



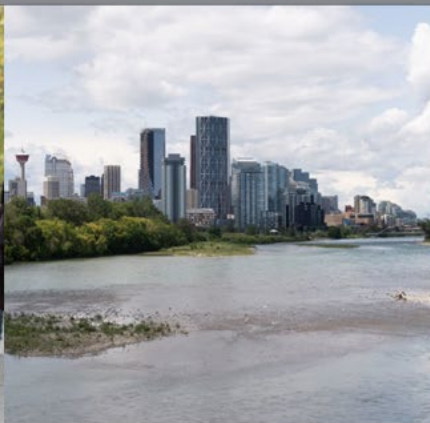
Odours in S.E. Calgary

Public Information Session – October 2023

- Land Acknowledgement
- Introductions
- Meeting norms/format
- Presentation:
 - S.E. Odours Investigation Review
- Questions



Land Acknowledgement



Calgary



Introductions

Meeting format & norms

MS Teams Overview

Presentation: SE Odour Investigation Review

Please use the chat to pose questions at any time (Please start your question with a '?' Sign, it helps us sort through them.)

Questions: If you have a question or comment, please add it to the chat. We will attempt to answer all questions in the time available and will post both questions and answers on www.calgary.ca/Odours.

More questions? (email: engage@calgary.ca)

Please note '**S.E. Odours Project**' in the subject line.

Tone: Keep a positive tone. Discuss ideas on addressing issues.

Scope: Stay on topic. Other topics can be addressed outside the meeting.
(engage@calgary.ca)

Listen & Respect: Every voice is an important voice. Everyone participates, no one dominates. [Further info - Respect in Our Workplace \(calgary.ca\)](#)

