

Agenda Request For: February 8, 2006

Department: Solid Waste Management

Background: See Golder proposal 993-3928.68 dated 1/23/06 entitled "Cost Proposal for Engineering Services Permit Modification Application for Landfill Gas System Expansion and Partial Closure of the Southwest Corner of West Nassau Landfill."

Financial/Economic Impact to Future Years Budgeting Process or Effect on Citizens: Required by facility's Title V Air Permit. Will consider in future budgets as required.

Action requested and recommendation:  
Request the Board consider approving Golder Associates cost proposal 993-3928.68 for **\$55,150**. Which consist of Task 1000 Permit Modification \$37,633 and Task 2000 Address RAIs \$17,517

Is this action consistent with the Nassau County Comprehensive Land Use Plan?  
Public Facility Element Section 4

Funding Source:

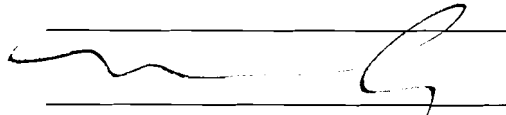
- 1.) Landfill Gas System funding source is Vertical / Corrective Action Escrow liability a/c 70000000-239956 with current accrual balance of \$657,125.28. LFG portion \$19,418 of Golder proposal & \$2,500 of permit fee.
- 2.) Partial Closure funding source is closure liability WN Class I a/c 70000000-239955 with current accrual balance of \$4,861,251.77 Closure portion of \$35,732 of Golder proposal & \$2,500 of permit fee.

Reviewed by:

Department Head



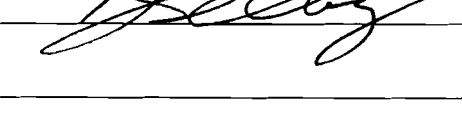
Legal



Administrator



Finance



Administrative Services

Grants

06 FEB - 3 AM 10: 14  
COUNTY COMPLAINANTS OFFICE

**APPROVED**  
License 0605

DATE 2/8/06  
ca

**Cathy Lewis**

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**From:** Karably, Wendy [Wendy\_Karably@golder.com]  
**Sent:** Thursday, February 02, 2006 2:19 PM  
**To:** Cathy Lewis  
**Cc:** Ted Selby; Lee Pickett; Michael Mahaney; Sue Butler; Sabrina Robertson; Becky Diden  
**Subject:** RE: Golder proposal 993-3928.68 dated 1/24/06

Cathy

Similar to what we did with the original partial closure permit application work order, we divided it generally along the lines as S2Li will be providing the majority of the work on the closure portion and Golder will be providing the majority of the work on the LFG portion. So, this would break down the \$55,150 as \$35,732 for closure and \$19,418 for LFG. Regarding the \$5,000 permit fee, it could go to either one, or both; if we were doing these separately, they would both require a fee of \$5,000. You could either split it down the middle or assign to one or the other.

Let me know if you need anything else.

Wendy

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**From:** Cathy Lewis [mailto:clewis@nassaucountyfl.com]  
**Sent:** Thursday, February 02, 2006 11:07 AM  
**To:** Karably, Wendy  
**Cc:** Ted Selby; Lee Pickett; Michael Mahaney; Sue Butler; Sabrina Robertson; Becky Diden  
**Subject:** Golder proposal 993-3928.68 dated 1/24/06  
**Importance:** High

Regarding the attached proposal to be presented at the BCC mgt of 2/8/06, I need a breakdown of the \$55,150 between the "LFG" portion and the "active west nassau partial closure" portion. As you are aware, the LFG portion has been funded with corrective/vertical escrow funds and the active closure portion with closure escrow funds.

Also, please clarify the \$5,000 fee purpose-LFG and/or Active partial closure? At what amount each?

Until additional information is received, I can not go further with this agenda item. Thank you and look forward to hearing from you.

<<Golder 68 proposal.pdf>>

Cathy Lewis  
Administrative Services Department  
Nassau County Board of County Commissioners  
96160 Nassau Place  
Yulee, FL 32097  
(904)491-7370 phone ext 2807  
(904)321-5917 fax

