

Invoice

1676

Brian Harding, General Manager
Eastman Sewer Company
P. O. Box 470
Grantham, NH 03753

Invoice No. 7742
Invoice Date: July 15, 2012

Current Invoice Amount: \$2,466.96

Services through 7/15/2012

Services: Professional engineering services for the evaluation of alternatives to allow the WWTF to meet the new effluent discharge permit limits, the first task will be to review a sampling and analysis program by others.

Reference: Report Phase Contract dated June 17, 2011. Amendment No. 1 dated February 17, 2012. Amendment No. 2.

Task 01 Wastewater Evaluations

Contract Value:	\$29,500.00
Previously Billed:	\$8,004.37
Current Billing:	\$2,466.96
Remaining Balance:	\$19,028.67

Professional Services

	<u>Hours</u>	<u>Charge</u>
Senior Project Manager	3.00	397.44
Project Manager	12.00	1,320.19
Project Engineer	2.00	148.93
Clerical	5.50	338.00
Professional Services Total		<u>\$2,204.56</u>

Reimbursables

	<u>Charge</u>
Miscellaneous	255.00
Postage & Freight	1.10
Prints & Copies	2.60
Telephone	3.70
Reimbursables Total	<u>\$262.40</u>

Task 01 Total \$2,466.96

Total Balance This Invoice \$2,466.96

Project Manager per DGM
Principal Cam

Invoice

1676

Brian Harding, General Manager
Eastman Sewer Company
P. O. Box 470
Grantham, NH 03753

Invoice No. 7800
Invoice Date: August 19, 2012

Current Invoice Amount: \$13,617.05

Services through 8/19/2012

Services: Professional engineering services for the evaluation of alternatives to allow the WWTF to meet the new effluent discharge permit limits, the first task will be to review a sampling and analysis program by others.

Reference: Report Phase Contract dated June 17, 2011. Amendment No. 1 dated February 17, 2012. Amendment No. 2.

Task 01 Wastewater Evaluations

Contract Value:	\$29,500.00
Previously Billed:	\$10,471.33
Current Billing:	\$13,617.05
Remaining Balance:	\$5,411.62

Professional Services

	<u>Hours</u>	<u>Charge</u>
Senior Project Manager	28.50	3,775.68
Project Manager	51.50	5,665.82
Project Engineer	32.00	2,382.85
Technician	22.50	1,605.60
Clerical	.50	28.80
Professional Services Total		<u>\$13,458.75</u>

Reimbursables

	<u>Charge</u>
Mileage	111.00
Prints & Copies	37.30
Telephone	10.00
Reimbursables Total	<u>\$158.30</u>

Task 01 Total \$13,617.05

Total Balance This Invoice \$13,617.05

Project Manager per [Signature]

Principal [Signature]

Invoice

1676

Brian Harding, General Manager
Eastman Sewer Company
P. O. Box 470
Graham, NH 03753

Invoice No. 7832
Invoice Date: September 16,
2012

Current Invoice Amount: \$2,911.62

Services through 9/16/2012

Services: Professional engineering services for the evaluation of alternatives to allow the WWTF to meet the new effluent discharge permit limits, the first task will be to review a sampling and analysis program by others.

Reference: Report Phase Contract dated June 17, 2011. Amendment No. 1 dated February 17, 2012. Amendment No. 2.

Task 01 Wastewater Evaluations

Contract Value:	\$29,500.00
Previously Billed:	\$24,088.38
Current Billing:	\$2,911.62
Remaining Balance:	\$2,500.00

Professional Services

Senior Project Manager
Project Manager

Hours	Charge
8.00	1,059.84
16.00	1,756.28
	<hr/>

Professional Services Total \$2,816.12

Reimbursables

Mileage
Prints & Copies
Telephone

Charge
55.50
30.00
10.00
<hr/>

Reimbursables Total \$95.50

Task 01 Total \$2,911.62

Total Balance This Invoice \$2,911.62

Project Manager *per DGM*
Principal *can*

1676 Contract

April 10, 2012

Mr. Brian Harding, General Manager
Eastman Sewer Company
Post Office Box 470
Grantham, NH 03753

Re: ***Report Phase Engineering Contract – Amendment No. 2***
WWTF Evaluation
Eastman Sewer Company, Grantham, NH

Dear Mr. Harding:

Enclosed is a **fully executed copy** of the Report Phase Engineering Contract Amendment No. 2 for the above-referenced project for your files.

Please contact me at 230-9898 if you have any questions.

Very truly yours,

UNDERWOOD ENGINEERS, INC.



