



## STAFF REPORT

**Title:** 2020 Capital Budget Amendment - Cold Lake Regional Utility Services Commission (CLRUSC) Wastewater Treatment Plant (WWTP) Moving Bed Biofilm Reactor (MBBR) Design

**Meeting Date:** June 9, 2020

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### **Executive Summary:**

In 2020 Council allocated \$1,000,000 for the engineering design work of the Cold Lake Regional Utility Services Commission (CLRUSC) new Wastewater Treatment Plant (WWTP). The new waste water treatment plant will be based on Moving Bed Biofilm Reactor (MBBR) technology. The CLRUSC completed the pilot study on the new plant in May 2020 and will be moving to the design stage.

The budget of \$1,000,000 was to be funded from Gas Tax Fund (GTF) but the gas tax grant funding agency conveyed that, while the WWTP upgrade as a whole (including construction) is eligible for the Gas Tax grant, the MMBR design component alone is not eligible for the Gas Tax grant. This situation necessitated revisiting the funding options and realigning the funding source for MBBR design to MSI ID349.

### **Background:**

The CLRUSC WWTP Feasibility Study (2018) examined a number of treatment options to provide solutions for reducing ammonia toxicity, nutrient removal, and ultimately to meet the stringent effluent limits required by Environment Canada (EC) and Alberta Environment and Parks (AEP) regulations. Of the various options reviewed, the Moving Bed Biofilm Reactor (MBBR) was recommended for future testing as a pilot program.

In line with the recommendations of the Waste Water Treatment Facility Feasibility Study (2018) CLRUSC initiated a Pilot MBBR study in November 2020 to evaluate the effectiveness of the technology. The pilot project was in operation for 7 months till May 2020. The pilot program is believed to have collected adequate data to evaluate its performance under winter climatic conditions and reducing ammonia toxicity, and ultimately to meet the stringent effluent limits. The results of the pilot study in the form of a Draft Report from consultant is expected to be available for review in June 2020.

The existing wastewater system license is due to expire on Jan 1, 2022. AEP expects the Commission to upgrade the WWTP and be operational by 2022 in order to meet the desired effluent criteria. To meet AEP's expectation and timelines, the overall upgrade to the WWTP is planned and staged in such a consecutive manner that once the final



report of the pilot study is available, a proponent must be on board without elapsed time to proceed with the design of the full scale MBBR and other upgrades.

The project budget was to be funded from GTF but the funding agency advised that the design only component of the project is not eligible under GTF guidelines. The City have \$1,000,000 available from ID349 MSI allocation so therefore the funding source of this project is being recommended to be changed to ID349 MSI and the GTF allocation will be realigned to other capital projects.

**Alternatives:**

1. Pass a motion to reassign the funding (\$1,000,000) source for the CLRUSC Wastewater Treatment Plant MBBR Design to the Improvement District No. 349 MSI, instead of Gas Tax grant
2. Reject a motion to reassign the funding (\$1,000,000) source for the CLRUSC Wastewater Treatment Plant MBBR Design to the Improvement District No. 349 MSI, instead of Gas Tax grant.

**Recommended Action:**

Administration recommends that Council pass a motion to reassign the funding (\$1,000,000) source for the Cold Lake Regional Utility Services Commission (CLRUSC) Wastewater Treatment Plant (WWTP) Moving Bed Biofilm Reactor (MBBR) Design to the Improvement District (ID) No. 349 MSI, instead of the Gas Tax Grant.

**Budget Implications (Yes or No):**

Yes

**Submitted by:**

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