2/2/2006

FUND: 470 SOLID WASTE MGMT FUND			NET CHANGE FOR PERIOD	ACCOUNT BALANCE
70000000	207010	DUE TO GENERAL FUND	.00	-172,596.51
70000000	215002	ACCRUED INT-1999 BOND	.00	-53,622.74
70000000	224902	UNAMORTIZED DISC-1999 REFUND	.00	44,102.18
70000000	229010	ACCRUED COMP ABSENCES	.00	-52,990.28
70000000	232002	REVENUE BONDS-CURRENT-1999 REF	.00	-1,350,000.00
70000000	232902	REVENUE BONDS-LT-1999 REFUND	.00	-11,830,000.00
70000000	232912	UNAMORTIZED CHG-1999 REFUND	.00	188,239.59
70000000	239951	POST CLOSURE LIAB-WN CLOSE(OLD	.00	-796,735.97
70000000	239952	POST CLOSURE LIAB-BRYCEVILLE	.00	-517,809.00
70000000	239953	POST CLOSURE LIAB-LOFTON CREEK	.00	-1,062,123.00
70000000	239954	POST CLOSURE LIAB-WN CLASS I	.00	-5,556,963.57
70000000	239955	CLOSURE LIAB-WN CLASS I	.00	-4,861,251.77
70000000	239956	WN VERTICAL-CORRECTIVE	.00	-657,125.28
TOTAL LIABILITIES			.00	-26,900,622.80
FUND BALANCE				
70000000	241000	APPROPRIATIONS	13,514,290.00	.00
70000000	242000	EXPENDITURE CONTROL	-4,725,749.62	.00
70000000	248011	RESERVE FOR SINKING FUND	.00	-398,017.28
70000000	248020	RETAINED EARNINGS-ESCROWS	.00	-7,057,627.53
70000000	248030	RES FOR RENEWAL & REPLACEMENT	.00	-2,020,521.50
70000000	248031	RESERVE FOR CAPITAL RESERVE	.00	-1,172,350.46
70000000	250020	CONTRIBUTED CAPITAL-FUNDS	.00	445,141.96
70000000	271000	FUND BALANCE	-2,080,571.61	-2,070,503.31
70000000	272000	RETAINED EARNINGS-UNRESERVED	.00	13,533,470.93
TOTAL FUND BALANCE			6,707,968.77	1,259,592.81
TOTAL LIABILITIES + FUND BALANCE			6,707,968.77	-25,641,029.99

**Golder Associates Inc.**

8933 Western Way, Suite 12  
Jacksonville, FL USA 32256  
Telephone (904) 363-3430  
Fax (904) 363-3445



**VIA EMAIL ONLY**

January 24, 2006

993-3928.68

West Nassau Landfill  
46026 Landfill Road  
Callahan, Florida 32011

Attention: Mr. Lee Pickett, Interim Solid Waste Director

**RE: COST PROPOSAL FOR ENGINEERING SERVICES  
PERMIT MODIFICATION APPLICATION FOR  
LANDFILL GAS SYSTEM EXPANSION  
AND PARTIAL CLOSURE OF THE SOUTHWEST CORNER  
WEST NASSAU LANDFILL  
NASSAU COUNTY, FLORIDA**

*2/8  
AGENDA  
ADDITIONAL  
BACKGROUND  
TO  
FORROW*

Dear Lee:

Golder Associates Inc. (Golder) is pleased to submit this cost proposal to the Nassau County Board of County Commissioners (Board) for providing professional services associated with the intermediate permit modification for the installation of the landfill gas (LFG) system expansion, as required by the facility's Title V Air Permit. Additionally, we have proposed to include the partial closure of the southwest corner area of the West Nassau Landfill in this permit modification. In late 2003, Golder was contracted to prepare a permit modification for partial closure of the southwest corner and a limited LFG system expansion, but this task order was not completed because of the changes that were taking place or could have taken place at the landfill. However, portions of the application work were completed and will be used for this task order.

The services under this cost proposal will be provided by both Golder and our teaming partner S2Li. This cost proposal includes the preparation and submittal of an Intermediate Permit Modification Application to the Florida Department of Environmental Protection (FDEP) and addressing comments on the application. This cost proposal does not include the preparation of a construction bid package, assistance with contractor selection, oversight during construction of the system, or preparation of a certification report on the construction. A cost proposal(s) for that work will be provided to the Board once the permit modification is finalized and a construction schedule can be better estimated. The following sections include a brief background on this project, the scope of services to be provided, an estimated schedule, cost estimate, and terms and conditions.

## **BACKGROUND**

The initial LFG extraction system was installed as part of a contamination assessment required by FDEP to remediate groundwater contamination within the slurry wall in the southwest portion of the landfill. As planned, the gas wells installed in this area are located only on the perimeter of the landfill. The facility was also required to update its Title V Air Permit and in so doing, was required to test gas production at the landfill. The results of the testing (Tier II) indicated that a threshold was exceeded and additional regulatory requirements were imposed. This includes the installation or expansion of the LFG system to cover all areas that have had waste in place greater than 5 years. The expansion to be included in the permit modification will include the installation of the required wells and associated conveyance system. Additionally, the expansion of the system will be beneficial to the County in addressing the odor issues that have recently arisen as well as enhance the clean-up of the groundwater contamination.

