

SALEM COUNTY IMPROVEMENT AUTHORITY

RESOLUTION 2024-07

JANUARY 11, 2024

**RESOLUTION OF THE SALEM COUNTY IMPROVEMENT AUTHORITY  
AUTHORIZING SCS ENGINEERS CONSULTING SERVICES TO ASSIST WITH THE  
LANDFILL GAS COLLECTION SYSTEM**

WHEREAS, several operational issues have been revealed regarding the landfill gas collection system and same were discussed during a meeting with SCS Engineers Consulting throughout the month of December; and

WHEREAS, pursuant to Resolution 2023-32, SCS Engineers ("SCS") has submitted qualifications and was approved by the Board through a fair and open process to render the type of engineering services identified in this project; and

WHEREAS, SCS Consulting has identified and summarized the technical issues that need to be addressed and same are outlined on the Proposal attached hereto as Exhibit A; and

WHEREAS, the cost of the consulting work will not exceed \$16,000; and

WHEREAS, funds are available in the Capital Budget Landfill Gas accounting line item in the full amount of the cost of the replacement and same have been certified by the Certifying Officer;


**Vendor: SCS Engineers Consulting**

<u>Account Number</u>	<u>Amount</u>	<u>Department Description</u>
60-12-125-000	\$16,000.00	Capital Budget Landfill Gas

NOW, THEREFORE, BE IT RESOLVED that the SCS Consulting is hereby authorized to perform the necessary work as outlined in the proposal attached hereto as Exhibit A, in an amount not to exceed \$16,000.

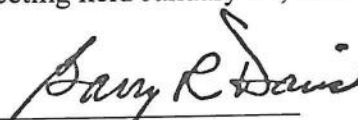
**ATTEST:**

  
Barry Davis, Secretary

  
Susan Bestwick, Chairperson

**CERTIFICATION**

I hereby certify the above to be a true copy of a resolution adopted by the Salem County Improvement Authority Board at their regular meeting held January 11, 2024.

  
Barry Davis, Secretary

January 5, 2024  
File No. 02218820.05

Ms. Julie Acton, Executive Director  
Salem County Improvement Authority  
286 Welchville Road; PO Box 890  
Alloway, New Jersey 08001

**Subject:** Landfill Gas Collection System Planning and Design Proposal

Dear Julie,

Presented herein is our proposal to assist you with gas collection and control system (GCCS) expansion planning and design.

## BACKGROUND AND OBJECTIVES

In the past several months, the landfill has been the source of several odor complaints. Assessment of the situation by site personnel, the contracted GCCS operator (Earthres), and a site visit by SCS suggests that odors are primarily emanating from the outer slope of Cell 11 and from active Cell 10. Efforts to improve vacuum in Cell 11 and to extend a vacuum source from the Cell 9 leachate pump house gas collector to the pump house in Cell 10 have made some improvements. However, additional gas collection and more reliable vacuum connections are needed to improve emissions/odor control.

The objectives of this project are to identify GCCS expansion needs (both near term and long term) and to develop design drawings sufficient for installation. Based on our discussions, the near term construction may be self-performed. As such bid documents would not be included with the design. For the long term GCCS expansion, we assume drawings, specifications, and bid documents will be required to hire a contractor.

## APPROACH

To accomplish these objectives, we propose to perform the work per the following tasks.

### Task 1 – Near-Term GCCS Expansion Design

Task 1 will focus on developing GCCS expansion design drawings to expedite odor control. The following subtasks are anticipated:

1. Review most recent GCCS monitoring data, including monthly readings and any supplemental data collected by SCIA regarding vacuum conditions and other observations.
2. Obtain current topography in Cells 10 and 11 via drone flight.
3. Layout new vacuum headers and gas collectors with construction details. Horizontal collectors are assumed to be the best approach for this situation.
4. Review design with SCIA, discuss comments, and finalize design.
5. Discuss options for installation (self-installation, outside contractor, or some combination that uses outside labor to assist SCIA).



6. Prepare engineer's estimate of cost.
7. Provide part-time construction engineering during installation to answer questions, prepare design changes/field engineering to address conditions encountered that differ from what was anticipated in the design. For budgeting purposes, up to three site visits are assumed.
8. Provide as-built drawings when work is completed. As-builts would be based on survey data provided by others.

