Date: Monday, January 13, 2025

From: Niall Lobley, CAO, Patty Sinnamon, CAO

Subject: Full Decommissioning of Biodigester and Site Rehabilitation

Report CAO2025-01

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Recommendation

That staff be directed to engage OCWA on a sole source basis for preparing a Biodigester Full Decommissioning and Site Rehabilitation Plan, and,

That the Joint Councils recommend to the BioGRID Board that $50,000 be allocated from the Future Capital Reserve held by each municipality to the 2025 budget for the completion by OCWA and their sub-consultants of a Biodigester Full Decommissioning and Site Rehabilitation Plan that considers options for both full and partial decommissioning and site rehabilitation, and,

That through the development of a Biodigester Full Decommissioning and Site Rehabilitation Plan, a detailed review of the existing licenses and regulatory approvals on the property is completed to inform if there is potential alternative uses for the property under said licenses, and,

That staff be directed to explore through the decommissioning plan, potential alternative uses for the site and assets associated with the Biodigester and under the existing approved and Licensed uses and,

That staff be directed to bring before the Joint Council prior to Budget 2026 processes, a recommended approach to decommissioning.

Background

The Townships of Georgian Bluffs and Chatsworth jointly own a 45-acre property and assets on that property, at 062111 Sideroad 3 in the former Township of Derby, between Concessions 5 and 7. The property consists of a number of wastewater lagoons and associated infrastructure such as spray fields, for receiving and treating wastewater which date from 1975. In 2011, the Townships developed a small

biodigester on site to generate natural gas and supply electricity to the grid under a feed in tariff system.

The site is currently managed as it has been for several years, by the Ontario Clean Water Agency (OCWA) under contract to the Townships. The Biodigester has experienced challenges throughout its operational life to date and has not generated the revenue for the Townships as was originally anticipated. Further, omissions to the original design and construction have had operational impacts, and equipment failures have been challenging to overcome.

In Summer, 2021, in advance of undertaking capital reinvestment in repairs, Township staff received a proposal for Decommissioning and Recommissioning of the Biodigester after the failure of part of the Biodigester. The intent of the plan was to understand a short-term suspension of operations with an expectation of resuming operations.

In late 2021, it was decided to ‘winterize’ the biodigester, ceasing operations on a temporary basis. Using the decommissioning plan as a guide, steps were undertaken to place the biodigester into a temporary state to cease operations while the Townships decided on the Biodigesters eventual fate. It should be noted that the winterization was not a full decommissioning and only partially addressed the decommissioning steps outlined in the Decommissioning and Recommissioning report. Further, it was intended to place the biodigester into a short-term suspension of operations so that it could be brought back online.

The Biodigester has remained inactive since late 2021.

In May 2023, the Joint Councils of Georgian Bluffs and Chatsworth met to review a proposal for a private operator to assume the operations of the shared Biodigester. After a competitive RFP process, only one submission of interest was received. The Joint Councils elected not to move forward with this proposal given the scale of operation the proponent was proposing, the volume of material that would be brought onto site and the fact that a significant proportion of the materials being processed would be being transported inter-regionally to the site.

Subsequent to that meeting, staff followed up with potential partners that had expressed interest, but not submitted proposals to seek to better understand any opportunity that might exist for a private operator to assume the operations. Through these discussions it was clear that the operation of the existing biodigester is not attractive to operators. In essence, the existing facility contains dated technology and is unable to process sufficient materials reliably to make operations commercially viable. In order that the biodigester be a commercially viable venture, significant infrastructure and expansion is required as well as a concerted effort to source both a quantity and nature of feedstock to support commercial operation.

In summer 2024, staff met with and attended the site with staff from OCWA to discuss potential next steps in respect to the Biodigester, in order to seek understanding of the needs for further decommissioning.

Analysis

Staff have been asked by the Joint Councils and Biodigester Board to investigate and report on next steps for the Biodigester. It is recommended that in the absence of commercially viable solution for the existing facility, work should be commenced on exploring what is required for a decommissioning of the Biodigester.

Alternatively, staff could be directed to explore what would be required from a capital and operating perspective to bring the Biodigester back to operational capabilities; it has become apparent that without significant investment and expansion, the operations of a Biodigester on site is not commercially viable. Based on past discussions of the Joint Councils, staff provide some discussion on decommissioning, rather than re-initiating, within this report.

The Biodigester operation consists of several assets (or liabilities):

- There are several above ground large storage tanks
- There is a building which contains mechanical equipment, control equipment and smaller tanks and pumps
- There are a number of underground storage tanks and a network of piping between tanks

These assets are currently in a winterized state. In this state, they still contain materials, including septage waste. Several of the tanks are open to the elements and have received water through precipitation.

Staff anticipate, based on discussions, that decommissioning of the site can be phased and scoped over a number of years (two or three), or, completed within a shorter period of one year.

Option 1: Full Decommissioning and Site Rehabilitation

A full decommissioning of the site would see the property returned to a condition similar to before the biodigester was established. This would be the removal of all septage materials, their treatment and disposal, the removal of all assets including underground piping and tanks, the removal of the control building and all equipment within it and the removal of the above ground storage tanks. Full decommissioning would manage the current and future risks and liabilities of the site fully and would leave the property dedicated to the management of the lagoons. There would be no further future

operating costs associated with the Biodigester (the lagoons would remain operational) to either municipality.

While OCWA has not sought to obtain a detailed decommissioning plan, it is anticipated that a full decommissioning and rehabilitation of the site would likely be in the order of $2 - $2.5M. It is noted that this is a high-level estimate and would include offsets through the sale of any assets retaining value on site. This indicative number is subject to significant additional refinement through the development of a site decommissioning proposal.