Additionally, there are several factors involved in recommending that the southwest corner of the active landfill be included in this permit modification to have the area closed with the final cover system. As you are aware, this area of the landfill has been the source of concern with FDEP including excessive erosion, slope steepness, stormwater management, and exposed waste. Based on these factors, the installation of the final cover in this area (which will include drainage controls and a vegetative layer with grass cover to provide erosion control) is recommended to reduce maintenance efforts and costs.

## **SCOPE OF SERVICES**

### **Task 1000 – Intermediate Permit Modification Application Preparation**

Golder and S2Li will utilize the work that was conducted under the previous task order for preparing a permit modification for the partial closure. However, there are several factors that will be different in this application, either because of additional requirements (LFG expansion) or potential changes that have occurred at the landfill (slope and/or stormwater system). The LFG system expansion will cover the majority of the active area of the landfill by including the portion in which waste has been in place at least 5 years. Additionally, we will review the remainder of the active area and determine the length of time waste has been in place and determine which areas will have 5-year-old waste at or near the end of 2006. In general, the area to be partially closed covers approximately 11 acres along the western and southwestern sides of the active West Nassau Landfill; the LFG system will also be expanded within this general area. This task includes the preparation of the permit modification application, the closure design, the LFG extraction system design, submittal of a draft application to County staff for review, and submittal of the package to FDEP and addressing comments from the FDEP on the application. As stated above, we will utilize the work performed on the previous task order that initiated the partial closure. The following sections provide a brief description of the scope under this task.

Additionally, we have assumed that the County will provide the permitting fee that is required to be submitted to FDEP with the application. This fee will be \$5,000.00 to be paid directly to FDEP at the time of the submittal of the application.

#### Permit Application Preparation

Golder/S2Li will prepare a Solid Waste Permit Application Report as required by the Chapter 62-701, F.A.C. for the closure of the west and southwestern slopes of the landfill and the

expansion of the LFG system. Parts A, B, M, and O through T will be addressed. Facility information that was previously submitted to the Department to support the permit, and which is still valid, will not be re-submitted. Portions of the application not re-submitted will be marked "no substantial change" on the application form. The report will include the following sections from the rules:

1) Part A - General Information

Appropriate data for these sections of the permit application will be typewritten on the appropriate electronic application form.

2) Part B - Disposal Facility General Information

Appropriate data for these sections of the permit application will be typewritten on the appropriate electronic application form.

3) Part M - Water Quality and Leachate Monitoring Requirements (62-701.500, F.A.C.)

This section will be marked as "No substantial change".

4) Part O - Gas Management System (62-701.530, FAC)

1. The design of the LFG expansion will be prepared, shown within the permit application, and referenced on the application form.

2. Reference will be made to the locations of the design details and plans.

3. Remediation plan will be marked as "No substantial change".

4. LFG recovery facilities will be marked as "No substantial change" or "Not applicable". However, an updated overall design plan will be prepared to reflect the LFG collection system changes on the west and southwestern slopes.

5) Part P - Landfill Final Closure Requirements (62-701.600, F.A.C.)

1. Closure schedule requirements will be marked as "No substantial change" for the entire landfill, however a schedule for the west and southwestern slope closure will be submitted.

2. Closure permit general requirements will be prepared as discussed below.

3. Closure report will be marked as "No substantial change."

4. Closure design plans, CQA plan, and other required information will be prepared, included in the permit application, and

- referenced on the application form. It is assumed that previously conducted liner testing (by Golder's geosynthetic laboratory) will be referenced and/or submitted to satisfy the testing requirements under this section of the rule. Once the soil borrow source material is identified, testing will be conducted and submitted as part of the construction certification document (under a separate task order).
5. Closure operation plan discussion will be prepared, included in the permit application, and referenced on the application form.
  6. Justification of temporary closure will be marked as "Not applicable".
- 6) Part Q - Closure Procedures (62-701.610, F.A.C.)
1. Closure inspection discussion will be marked as "No substantial change."
  2. Survey monument discussion will be marked as "Not applicable."
  3. Final survey report discussion will be prepared, included in the permit application, and referenced on the application form. The actual final survey will be prepared by the construction contractor or the County and submitted as part of the construction certification document (under a separate task order).
  4. Certification of closure discussion will be prepared, included in the permit application, and referenced on the application form. The actual preparation of the certification documents is to be prepared under a separate task order.
  5. Declaration to the public discussion will be prepared, included in the permit application, and referenced on the application form. Actual declaration will be advertised by the County at the completion of construction.
  6. Official date of closure discussion will be prepared, included in the permit application, and referenced on the application form.
  7. Use of closed landfill areas will be marked as "Not applicable" since it is an ongoing operating landfill.
  8. Relocation of waste discussion will be marked as "Not applicable".