David J. Mercier, P.E.
Senior Project Manager

Encl.

cc: Keith Pratt – UE (w/ORIGINAL)

Amendment No. 2

Engineering Report Phase
Contract for Professional Services
for
Treatment Works

Wastewater Treatment Evaluations
Eastman Sewer Company
Graham, New Hampshire
UEI Project #1676-01; DES Project No. R-700-01

RECEIVED
APR 4 2012
DES-WEB

WHEREAS, an AGREEMENT made and entered into at Sullivan County, New Hampshire, on the 14th day of June 2011, by and between the Eastman Sewer Company, hereinafter called the OWNER, and Underwood Engineers, Inc. hereinafter called the ENGINEER for engineering work required to evaluate upgrades to the existing wastewater treatment facilities to allow the new effluent discharge permit to be met, the first task of which was to develop and implement a sampling and analysis program, and

WHEREAS, an amendment is needed to modify the scope of work and fee to include a comprehensive wastewater treatment evaluation (see Attachment A – Comprehensive Study Scope of Services).

NOW, THEREFORE, in consideration of the agreement an amendment is hereby agreed to by the OWNER and the ENGINEER as follows:

A. That the time of report completion in Section III, Paragraph A., on Page 2 be amended to read:

“within 150 consecutive calendar days following acceptance of contract Amendment No. 2 by the Owner,”

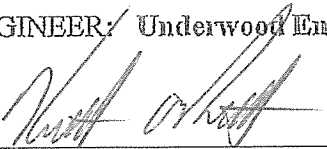
B. That the dollar amount in Section IV, Paragraph A.2, on Page 2 be amended to read:

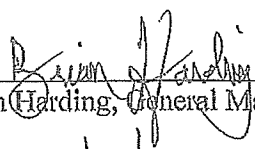
“, a fee not to exceed Twenty Nine Thousand, Five Hundred Dollars (\$29,500.00). (Previous fee = \$7,700.00, Increase = \$21,800.00)”

The OWNER and the ENGINEER hereby agree to this Amendment.

ENGINEER: Underwood Engineers, Inc.

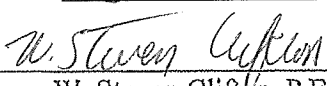
OWNER: Eastman Sewer Company

By: 
Keith A. Pratt, P.E., President

By: 
Brian Harding, General Manager


Date: 3/30/12

Date: 3/22/2012

By: 
W. Steven Clifton, P.E., Vice President

Date: 3-30-12

APPROVED: Department of Environmental Services
Water Division

By: 
Paul L. Heirtzler, P.E., Administrator

Date: 4/4/12

***It is understood that as an act in furtherance of its statutory authority to approve engineering agreements for sewerage facilities, the DIVISION's approval does not impose any contractual obligation or liability on the State of New Hampshire, the Department of Environmental Services or the DIVISION.*

**Signatures should be supported by appropriate document.*

ATTACHMENT A - COMPREHENSIVE STUDY SCOPE OF SERVICES

**EASTMAN SEWER COMPANY
GRANTHAM, NEW HAMPSHIRE**

WASTEWATER TREATMENT EVALUATIONS

The following Scope of Services outlines the tasks proposed for a comprehensive wastewater treatment evaluation for the Eastman Sewer Company (ESC).

Underwood Engineers, Inc. will provide professional engineering services relating to the study/evaluation phase of the existing wastewater treatment and disposal system and will provide recommendations for short-term and long-term improvements that consider the existing wastewater disposal permit requirements (or potential modified limits).

TASK 1: SHORT-TERM ASSISTANCE (SEE AMENDMENT NO. 1)

TASK 2: SITE INVESTIGATIONS

- Complete one (1) day of test pits and percolation tests to assess soils for possible groundwater disposal sites.
- Complete three rounds of sampling at the influent, aerated lagoon effluent, and holding pond effluent for the following parameters. The sampling will be completed on three scheduled site visits.
 - BOD
 - CBOD
 - TSS
 - Ammonia
 - Nitrate
 - Nitrite
 - TKN
 - Fecal Coliform

If desired, Underwood could coordinate with Water Systems Operators to perform sampling and analysis.

