

# Memo

To: Coakley Executive Committee  
From: Peter Britz, Coakley Coordinator  
Date: November 4, 2020  
Re: Activity report

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## Surface Water Treatment

Delivery of the filtration blankets has occurred and CES is making preparations to install the blankets this week or next. The blankets are designed to remove PFAS from surface water and will be installed before surface water leaves the GMZ and enters Berry's brook. This is the first phase of a pilot study to determine effectiveness of the treatment blankets. Testing will be conducted from samples taken from surface water before the blankets and from surface water samples taken after the blankets to determine the amount of PFAS if any that is removed. Additional surface water sampling rounds will occur every two weeks after deployment. The blankets will be removed for the winter and a plan for future installation will be prepared after all sample results have been reviewed.

## Deep Bedrock Study

New well installation has been scheduled. The new well will be installed on NHDOT property near GZ-105 and will be called MW-25. Installation is planned for November 25, 2020. However, before the well can be installed approval of an access agreement by the State of NH Department of Transportation is required. The agreement has been submitted and is awaiting NHDOT sign-off. Following new well installation transducers will be installed in select wells in preparation for the pump test at MW-6.

## DOJ Bill

I had hoped to get Invoice 12 out before this meeting but were not able to compile the additional backup before this meeting as it took more time than expected to compile. I will be going over the final submission in the next week to prepare for submission to DOJ. Unless final review changes something the amount will be \$97,078.62.

## CES Contracts

- 1) CES has submitted a contract amendment which includes time for CES to deploy the surface water treatment blankets, collect and process water quality samples and oversee beaver control all in support of the HB-494 pilot water quality project. This amendment is attached and requires approval by the Group and signature by the Chair. (10424020-05\_Surface Water Treatment\_Beaver Mitigation\_Contract Amendment\_rev01.pdf)
- 2) I signed off on one CES contract amendment under the \$10,000 threshold for the Group's signature. That contract is for a subcontractor to remove the blockage of a culvert. This contract was for a total of \$8,625.00. The signed contract is attached as (10424020-04\_Culvert Blockage Removal\_Contract Amendment\_signed.pdf)



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October 23, 2020

Mr. Peter Britz  
Coakley Project Coordinator  
Coakley Landfill Group  
1 Junkins Avenue  
Portsmouth, New Hampshire 03801

**RE: Proposal for Surface Water Treatment Remedy and Beaver Mitigation Contract Management  
Coakley Landfill Superfund Site | North Hampton and Greenland, New Hampshire  
Contract Amendment No. 10424020-05**

Dear Peter:

CES, Inc. (CES) is pleased to submit the following contract amendment and description of services to the Coakley Landfill Group (CLG) for the implementation of a surface water treatment remedy, beaver mitigation contract management, and culvert blockage removal at the Coakley Landfill Superfund Site (Site). The Scope of Services for this contract amendment is based on the Surface Water Evaluation Scope of Work (Scope of Work) and the Surface Water Treatment Pilot Study Memorandum (Memorandum). These were developed by CES on behalf of the CLG and submitted to United States Environmental Protection Agency (USEPA) and New Hampshire Department of Environmental Services (NHDES) on January 22, 2020, and October 9, 2020, respectively.

In addition to the Scope of Work, some activities (NHDOT temporary access agreement and USDA contracting) were requested by the CLG. The implementation of a surface water treatment remedy in accordance with House Bill 494 (HB 494) is outlined in the HB 494 - *Surface Water Treatment Pilot Study Memorandum* (Memorandum) submitted to the NHDES and USEPA on September 17, 2020 with comments provided by the NHDES on October 1, 2020. The Memorandum outlined the treatment area, selected remedy, remedy deployment, effectiveness monitoring, remedy evaluation, and reporting.

## SCOPE OF SERVICES

The following scope of services includes those items required to support the ongoing Surface Water Evaluation and HB 494 Surface Water Treatment Remedy (Remedy). These tasks include beaver dam removal, beaver mitigation, and implementation of the Remedy as detailed below.

**Task 1 | Surface Water Treatment Remedy:** The remedy to address HB 494 will be implemented in accordance with the Memorandum. The implementation is comprised of three primary tasks that include remedy deployment, evaluation sampling, and data analysis and reporting.

