



September 27, 2016

Ermineskin Community League
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Edmonton, AB, T6J4A6

Update - Sewer Odour in Steinhauer/Duggan Area

Over the years, residents have reported sewer odour smell to the City of Edmonton, mostly near the intersection of 34 Avenue and 106 Street. The City, together with the University of Alberta and other industrial partners, is working on studies and plans to find a long-term solution to address this issue.

This is an update to the information the City provided in September 2015.

What causes the odour?

The odorous compounds (predominantly hydrogen sulphide) are formed as a result of the natural decomposition of organic matter in the wastewater. These odours cause problems when the air in the sewers escapes to the surface.

Wastewater collected from local homes and businesses is carried to deep underground wastewater trunk sewers through structures called drop shafts. As the wastewater travels through local sewers and descends through the drop shafts into the deeper trunks, it can become turbulent and cause the odorous compounds formed in the wastewater to escape as gases. Under certain conditions, the gases can vent through manholes and other openings to the surrounding areas.

What is being done?

Previous attempts over the years to prevent the release of odours in the area included:

- installing one-way flaps in selected catch basin leads;
- sealing manhole openings; and
- regular flushing of the lateral sewers to remove sediment and stagnant water.

This approach has had limited success, as the City continues to receive odour reports. We are therefore conducting a thorough study to find long-term solutions.

Long-term approach

This approach is looking at reducing the formation of the odorous compounds at the source, and mitigating any releases into the community.

- Extensive field data (gas pressures and hydrogen sulphide concentrations) is being collected in the sewer trunks from Bonnie Doon all the way to the Blue Quill/Twin Brooks areas to better understand how the sewer gases are formed and also how they escape into the communities.
- Inspection and cleaning of selected deep trunks in and leading to the area to remove sediment and organic materials built-up over the years are being investigated. This approach is expected to reduce the formation of the odour compounds. This project will start all the way from the 111 Street/29A Avenue intersection and toward the east to the Bonnie Doon area. We are currently looking at the logistics to get a contractor (who has the right equipment to access these deep trunks) on board. The execution of this plan will start in 2017.
- Laboratory testing at the University of Alberta to fully understand the effectiveness of some of the preliminary engineering solutions that have been identified. These solutions include:
 1. Making changes to two drop shafts at 111 Street/29 Avenue and 106 Street/34 Avenue. Construction is planned for 2019-2020.
 2. Treating odorous compounds at some strategic locations, including pump stations at Blue Quill, Twin Brooks and Blackburne. The implementation will start in 2019.
 3. Upgrading and modifying the operating mechanism of the Duggan Pump Station located at 105 Street/45 Avenue. This will start in 2020.
 4. If possible, installing one or two vent stacks at 111 Street and 34 Avenue to reduce the trunk sewer air pressure. These are planned for 2020.

For more information, please contact:

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