid Waste Management 391-3-4 that apply to inert waste landfills, passed by the Georgia Department of Natural Resources Board on February 25, 2013 (Georgia Rules).

Background

Fayette County owns an inert landfill (PBR-056-003IL), which is currently operating under the Permit by Rule (PBR) provisions of the Georgia Rules. This landfill is nearing capacity, and Fayette County has indicated their intent to close it and apply for a new solid waste handling permit to operate a new inert landfill on approximately four acres of land adjacent to the closed Northside Landfill on 1st Manassas Mile Road. Under the Georgia Rules, solid waste handling permit applications for new inert waste landfills must include the following key elements:

- Survey control (2-foot contour);
- Limited site suitability (e.g., depth to groundwater, floodplains, and wetlands);
- Explosive gas control (methane monitoring network; can be excluded via a variance if the landfill plans to exclude organic matter from waste stream);
- Design and Operation Plan;
- Post-closure Care Plan; and
- Financial assurance.

The details of the scope of work are defined below with the associated assumptions provided at the end of this document.

Scope of Work

Jacobs has divided the scope of work into three phases:

1. Limited Site Suitability
2. Topographic Survey
3. Landfill Design and Application Preparation

Phase 1: Limited Site Suitability

In accordance with the Georgia Rules for inert landfills, Jacobs will perform a Limited Site Suitability investigation of the four acre site. The primary purpose of the investigation will be to determine depth to groundwater across the site. Jacobs will oversee the installation of four borings, which are expected to extend an average of 30 feet below ground surface. The borings will be used as piezometers for the purposes of the limited site suitability, and will be advanced a minimum of ten feet beyond the measured elevation of groundwater. Jacobs will make three return visits to the site to measure the depth to groundwater in the piezometers. After the three visits, the piezometers will be pulled and abandoned.

A Limited Site Suitability Report will be prepared which documents the drilling and installation of the piezometers. The report will also include information on wetlands and floodplains on the property, which Jacobs will obtain from available online sources. No field survey will be performed to delineate wetlands or floodplains. A draft copy of the Limited Site Suitability Report will be provided to Fayette County for review and comment prior to submittal to EPD.

Phase 2: Topographic Survey

Jacobs will prepare a topographic survey of the four acre inert landfill property that will depict 2 foot contours and will be prepared in accordance with the Rules and Regulations: State Board of Registration for Professional Engineers and Land Surveyors: Chapter 180-7, Technical standards for Property Surveys. The survey will be used to prepare design drawings described under Phase 3. Jacobs will also locate horizontally and vertically the four piezometers to be installed as part of the Limited Site Suitability described in Phase 1. The locations and elevations of the piezometers will be added to the topographic survey drawing file.

Phase 3: Landfill Design and Application Preparation

Jacobs will design an inert landfill in accordance with the Georgia Rules using the information collected during the Limited Site Suitability investigation and the topographic survey of the site. The base grade will be selected such that a minimum five foot separation from the maximum groundwater elevation measured during the Limited Site Suitability investigation is maintained, but will also take into account constructability and operational concerns. The design of the landfill will be presented in a Landfill Design and Operation Plan drawing package, which Jacobs will submit to EPD along with an application for a solid waste handling permit under the Georgia Rules. The Landfill Design and Operation Plan will include the following 9 design drawings, prepared in AutoCAD:

- Cover Sheet;
- Existing Site Conditions;
- Landfill Base Grades;
- Landfill Cross Sections;

- Final Grading Plan;
- Landfill Details
- Erosion and Sediment Control Plan;
- Operational Narrative; and
- Closure and Post-Closure Care Plan.

Jacobs understands that Fayette County plans to exclude all organic material from the inert landfill waste stream; therefore, Jacobs intends to request a variance from the explosive gas control requirement of the Georgia Rules. Methane monitoring will not be included in the Landfill Design and Operational Plan.

Jacobs will provide electronic pdf copies of the draft Landfill Design and Operational Plan drawings to Fayette County for review and comment prior to submittal to EPD.

Meetings

Jacobs will attend two meetings with Fayette County. Both will occur at Fayette County's offices or at the landfill site. The first meeting is anticipated to occur after survey data is obtained and prior to beginning the detailed landfill design. Jacobs will review with Fayette County the data collected during the survey and the limited site suitability investigation and will discuss general landfill design concepts such as landfill footprint, depth and height above grade. The second meeting will occur after draft landfill design drawings have been prepared and reviewed by Fayette County.

Deliverables

Jacobs' final submittal to EPD will include three copies of the Limited Site Suitability Report, six paper copies of the final Landfill Design and Operational Plan drawings, and a completed solid waste handling permit application, which will be signed by a representative of Fayette County.

<u>Schedule</u>

The following schedule is based on the assumptions in this proposal.

Phase	Description	Phase Duration
1	Limited Site Suitability – Drilling and Water Levels	2 months
2	Topographic Survey	1 month (concurrent with Phase 1)
3	Landfill Design and Application Preparation	2.5 months

The project can be completed within 4.5 months of authorization.

Cost Estimate

Jacobs proposes to perform the above scope of work for a maximum not to exceed amount of **$104,000** using the rate schedule provided below. Jacobs will not perform work beyond the proposed maximum without first receiving approval from the County. All other project charges (e.g., subcontractor, direct costs, etc.) will be invoiced without markup.

Hourly Rate Schedule

Classification	***Hourly Rate***
Principal	$150
Project Manager (Qualified PG/PE)	$120
Environmental Engineer	$100
Environmental Scientist	$75
Field Technician	$60

Assumptions

- Jacobs will prepare a health and safety plan prior to mobilizing to the site for drilling activities.
- The Limited Site Suitability Investigation will require one day of drilling.
- All drilling locations will be accessible by a track-mounted rig and any necessary clearing for access will be performed by Fayette County prior to mobilization of the drilling rig.
- The Scope of Work assumes there will be no drilling through waste.
- Drilling equipment decontamination will not be necessary between drilling locations.
- The Scope of Work does not include a field survey to delineate wetlands or floodplains.
- The Scope of Work does not include preparation of any separate specifications or construction documents.
- Schedule assumes that the County will provide comments on draft submittals within one week of receipt.
- Any EPD comments received in response to the permit application submittal will be addressed under separate scope and budget.