

Report to Council



Date: April 1, 2019
File: 1880-01
To: City Manager
From: Kevin Van Vliet, Utility Services Manager
Subject: Wastewater Utility 2019 Update

Report Prepared by: Mike Gosselin, Wastewater Operations Manager

Recommendation:

THAT Council receives, for information, the report from the Utility Services Manager dated April 1, 2019, pertaining to an update on the City wastewater utility.

Purpose:

To provide Council with information on wastewater utility operations and items affecting utility rates over the longer term.

Background:

The City of Kelowna provides wastewater collection and treatment services to approximately 70 percent of all residents within the City. All wastewater collected is treated at the City's state of the art biological nutrient removal (BNR) wastewater treatment facility before safely discharging to Okanagan Lake. Biosolids collected in the process are composted at a facility operated jointly with the City of Vernon and sold as "Ogogrow"; an unrestricted Class A compost product.

The wastewater utility manages more than \$750 million worth of assets. These assets include two wastewater treatment facilities, 45 wastewater lift stations, over 590 kilometres of wastewater mains and the equipment required to maintain these assets and provide a high level of service to Kelowna residents.

The Kelowna wastewater treatment facility has been a leader in the industry for BNR, and has been the flagship of the wastewater community for cold weather BNR operations for over 20 years. This facility has been featured in several industry publications, has headlined discussions at the Annual Water Environment Conference and has provided a strong connection with the community and industry through facility tours and outreach.

Energy Management

Energy management has been a long-standing key performance indicator (KPI) for the wastewater utility. In 2018, staff commissioned an energy audit at the wastewater treatment facility. The audit suggested several potential energy savings opportunities; three of these proposed changes have been included in the 2019 budget, with other suggestions to be pursued over the next few years.

Utility Services Re-Organization

In 2018, Utility Services initiated a staff re-organization to streamline both wastewater operations (collection and treatment) and water operations. Over the next two years the wastewater utility will combine all wastewater operations equipment and staff in one location. Housing the groups in the same location will enable effective communication, direction and customer support, as well as allow the utility to further explore operating efficiencies. Some capital funding was approved for this transition in 2019 in anticipation of the changes.

Regional Biosolids Composting Facility (RBCF)

The RBCF is approaching capacity and significant capital investment will be required to either increase capacity or modify our treatment process to extend the life of the existing facility. On February 26, 2018 staff updated Council on a technical review of how best to address the growing volume of biosolids being managed at the RBCF. Expanding the composting capacity is not only challenged with new capital and regulatory needs, but requires a guaranteed source of hog fuel that has proven difficult to sustain. The review recommended proceeding with the preliminary design of biosolids digestion over simply expanding the existing compost facility to provide more capacity. Further technical review and analysis is being conducted in 2019. Biosolids digestion, or expanding the compost facility, is estimated to cost between 30 and 50 million dollars. As the need is mainly driven by growth, staff will work to assess an appropriate project cost for the DCC program. As the cost of accommodating growth in biosolids management is substantial and the exact funding of that project needs to be worked out, staff will be recommending a 1 year adjustment in wastewater utility rates. This will allow for more informed decisions around longer-term wastewater rates for Kelowna beginning in 2020.

The new Operating Permit (July 2017) for the RBCF added the following requirements that staff have been working to comply with:

Requirement	Due	Status
Update Odour Management Plan	Nov 30, 2017	Complete
Conduct Air Emissions Review Study	Mar 31, 2018	Complete
Select and Implement Secondary Odour Treatment Process	Selection Oct 2018, implementation June 2019	Extension to June 2020 approved by the Province
Submit updated Design and Operating Plan	May 31, 2019.	Reviewing final draft In progress

Ensure all leachate management uses impervious containment	Oct 31, 2018	Extension to summer 2019 requested of MoE. Environmental requirements completed in 2018. Construction phase to be completed in Spring-Summer 2019.
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In addition to the Permit requirements required by the Ministry of Environment outlined above, the Province began a consultation process on revisions to the Organic Matter Recycling Regulation in the fall of 2018. Most of the proposed changes will have little impact on the RBCF or the City of Kelowna, or will be manageable. However, one proposed change would be to require that existing biosolids compost facilities be fully enclosed within 10 years of changes to the regulation; regardless of consideration to location of the facility or historical community impact. Given the size of our facility, this regulatory change would have a very significant financial impact on our operation and threatens its financial viability. Staff provided a strong and clear response to the proposed change to inform the Ministry of the serious implications this decision would have on our compost facility.

Internal Circulation:

Divisional Director, Infrastructure
 Financial Planning Manager
 Infrastructure Engineering Manager
 Utility Planning Manager
 Communications Consultant

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

Existing Policy:

Financial/Budgetary Considerations:

Personnel Implications:

External Agency/Public Comments:

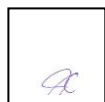
Communications Comments:

Alternate Recommendation:

Submitted by:

K. Van Vliet, P. Eng. Utility Services Manager

Approved for inclusion:



J. Creron, Deputy City Manager - Operations

cc:

Divisional Director, Infrastructure
 Infrastructure Engineering Manager
 Utility Planning Manager
 Senior Engineer, Infrastructure
 L. Wilson, Communications Consultant