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### Task 1A: HB 494 Remedy Deployment

In accordance with the Memorandum, BAM blankets will be deployed within the channel located at the north end of the Groundwater Management Zone (GMZ) prior to entering a box culvert that underlies the former railroad easement right-of-way. These blankets will be spaced evenly along the length of the channel and be affixed to the channel sidewalls in accordance with the Memorandum. Costs associated with the deployment include the purchase of the BAM material and labor to prepare the channel and deploy the blankets. A total of six BAM blankets will be purchased that are approximately 3-ft by 3-ft and secured within the channel to promote flow through the media while limiting any buildup of detritus or sediment around the blankets. Channel prep will include:

- ◆ Clearing of brush along the length of the channel;
- ◆ Removal of the beaver dam to lower the impounded water level;
- ◆ Repair of channel sidewalls where granite/concrete blocks have fallen into the waterway;
- ◆ Removal of any accumulated debris at the ends of the channel; and
- ◆ Placement of a screen upstream of the deployed blankets to catch debris before reaching the channel and blankets.

Once complete, channel elevations will be surveyed relative to known staff gauge locations and documented. Blanket deployment will include several activities as outlined in the Memorandum and will include:

- ◆ Establish pre- and post-treatment sampling locations within the treatment area;
- ◆ Deployment of the BAM blankets along the length of the channel;
- ◆ Measure flow rates within the channel prior to and following treatment; and
- ◆ Verify the flow of water through the blankets/media and document accordingly.

### Task 1B: Evaluation Sampling

The evaluation of BAM effectiveness will require the collection of pre- and post-treatment samples free from the dilution that may occur via other sources of surface drainage (railroad easement ditches and roadways). Initial pre- and post-treatment sampling will occur at the time of deployment with subsequent pre- and post-treatment sampling occurring every two weeks following remedy deployment (up to three total post-treatment samples for the 2020 season). Due to the current schedule, it is proposed that the blankets will be removed in mid to late November to reduce the likelihood of damage to the blankets from freezing or the potential buildup of ice.

### Task 1C: Data Analysis and Reporting

The effectiveness of the blankets will be evaluated based on their achievement of a reduction of PFAS in the surface water and will be based on a percent reduction of measured PFAS concentrations. Recommendations for future remedy deployment will be made in the Spring of 2021 and whether the evaluation of floating booms (or other BAM products) will be required upstream of the blankets. These recommendations may include the use of alternative remedy products as presented to the CLG in the *Surface Water Treatment Options – HB 494 Memorandum* dated February 19, 2020. Reporting will include the documentation of the deployment geometry, analytical results, and overall evaluation of the remedy as deployed. The report will include recommendations for modifications to the remedy, if any, to maintain the remedy objective.

**Task 2 | Beaver Mitigation Contract Management:** It was requested by the CLG for CES to enter into and manage the beaver mitigation contract with the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS). This effort involved the preparation and signing of a Cooperative Service Agreement (CSA) between the USDA and CES based on correspondence between CES, the CLG, and USDA. The CSA outlines the scope of services to be completed by the USDA in its efforts to mitigate beavers located in the wetland complex west and north of the Coakley Landfill. The contract period of performance is from August 26, 2020 to August 25, 2021 or until the budget proposed by the USDA has been expended. The USDA will invoice CES on a monthly basis for services performed in beaver mitigation with the CLG invoiced according to the terms and conditions of the original contract between the CLG and CES (10424020). This budget will be managed as a separate task and used for costs associated with the execution and management of the CSA between CES and the USDA.

### IMPLEMENTATION SCHEDULE

Implementation of the Remedy will begin following the removal of beaver dams and blockages as outlined in the Memorandum and Scope of Work. Schedules will be dependent upon the availability of the subcontractor outlined in Task 3 and subject to the terms of the temporary access agreement with the NHDOT. These terms include approval by the NHDOT to enter the easement following notification by CES of the work schedule.

### COMPENSATION

CES proposes the following not-to-exceed costs for the above-mentioned tasks, as well as the breakdown for each task.