TASK 3: UPGRADE ALTERNATIVES EVALUATION AND REPORT

- Conduct an initial Kick-off Meeting to brainstorm ESC's goals. The Kick-off Meeting will be the basis for refining the options and approach to the study/evaluations outlined below. The Kick-off Meeting will be used to screen available technologies and identify those worth considering further. A matrix comparing economic and non-economic aspects of alternatives will be prepared for discussion purposes. This may include, but not be limited to:

Treatment Options

Existing System Upgrades

- Fine Bubble Aeration Systems
- Floating Covers for lagoons/ponds
- Upgraded Chlorination/Dechlorination Facilities

New Unit Processes

- Recirculating Sand Filter (RSF)
- Cloth Disc Filters
- Rapid Sand Filters
- UV Disinfection

Disposal Options

- Spray Irrigation
- Spray Irrigation Blending
- Subsurface Drip Disposal (e.g. Geoflow, Inc.)
- Rapid Infiltration basins
- Infiltration Ponds
- The Kick-off Meeting will also be used to confirm the basis of design
 - Existing and projected flow and loadings based on existing data and projected occupancy
 - Nutrient removal needs (i.e., nitrate, phosphorus)
 - Disinfection needs
 - Other important items

- Based on the findings of the Kick-off Meeting, develop the three favored long-term wastewater treatment and disposal options. For each alternative considered, we will provide the following:
 - Basis of design and design criteria
 - Opinion of cost (capital and O&M) and present worth for comparison
 - Probable construction schedule
 - Schematic drawings
 - List of necessary permits to complete the work
 - Projected discharge permit limits that would apply at completion of the project
- Identify possible funding sources for the project
- Provide a draft report to the ESC
- Provide a final report following comments from the ESC. The final report will be submitted to NHDES (Wastewater Engineering and Groundwater Protection) for review and approval.

Summary of Deliverables:

- Summary report of alternatives evaluation

Summary of Meetings:

- Underwood Engineers will attend the following meetings:
 - One (1) Kick-off meeting
 - Two (2) Progress meetings
 - One (1) meeting with NHDES to confirm projected disposal permit requirements for each upgrade option evaluated
 - One (1) Presentation meeting

TASK 4: FUNDING AND FINANCING ASSISTANCE (FUTURE)

NOTE: Design, Bidding, and Construction Phase Engineering Services are not included in this Scope of Work.

COST OR PRICE SUMMARY FORMAT FOR SUBAGREEMENTS UNDER NH SAG & SRF				Form Approved DES 11/00
PART I - GENERAL				
1. GRANTEE / LOANEE Eastman Sewer Company, Grantham, New Hampshire			2. GRANT/LOAN NO.	
3. NAME OF CONTRACTOR OR SUBCONTRACTOR Underwood Engineers, Inc.			4. DATE OF PROPOSAL March 7, 2012	
5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR (Include ZIP) 99 North State Steet, Concord, New Hampshire 03301			6. TYPE OF SERVICE TO BE FURNISHED Engineering Services - Rpt Ph Amend2	
PART II - COST SUMMARY				
7. DIRECT LABOR (Specify labor categories)	HOURS	HOURLY RATE	ESTIMATED COST	TOTALS
Principal	0	\$60.00	\$0.00	
Senior Project Manager	0	\$55.00	\$0.00	
Project Manager	36	\$45.00	\$1,620.00	
Senior Project Engineer	92	\$40.00	\$3,680.00	
Project Engineer	0	\$35.00	\$0.00	
Technician	8	\$25.00	\$200.00	
Resident Engineer	0	\$30.00	\$0.00	
Clerical	12	\$19.00	\$228.00	
DIRECT LABOR TOTAL:				\$5,728.00
8. INDIRECT COSTS (Specify indirect cost pools)	RATE	x BASE =	ESTIMATED COST	
	1.76	\$5,728.00	\$10,081.28	
INDIRECT COST TOTAL:				\$10,081.28
9. OTHER DIRECT COSTS				
a. TRAVEL			ESTIMATED COST	
(1) TRANSPORTATION			\$555.00	
(2) PER DIEM			\$0.00	
TRAVEL COSTS TOTAL:			\$555.00	
b. EQUIPMENT, MATERIALS, SUPPLIES (Specify categories)			ESTIMATED COST	
phone, postage, fax, misc. (allowance)			\$255.40	
EQUIPMENT SUBTOTAL:			\$255.40	
c. SUBCONTRACTS			ESTIMATED COST	
Lab, Backhoe			\$2,500.00	
			\$0.00	
			\$0.00	
SUBCONTRACTS SUBTOTAL:			\$2,500.00	
d. OTHER (Specify categories)			ESTIMATED COST	
copies, prints			\$160.00	
			\$0.00	
OTHER SUBTOTAL:			\$160.00	
e. OTHER DIRECT COSTS TOTAL:			\$3,470.40	
10. TOTAL ESTIMATED COST				\$19,279.68
11. PROFIT				\$2,520.32
12. TOTAL PRICE				\$21,800.00