- 7) Part R - Long Term Care Requirements (62-701.620, F.A.C.)

This section will be marked as "No substantial change".

- 8) Part S - Financial Responsibility Requirements (62-701.630, F.A.C.)

This section will be marked as "No substantial change."

- 9) Part T - Certification by Applicant and Engineer or Public Officer

Golder/S2Li shall include this executed form within the permit application report.

Golder/S2Li will submit to the County a draft application form, along with the various designs (as detailed in the following subtasks), for review and comments. Golder/S2Li will meet with the County as needed to discuss any staff comments. Golder/S2Li will incorporate final comments from the County and finalize the application, including all attachments.

#### Preparation of Closure Plans/Cap Design/Stormwater Design

Golder/S2Li will prepare the required closure plans for use in the permit application and ultimate closure construction of the west and southwestern slopes. Golder/S2Li will utilize the design concepts permitted for the landfill expansion in the year 2000. The proposed closure area includes the west and southwestern slopes of the active portion of the landfill up to an elevation of approximately 90 to 95 feet, which will include two drainage terraces at approximate elevations of 40 and 70 feet. The sideslope of the closure slope between terraces and to the toe of slope will be maintained at 3 horizontal to 1 vertical (3H:1V). The proposed closure liner system will consist of a linear low density polyethylene geomembrane (FML) with a geocomposite drainage material or geonet above the FML as required to facilitate drainage above the liner. The closure plan will include the stormwater drainage plans that will detail the mechanisms to carry the stormwater from the sideslopes to the perimeter drainage ditches as currently defined by the existing State Environmental RP and solid waste permit design. Golder/S2Li has assumed that no modification to the County's ERP will be required because no change in the runoff, landfill footprint, or final terrace collection/drainage system is anticipated.

#### LFG System Design Services

As a result of the Tier II testing results, the LFG system design will be expanded to cover the portion of the active area that has had waste placed at least 5 years, including the partial closure area on the west and southwestern side slopes. For this work, Golder/S2Li will review the current approved LFG management system during preparation of the permit modification to determine if changes are warranted to improve the effectiveness of the system. Information that has been accumulated to date on the existing system will be critical in determining what changes to the proposed system will be constructive in improving the system operation. Critical items that will be reviewed and/or considered include the following:

- Actual grades compared to proposed closure grades in the areas where wells are required;



- Proximity of the wells to the landfill sideslope to maximize coverage along the perimeter of the landfill; and
- A review of the condensate management system, including replacement of all existing header and lateral lines in the partial closure area with lines placed above the closure cover liner.

Once changes to the system are finalized, Golder/S2Li will develop the necessary permit drawings for the modification. The LFG management drawings will include a plan view of the system layout, including any changes to the entire landfill system, as well as necessary detail sheets. Because these plans will be the basis for the construction package, Golder will develop these drawings generally at construction level, so that only minor changes are required to prepare the construction drawings in the future.

#### **Task 2000 – Address RAIs**

Golder/S2Li will submit the application package to FDEP for consideration. Should any questions or minor requested changes be received from FDEP, Golder/S2Li, with the assistance of the County, will prepare responses within the required time period. For costing purposes, Golder/S2Li has assumed that two requests for additional information (RAIs) from FDEP will need to be addressed, and that one meeting with FDEP will be necessary.

#### **SCHEDULE**

The following presents the anticipated schedule for the work described above in the Scope of Services:

- Notice to Proceed from the County by: February 8, 2006
- Draft permit application and plans to County by: March 3, 2006
- Permit and plans submittal to FDEP by: March 10, 2006
- Expected permit approval from FDEP by: June 10, 2006\*

\* The schedule may need to be adjusted to reflect the time period for the permit to be reviewed and approved by FDEP.