Option 2: Partial Decommissioning

In discussion with OCWA there is potential to consider a partial decommissioning. This would seek to remove the more significant liabilities on the property such as the remaining septage and septic materials, seek to dispose of assets with financial value and address areas of risk and liability concern such as underground tanks.

Assets determined to be a lower risk would be left on site. This could include underground pipes, large above ground tanks and the building.

A partial decommissioning would significantly reduce liabilities on the site, especially environmental. It would address risks and would reduce year on year operating costs. However, the assets that remain on site would need to be maintained to ensure they did not become hazardous; for example, work would be required to maintain the building to prevent or manage deterioration to the point of collapse. Some assets, such as the above ground tanks, hold some risk in so far as anyone trespassing on the property could become trapped within these.

It is anticipated that there would be residual and long-term operating costs associated with the Biodigester to maintain any assets that were not removed from the site. The extent of these costs is dependent on the assets that are retained.

Option 3: No further decommissioning

The site could be left as it currently is. Septage materials are currently located in above ground tanks, in below ground tanks and in tanks within the building. These materials would remain in place. This approach would accept the existing liabilities and risks and address this on a reactionary basis as needed. Continual management and maintenance of the site would be required to help manage and reduce these risks and liabilities. Over time, staff anticipate that increasing capital costs would be incurred to repair or remove assets as they age.

It is anticipated that there will be a long term need for continued operational costs associated with the site and as the assets age and deteriorate, that these costs will likely increase.

Staff note that Option 3 should be considered while noting that this will likely not be ultimately recommended by staff. The existing status of the biodigester will create future liabilities if left as tanks will, if left, fail, risking environmental spills. While this is not an imminent risk, it will increase over time without intervention. As such, it is unlikely that a 'do nothing' approach will ultimately be recommended.

Operating Costs

The draft 2025 budget indicates that the Biodigester costs approximately $66,000 annually to maintain. These costs are largely the service contract with OCWA, heating and electrical costs and repairs that are required. These costs are likely to increase over time as the facility ages, deteriorates and requires additional management.

There is no offsetting revenue generated by the biodigester at this time and so this is a net cost shared by the municipalities.

The costs for operating the lagoons are approximately $150,000 annually in contract costs to OCWA for operational oversight and hydro.

There is an offsetting revenue of approximately $100,000 annually generated by septic haulage from the private sector to the site. The residual deficit from operations is absorbed by the municipalities.

Both municipalities have an equal ownership in the site and assets/liabilities on the site. Any revenue offsets the costs of both, and any expenses are equally shared by both.

Potential Future Reuse of the Site

The Request for Proposal process undertaken in 2023 sought to identify potential operators for the existing Biodigester facility. As noted, this was not successful; the only prospective vendor sought to replace the existing biodigester with a larger system and bring in feedstock from a much broader geographic area. The Joint Councils directed staff to not proceed with this proposal.

However, through this process, one vendor expressed some interest in potential alternative uses for the site and in particular, the potential for the use of the above ground tanks for the temporary storage of agricultural waste materials prior to their reuse; manure products collected from one location, prior to being used for fertilizer through land application in another.

It is unclear whether such uses would be aligned with the existing License on the property, what negative and positive impacts would be of such use and what a potential revenue model could look like, but the interest expressed does demonstrate that there could be additional or alternative uses for the site to be explored.

Prior to pursuing these, staff would need to understand the extent and scope of existing licensed uses and explore further as to what potential use of the sites there are, who might be interested in making use of the site, and the impacts, positive and negative, of such uses to the municipalities.

Next Steps

Staff have asked OCWA to provide a cost for completing a decommissioning plan (see attached) which would evaluate the current situation and propose options for full and partial decommission of the Biodigester. OCWA have indicated that a Full Decommissioning and Site Rehabilitation Plan that will consider options for various scopes of decommissioning of the Biodigester can be completed for less than $50,000.

This proposed plan will build on the Decommissioning and Recommissioning work completed in 2021 with a view to no longer operating the Biodigester and will provide options for partial decommissioning along with a risk and liability assessment and estimated operating cost impacts of varying extents of decommissioning. The plan will also include a phased approach for decommissioning that could be implemented over successive years.

Staff are recommending that $50,000 be added to the 2025 Biodigester Budget so that a detailed decommissioning plan can be developed to be considered by the Joint Councils before budget, 2026 discussions commence. Staff recommend that given OCWAs extensive knowledge of the past operations and winterization of the site, that OCWA be asked to complete this work and the that Joint Councils waive the requirement for competitive tender or RFP in respect to developing the Decommissioning and Site Rehabilitation plan.

Financial Impact

It is anticipated that the Plan can be developed in 2025 at a cost of no more than $50,000. The BioGRID Board holds a Future Capital Reserve in the amount of approximately $476,000 (these fund are held by each Township to the amount of approximately $238,000). It is recommended that these funds be allocated from that reserve in 2025.

Longer term, if decommissioning is to be explored, staff expect costs to be within the order of $2M to $2.5M to be potentially incurred in between 2026 and 2028, or over a shorter period.

The impact to each municipality, assuming the upper end costs, would be $1.25M over 1 – 3 years.

Strategic Priorities

Enhancing Environment and Infrastructure: Managing Water and Wastewater

Conclusion

The Biodigester located in the former Township of Derby and owned and operated jointly by the Townships of Georgian Bluffs and Chatsworth has not been operated since 2021 after being winterized. An RFP process to identify a potential private operator of the facility was complete in 2023 without success. The biodigester has been challenging to run and has not generated the return through energy production and waste management that was initially anticipated. Staff are seeking Councils direction to undertake a comprehensive decommissioning and site rehabilitation plan to inform future financial needs, challenges, and opportunities over coming years.

Respectfully Submitted: Niall Lobley, CAO, Georgian Bluffs.