



Report to the Westside Regional Wastewater Treatment Plant Stakeholder Committee

From: David Komaïke, Director of Engineering Services

Date: February 8, 2021

RE: **2020 Project Update**

Recommendation

THAT the Westside Wastewater Treatment Plant Stakeholder Committee receives this report for information.

Background

This report is meant to provide a brief update on several initiatives at the Westside Regional Wastewater Treatment Plant and East Trunk Sewage System. This includes both operational changes and capital projects.

Biosolids Management Update

Administration continues to investigate new options for the treatment of the WWTP biosolids as they become available. We are happy to report that a third alternate location for the composting of organic waste has been secured. Our available options now include:

- Sticklands Composting – 3600 tonnes (Red Deer) - Trucking and Treatment – Approximately \$170/tonne
- Kevin Curtis Composting – 1000 tonnes (Vernon) – Trucking and Treatment – Approximately \$110/tonne
- Arrow Trucking – 400 tonnes (Princeton) – Trucking and Treatment – Approximately \$110/tonne

The net effect these new options is a reduction in biosolids transportation and treatment costs of about \$84,000 per year. The secondary, and perhaps more important, impact of the new contracts is the development of local treatment options for biosolids management. The local options are 35% cheaper and have a much lower GHG emissions, which will further assist the Regional District in meeting its long term reduction strategies.

TWAS Vault Expansion

The TWAS Vault expansion/replacement at the WWTP is nearing completion and is now in operation. The Project will be constructed below the approved budget and will facilitate the growth of the WWTP for the next 4th and 5th stages of growth.

WWTP HVAC Upgrades

The upgrading and replacement of the heating and ventilation equipment of the UV Building has now been completed and is currently being commissioned. The new system incorporates the use of both natural gas and a heat-pump to reduce the operating cost and increase energy efficiency. This will further reduce our GHG footprint for the facility.

East Trunk Sanitary Sewer and Lift Station - Predesign Studies

The predesign studies for both the East Trunk Lift Station and East Trunk Sewer Upgrade have now been submitted for preliminary review. Based upon the detailed engineering review of the existing infrastructure, it appears that the Regional District will be able to delay several significant capital projects by several years. This will allow the DCC reserve to grow and reduce the need to finance these important capital improvements.

Highlights of the Predesign Studies:

East Trunk Lift Station

- Steps taken to reduce the friction losses in the East Trunk Forcemain appear to have increased the capacity of the existing lift station.
- It is likely that additional capacity may be obtained, for the short-term, by upsizing the pumps/motors. This would delay the construction of the new lift station by 5-7 years or more depending upon the growth rate experienced.
- Additional capacity may come from the twinning of the forcemain, which could further delay the new lift station.
- Numerous locations for a new lift station are under review.

East Trunk Sanitary Sewer

- Preliminary findings have determined that the capacity of the sanitary sewer is at approximately 70-75% capacity and is OK for the short-term.
- The primary capacity issues arise when the Casa Loma Lift Station empties into the sewage system.
- Upgrades to the Casa Loma Lift Station will trigger the need to upgrade the trunk sewer.