#### **COST ESTIMATE**

Golder/S2Li cost estimate to complete the work as described in the above scope of services is \$55,150.00. A detailed breakdown of the costs for each task and the labor and expenses estimated are included in the attached Table 1. As discussed, we will be using a portion of the permit application and design that was prepared previously for the southwest corner partial closure task order. S2Li will be performing a portion of the work included in this cost proposal and S2Li's costs are shown in Table 1 as Subcontractor Costs. We propose to perform this work on a cost reimbursable not-to-exceed basis in accordance with labor and unit rates consistent with Golder's and S2Li's standard rates for the year 2006. The County will only be billed actual hours

and expenses incurred on the project for work within the agreed scope of work. Direct expenses will be marked-up 10 percent for administrative purposes. Photocopies, computer and AutoCAD time will be billed at agreed upon unit rates. Travel and communications costs will not be billed to Nassau County as stated in our August 1998 proposal. The cost estimate will not be exceeded without prior authorization from Nassau County.

The cost above is for reimbursement of Golder/S2Li for the services described herein. It should be noted that the costs herein are for completion of the permitting phase of the project only and does not include any costs for Golder/S2Li nor the contractor during the bidding and construction phase. Additionally, there are other costs that the County may incur during the implementation of this project. For example, as stated earlier, it is assumed that the County will cover the permit application fee for FDEP, which is \$5,000.00.

### **TERMS AND CONDITIONS**

This work will be performed under the Agreement for Consulting Services between Golder and the County, dated February 22, 1999.

Golder/S2Li appreciates this opportunity to provide our services to Nassau County. We hope this cost proposal includes sufficient information for you to evaluate the need for this work. If you have any questions regarding this cost proposal, please do not hesitate to call.

Sincerely,

### **GOLDER ASSOCIATES INC.**



Wendy D. Karably  
Senior Consultant/Associate

#### **Attachment**

cc: Mike Mahaney – Nassau County Administrator  
Omar Smith – S2Li  
Kevin Brown – Golder

FN: G:\Projects\993\993-39\993-3928\PROPOSAL\2006 prop\2006 LFG Exp\_Closure.doc

TABLE 1

Cost Estimate  
 LFG System Expansion and Partial Closure Permitting  
 West Nassau Landfill  
 Callahan, Nassau County, Florida

LABOR		LABOR CATEGORY AND RATE										TOTAL HOURS	SUBTOTAL LABOR
		Principal Sr. Consult	Associate	Senior Proj. Mgr.	Senior Engineer	Project Engineer	Staff Engineer I	Staff Engineer II	Drafting	Technician	Clerical		
TASK	DESCRIPTION	\$170	\$150	\$135	\$110	\$95	\$85	\$75	\$75	\$55	\$55		
1000	Permit Modification	0	12	10	0	0	50	0	30	0	10	112	\$10,200
2000	Address RALs	0	12	12	0	0	20	0	10	0	6	60	\$6,200
	<b>TOTALS:</b>	<b>0</b>	<b>24</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>70</b>	<b>0</b>	<b>40</b>	<b>0</b>	<b>16</b>	<b>172</b>	<b>\$16,400</b>

EXPENSES		Field Vehicle (day)	Travel/ Per Diem (est.)	Communi-cations (est.)	Mileage (mile)	Shipping/ Postage (est.)	Field Equipment incl. PPE (est.)	Office Computer (hr)	AutoCAD Computer (hr)	Photo-copying (each)	Drawing Reproduction (est.)	Subcon-tractor (\$2Li) (est.)	SUBTOTAL EXPENSES
TASK	DESCRIPTION	\$75			\$0.45			\$10	\$20	\$0.15			
1000	Permit Modification	0	0	\$0	0	\$200	\$0	8	30	1,500	\$1,000	\$25,328	\$27,433
2000	Address RALs	0	0	\$0	0	\$100	\$0	0	10	750	\$500	\$10,404	\$11,317
	<b>TOTALS:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$300</b>	<b>\$0</b>	<b>\$80</b>	<b>\$800</b>	<b>\$338</b>	<b>\$1,500</b>	<b>\$35,732</b>	<b>\$38,750</b>

TABLE 1

**Cost Estimate**  
**LFG System Expansion and Partial Closure Permitting**  
**West Nassau Landfill**  
**Callahan, Nassau County, Florida**

COST SUMMARY				
TASK	DESCRIPTION	SUBTOTAL LABOR	SUBTOTAL EXPENSES	TASK TOTAL
1000	Permit Modification	\$10,200	\$27,433	\$37,633
2000	Address RAls	\$6,200	\$11,317	\$17,517
<b>TOTALS</b>		<b>\$16,400</b>	<b>\$38,750</b>	<b><u>\$55,150</u></b>