TASK	DESCRIPTION	COST ESTIMATE
1A	<b>HB 494 Remedy Deployment</b> <ul style="list-style-type: none"> <li>◆ Channel Preparation</li> <li>◆ Beaver Dam Removal</li> <li>◆ Remedy Deployment</li> <li>◆ Water Flow Measurements</li> </ul>	CES Labor and Expenses: \$2,600.00  Treatment Media: \$2,200.00  <b>Task Total: \$4,800.00</b>
1B	<b>Remedy Evaluation Sampling</b> <ul style="list-style-type: none"> <li>◆ Complete Three Pre- and Post-treatment Sampling Events</li> <li>◆ Laboratory Analysis of Collected Samples for PFAS</li> </ul>	CES Labor and Expenses: \$2,450.00  Laboratory Analytical Costs: \$2,400.00  <b>Task Total: \$4,850.00</b>
1C	<b>Data Analysis and Reporting</b>	CES Labor: \$4,100.00  <b>Task Total: \$4,100.00</b>
2	<b>Beaver Mitigation Contract Management</b> <ul style="list-style-type: none"> <li>◆ Execution and management of CSA between CES and USDA-APHIS.</li> </ul>	CES Labor: \$325.00  USDA Contract: \$5,570.00  <b>Task Total: \$5,895.00</b>
	<b>TOTAL</b>	<b>\$19,645.00</b>

The not-to-exceed budgets listed above includes costs associated with document preparation and review, sampling equipment/meters and consumables (where required), sub-contractors, labor, and reimbursable expenses. Task budgets will be tracked individually as Task 2 includes a separate cost-not-to-exceed subcontract with the USDA that may not be used in its entirety.

Costs for this project will be invoiced monthly, based upon the work completed during the invoice period. CES is prepared to initiate work on this project upon receipt of a signed copy of this contract amendment.

#### AUTHORIZATION

CES is prepared to initiate work on this project upon authorization by the CLG. Work will be performed in accordance with the contract Terms and Conditions and Rate Schedule previously executed by CLG and CES under contract 10424.020. The proposed costs, upon approval by the CLG, will be added to the Stormwater Investigation project budget (10424.020). An estimate to completion will be prepared when 25 percent of the budget remains. This estimate will include an analysis of remaining contracted tasks and an evaluation of any additional items requested or approved by the CLG.

If you have any questions concerning this proposal or if additional services are needed, please contact me at (207) 404-5958. CES, Inc. appreciates this opportunity to be of service to the CLG.

Sincerely,  
CES, Inc.



Christopher Buckman, P.G.  
Senior Project Manager

CFB/jnc  
Enc

Acceptance and Authorization to Proceed on behalf of Coakley Landfill Group:

Signature: \_\_\_\_\_ Billing Address: \_\_\_\_\_

Printed Name: \_\_\_\_\_ City/State/ZIP: \_\_\_\_\_

Date: \_\_\_\_\_ Email (Optional): \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_



Acceptance on behalf of CES, Inc.:

Signature: \_\_\_\_\_ Billing Address: \_\_\_\_\_

Printed Name: \_\_\_\_\_ City/State/ZIP: \_\_\_\_\_

Date: \_\_\_\_\_ Email (Optional): \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_



Engineers ♦ Environmental Scientists ♦ Surveyors

October 2, 2020

Mr. Peter Britz  
Coakley Project Coordinator  
Coakley Landfill Group  
1 Junkins Avenue  
Portsmouth, NH 03801

**RE: Proposal for Surface Water Treatment, Access Agreement Preparation, and Beaver Mitigation Contract Management | Coakley Landfill Superfund Site | North Hampton and Greenland, New Hampshire  
Contract Amendment No. 10424020-04**

Dear Peter:

CES, Inc. (CES) is pleased to submit the following contract amendment and description of services to the Coakley Landfill Group (CLG) for the removal of a culvert blockage at the Coakley Landfill Superfund Site (Site). The Scope of Services for this proposal is based on the Surface Water Evaluation Scope of Work (Scope of Work) developed by CES on behalf of the CLG and submitted to United States Environmental Protection Agency (USEPA) and New Hampshire Department of Environmental Services (NHDES) on January 22, 2020. The Scope of Work was developed as per USEPA request on November 22, 2019 in its response to the Stormwater Investigation Report submitted on September 24, 2019. The USEPA and NHDES provided comments to the Scope of Work in a letter dated April 2, 2020 (provided via email correspondence on April 6, 2020). The following proposal is designed as an amendment to existing Stormwater Investigation contract (10424020-03R) provided to the CLG on May 20, 2020 and executed between CES and the CLG on June 17, 2020.

