

# STAFF REPORT

THE CORPORATION OF THE TOWN OF COBOURG



<b>Report to:</b>	Mayor and Council Members	<b>Priority:</b>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Low
<b>Submitted by:</b>	Bill Peeples, Manager Environmental Services <a href="mailto:bpeeples@cobourg.ca">bpeeples@cobourg.ca</a>	<b>Meeting Type:</b>  Open Session <input checked="" type="checkbox"/> Closed Session <input type="checkbox"/>	
<b>Meeting Date:</b>	June 21, 2021		
<b>Report No.:</b>	Public Works-042-21		
<a href="#">Submit comments to Council</a>			

**Subject/Title:** Award of Contract CO-21-07 ENV Anaerobic Digester Clean Out Plant #1

## RECOMMENDATION:

THAT Council approve the low bid from Terrapure Environmental at a cost of \$65,533 (Price includes the non-refundable HST) for the Digester Cleanout at Water Pollution Control Plant #1 Contract CO-21-07 ENV.

## 1. STRATEGIC PLAN

N/A

## 2. PUBLIC ENGAGEMENT

N/A

## 3. PURPOSE

To remove inert material from the Digester which is a requirement on a 5 to 7 year basis.

## 4. ORIGIN AND LEGISLATION

Environmental Services 2021 Capital Budget

## 5. BACKGROUND

Standard practice is that the Anaerobic Digester be taken out of service for cleaning and general maintenance every 5-7 years. Cleaning involves the physical removal of inert (i.e. non-biodegradable) material such sand, hair, grit and plastics. Once the tank has been emptied and cleaned, routine maintenance is performed. This includes checking the tank's concrete floor and walls for cracks, ensuring that the mix jets are free from any obstructions and all sacrificial (i.e. zinc) anodes\* are replaced.

*\*Sacrificial anodes preferentially degrade so that the steel (i.e. iron) inside the Digester will not corrode.*

## 6. ANALYSIS

Over time, sand and other inert material can accumulate inside the sealed Digester. When amount of debris becomes significant, the Digester will lose efficiency since the inert material is occupying volume that could otherwise be used for the anaerobic digestion of sludge.

The Anaerobic Digester at Plant #1 has not been taken out of service for cleaning and maintenance since the Primary Digester Roof replacement job in 2012 (9 years). Plant #1 began experiencing random line blockages in the overflow line in 2020, indicating that a considerable amount of debris was, in fact, present inside the Digester. It is critical to the proper operation of the Digester that this extraneous material be removed.

## 7. FINANCIAL IMPLICATIONS/BUDGET IMPACTS

A tender was advertised on Biddingo from March 17<sup>th</sup> to June 1<sup>st</sup>, 2021 for the Digester Cleanout at Plant #1. Three bids were received:

Contractor	Cost	Non-Refundable HST	Total Cost
Entec	\$147,500	\$2,596	\$150,096
Terrapure	\$64,400	\$1,133	<b>\$65,533</b>
Wessuc	\$176,178	\$3,101	\$179,279

Three references were contacted for Terrapure and all responses were positive. Further, the Terrapure process removes 100% of the removed material from the facility. Screened solids are taken to a local landfill and the liquid phase is trucked to a Terrapure storage facility, where it is stored until it can be land applied.

Typical practice for this cleanout involves removal of only the solid phase and the return of the separated liquid phase back into the Plant. The liquid returned is usually high in ammonia which can impact the Plant effluent quality. The proposal from Terrapure provides added value to the WPCP operations by removing the entire contents of the digester.

It is recommended that the low bid from Terrapure for \$65,533 (including non-refundable HST) be accepted. Council approved \$300,000 for this project in the 2021 Environmental Capital Budget.

## 8. CONCLUSION

Terrapure is the lowest bid and is considered to be the best value for the Town.

## Report Approval Details

Document Title:	Digester Cleanout- Plant 1 - Public Works-042-21.docx
Attachments:	
Final Approval Date:	Jun 9, 2021

This report and all of its attachments were approved and signed as outlined below:

**Tracey Vaughan, Chief Administrative Officer - Jun 9, 2021 - 11:46 AM**