## **Task 2 – Long Term GCCS Expansion Design**

This task will address the need for GCCS expansion for the current grades at the landfill. This will involve more permanent infrastructure, including vertical gas wells to provide effective emissions and odor control. Given the rate of waste filling at your facility, we anticipate this expansion would provide sufficient gas control through 2025. The following subtasks are anticipated:

1. Building on the Task 1 efforts, address and design GCCS improvements as well as investigate potential improvements needed in other areas of the landfill. An additional site visit to the site would be conducted to review the design approach with SCIA staff.
2. Develop design drawings for the GCCS expansion, including up to two (2) draft sets for review before publishing for public bid.
3. Provide technical specifications for the work as shown in the design drawings. This work includes adapting SCIA's front-end documents as required prior to bidding.
4. Provide an Engineer's cost estimate to assist with SCIA's budgeting and bid evaluation.
5. Bidding assistance, including answering bidder questions, attending a pre-bid meeting, confirming the selection of a qualified bidder, and attending a pre-construction meeting.

Engineering construction quality assurance services are not included in the scope of work, but can be provided when the extent of system expansion and corresponding construction duration are defined.

## **WORK PRODUCTS**

The work products for this project will include the following:

### **Task 1**

- Draft and final design drawings
- Engineering Cost Estimate
- As-Built drawings

### **Task 2**

- Draft and final design drawings
- Technical Specifications
- Bid Documents
- Engineering Cost Estimate

## SCHEDULE AND BUDGET

The general schedule for the two tasks described above is proposed as follows:

- Task 1 – Submit draft design drawings within 3 weeks of notice to proceed to expedite odor control efforts.
- Task 2 – In parallel with Task 1, develop design and bid documents in first quarter 2024 to allow for GCCS expansion construction this year.

SCS proposes to perform these services on a time and materials basis for the not to exceed amounts listed by task below. These amounts are based on the budgetary fee estimate shown Attachment A.

- |          |                 |
|----------|-----------------|
| • Task 1 | \$15,430        |
| • Task 2 | <u>\$26,405</u> |
| • Total  | \$39,285        |

If you have any questions or desire further information, please call Eric at 609-654-4000.

Sincerely,



Christopher Woloszyn  
Senior Project Professional  
SCS ENGINEERS



Eric R. Peterson, PE  
Project Director  
SCS ENGINEERS

cc: Parker Smith

**ATTACHMENT A**  
**SCS ENGINEERS - ENGINEERING SERVICES FEE ESTIMATE**

**LABOR COSTS**

Personnel	LABOR SUMMARY		BILLING BUDGET		
	Tasks (Hours)		Hours	Rate	Total
	Task 1 Near-Term GCCS	Task 2 Long-Term GCCS	Hours	(\$)	(\$)
Project Director	12.0	20.0	32.0	\$ 245	\$ 7,840
Senior Project Adviser	0.0	0.0	0.0	\$ 195	\$ -
Project Manager	0.0	16.0	16.0	\$ 170	\$ 2,720
Senior Project Professional	40.0	45.0	85.0	\$ 145	\$ 12,325
Project Professional	16.0	40.0	56.0	\$ 130	\$ 7,280
Designer	0.0	0.0	0.0	\$ 105	\$ -
Staff Professional	32.0	64.0	96.0	\$ 95	\$ 9,120
Associate Staff Professional	0.0	0.0	0.0	\$ 90	\$ -
Secretarial/Clerical	0.0	0.0	0.0	\$ 60	\$ -
<b>Subtotal Labor (hours)</b>	<b>100.0</b>	<b>185.0</b>	<b>285.0</b>		<b>\$ 39,285</b>

Personnel	Near-Term GCCS	Long-Term GCCS	(\$)
Project Director	\$ 2,940	\$ 4,900	\$ 7,840
Senior Project Adviser	\$ -	\$ -	\$ -
Project Manager	\$ -	\$ 2,720	\$ 2,720
Senior Project Professional	\$ 5,800	\$ 6,525	\$ 12,325
Project Professional	\$ 2,080	\$ 5,200	\$ 7,280
Designer	\$ -	\$ -	\$ -
Staff Professional	\$ 3,040	\$ 6,080	\$ 9,120
Associate Staff Professional	\$ -	\$ -	\$ -
Secretarial/Clerical	\$ -	\$ -	\$ -
<b>Subtotal Labor (\$)</b>	<b>\$ 13,860</b>	<b>\$ 25,425</b>	<b>\$ 39,285</b>