## **SCOPE OF SERVICES**

The following scope of services includes the item(s) required to support the ongoing Surface Water Evaluation and HB 494 Surface Water Treatment Remedy (Remedy) implementation. This task includes culvert blockage removal and subcontractor oversight on behalf of the CLG as detailed below.

**Task 1 - Culvert Blockage Removal:** Due to a blockage of the culvert by beaver activity located north and west of the landfill, surface water is unable to flow from areas east of the railroad easement to areas west located within the larger wetland complex. As such, the removal of this blockage is required to facilitate ongoing Surface Water Evaluation and Remedy implementation

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activities. CES will subcontract with MAC Construction & Excavation, LLC (MAC) to remove the blockage and restore flow between these two wetlands. Material removed during this process will be side casted either side of the easement but within the boundaries of the parcel. These activities have been approved through the execution of a temporary access agreement between CES and the New Hampshire Department of Transportation (NHDOT) on August 19, 2020. CES will provide oversight of the culvert blockage removal and will consist of photo documentation of the removal and coordination with the subcontractor to ensure the work area is secured and left in a condition so as not to result in negative impacts to the easement. Subcontractor oversight will be provided in accordance with conditions of the access agreement between CES and NHDOT.

### IMPLEMENTATION SCHEDULE

Schedules will be dependent upon the availability of the subcontractor outlined above and subject to the terms of the temporary access agreement with the NHDOT. These terms include approval by the NHDOT to enter the easement following notification by CES of the proposed work schedule.

### COMPENSATION

Removal of the culvert blockage is in addition to the scope of services provided in Task 5 (Beaver Dam Removal Assistance) of amendment 10424020-03R. This task, as originally provided, was used in procurement of the access agreement with the NHDOT and contracting with the United States Department of Agriculture (USDA) for beaver mitigation services. CES proposes the following not-to-exceed costs for the above-mentioned task.

TASK	DESCRIPTION	COST ESTIMATE
1	<b>Culvert Blockage Removal</b> Subcontractor oversight and documentation on behalf of CLG.	CES Labor and Expenses: \$1,200.00 Subcontractor Costs: \$7,425.00
	<b>TOTAL</b>	<b>\$8,625.00</b>

The not-to-exceed budget listed above includes costs associated with sub-contractors, labor, documentation of blockage removal, and reimbursable expenses. Costs associated with subcontractor approval and coordination with the NHDOT are being managed through the budget included under Task 8 (HB 494 Technical Assistance) of Contract Amendment 10424020-03R.

Costs for this project will be invoiced monthly, based upon the work completed during the invoice period. CES is prepared to initiate work on this project upon receipt of a signed copy of this contract amendment.



### AUTHORIZATION

CES is prepared to initiate work on this project upon authorization by the CLG. Work will be performed in accordance with the contract Terms and Conditions and Rate Schedule previously executed by CLG and CES under contract 10424020. The proposed costs, upon approval by the CLG, will be added to the Stormwater Investigation project budget (10424020). An estimate to completion will be prepared when 25 percent of the budget remains. This estimate will include an analysis of remaining contracted tasks and an evaluation of any additional items requested or approved by the CLG.

If you have any questions concerning this proposal or if additional services are needed, please contact us at (207) 795-6009. We appreciate this opportunity to be of service to the CLG.


Sincerely,  
CES, Inc.



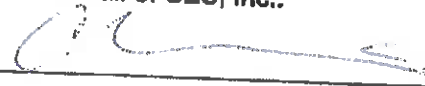
Christopher Buckman, P.G.  
Senior Project Manager

CFB/jok  
Enc

Acceptance and Authorization to Proceed on behalf of Coakley Landfill Group:

Signature:  Billing Address: 1 Junkies Ave  
Printed Name: Peter Britz City/State/ZIP: 03801  
Date: 10/21/20 Email (Optional): pbritz@cityofportsmouth.com  
Phone: 603 610-7215 Fax: \_\_\_\_\_

Acceptance on behalf of CES, Inc.:

Signature:  Billing Address: 415 LISBON ST, SUITE 200  
Printed Name: CHRISTOPHER BUCKMAN City/State/ZIP: LEWISTON, ME 04240  
Date: 10/21/2020 Email (Optional): cbuckman@cesincusa.com  
Phone: 207 404 5958 Fax: \_\_\_\_\_