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The Regional Municipality of Durham Information Report

From: Commissioner of Works

Report: #2024-INFO-72 Date: November 1, 2024

Subject:

Carruthers Creek Sanitary Sewage Pumping Station Odour Concerns

Recommendation:

Receive for information.

Report:

1. Purpose

1.1 To update Regional Municipality of Durham (Region) Council and residents on recent community odour concerns in the area of the Carruthers Creek Sanitary Sewage Pumping Station (SSPS), the odour monitoring conducted around the site and potential odour control measures.

2. Background

- 2.1 The Carruthers Creek SSPS is located in a residential area in the Town of Ajax, south of Bayly Street East and east of Pickering Beach Road. The station handles sewage from developed lands as well as diverted flow from other sections of the municipal sanitary sewage system.
- 2.2 The Region investigated and trialed alternative approaches to controlling odour and corrosion in the collection system downstream of the Carruthers Creek SSPS forcemain discharge. The investigation concluded that ferrous chloride was the recommended approach to reducing hydrogen sulphide (H2S) gas concentrations impacting downstream sewers.

2.3 Carruthers Creek SSPS Chemical Upgrades is ongoing and is making modifications to the SSPS to apply ferrous chloride to the wastewater as it is pumped out of the SSPS, and requires improvements to accommodate the chemical storage, application and monitoring equipment. The temporary chemical dosing system using Bioxide has been replaced with a ferrous chloride dosing system in June 2024.

3. Odour Concerns in the Local Area

- 3.1 Beginning August 14, 2024, Works Department staff received several emails and telephone calls from residents in the area local to Carruthers Creek SSPS. The residents reported foul odour at specific evening hours that seemed to be attributed to the SSPS. Staff responded immediately with a site visit to investigate. They immediately implemented a plan to monitor the local area at specific locations for approximately six weeks to determine if odours were attributed to the SSPS and when they were occurring to better understand and diagnose the issue.
- 3.2 The Region received complaints from multiple residents during the monitoring period. Complaints were also reported to the Town of Ajax and the Ministry of the Environment, Conservation and Parks. The Works Department concluded its investigation on October 7 and found that odours were observed and attributed to the Carruthers Creek SSPS.

4. Next Steps

4.1 In response to the observed odours from the SSPS, the Region retained a consultant, CIMA+, to collect odour samples and conduct continuous H2S monitoring for three weeks outside and inside of the SSPS. This monitoring program began the week of October 16, 2024. The consultant will prepare an odour emission report by the end of 2024. This will be followed by a technical memorandum outlining suitable technologies with recommendations on design and implementation. The consultant will also investigate odour mitigation measures within the SSPS that could reduce odour formation.

5. Relationship to Strategic Plan

- 5.1 This report aligns with/addresses the following strategic goals and priorities in the Durham Region Strategic Plan:
 - Environmental Sustainability Protect, preserve and restore the natural environment, including greenspaces, waterways, parks, trails and farmlands.

- b. Enhance community safety and well-being.
- c. Optimize resources and partnerships to deliver exceptional quality service and value.

6. Conclusion

- 6.1 Several concerns have been received by the Works Department from local area residents. The Works Department has responded to each resident and undertaken a monitoring plan, retained a consultant, and will further investigate potential odour control measures within the Carruthers Creek SSPS.
- 6.2 This report will be forwarded to residents, the Town of Ajax, and the Ministry of the Environment, Conservation and Parks for information.
- 6.3 For additional information, contact: Mike Hubble, Director, Environmental Services, at 905-668-7711 extension 3460.
- 6.4 Prepared by: Tavis Nimmo, Manager, Water Resource Monitoring and Protection, at 905-668-7711, extension 3737.

Respectfully submitted,

Original Signed By:

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