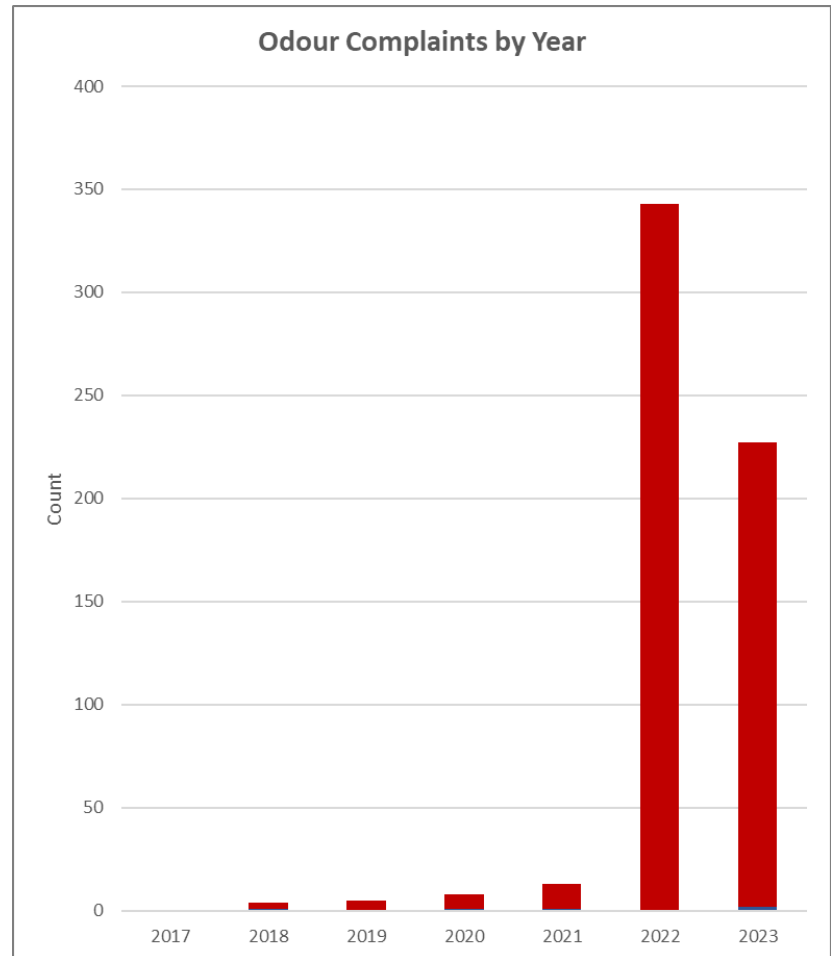
SE Odour Investigation Review

Odours in Calgary

- Odour is the sensation that is caused by breathing in odorous air compounds. Odours may be the result of industrial, municipal, agricultural, or construction activities.
- How odour is experienced, including strength and whether it is pleasant or unpleasant, is very personal and can vary significantly person-to-person.
- Odour can be affected by weather conditions like wind, precipitation, temperature, and temperature inversions.
- Odours are experienced across Calgary.
 - The City received 660 odour related service requests in 2022 – half of these were from S.E. Calgary.

S.E. Odour Complaints

- July 2017 – June 2022
(5 years):
37 odour complaints
- July - December 2022
(6 months):
366 odour complaints
- City engaged Jacobs Engineering for independent study in August 2022



Task 1 – Preliminary Analysis

Data Review:

- 311 Odour Complaints
- Wind Direction
- Other Weather Conditions
- Time of Day
- Day of Week
- Onsite Activity

Site Review:

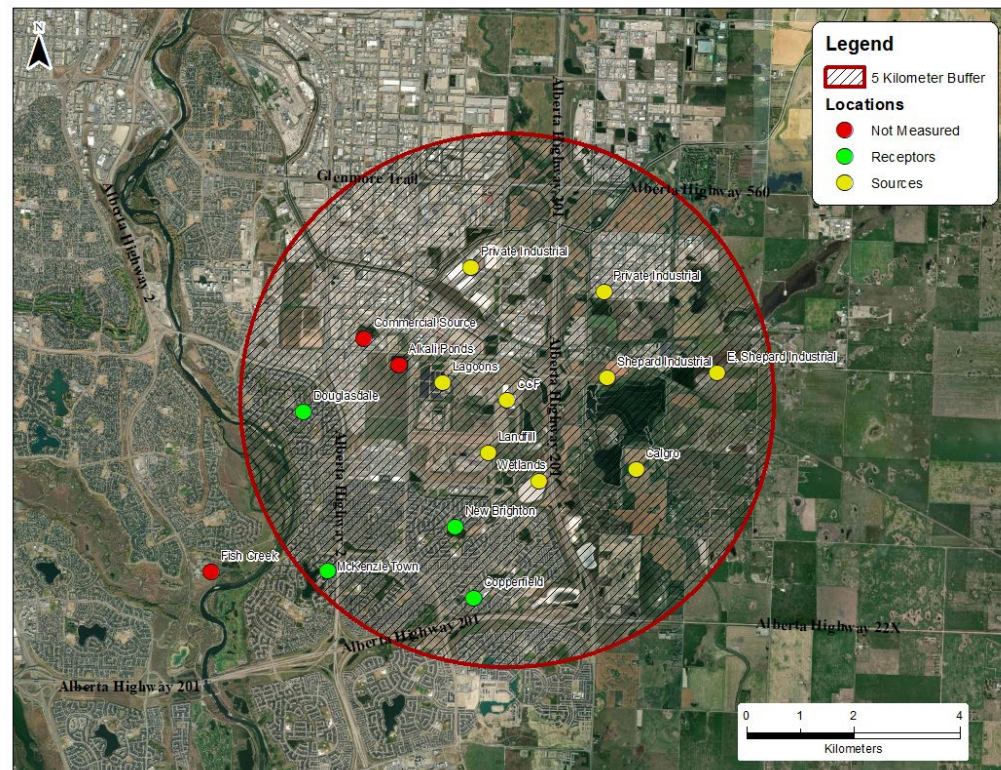
- Jacobs personnel onsite observations
- Initial air sampling
- Field odour measurements

Task 1 – Outcome

Identified possible odour sources for investigation:

- Wetlands / **stormwater ponds***
- **Shepard biosolids lagoons***
- **Shepard landfill***
- **Calgary Composting Facility***
- **Sewer system***
- Agricultural operations
- Industrial operations

* *City of Calgary owned and/or operated*

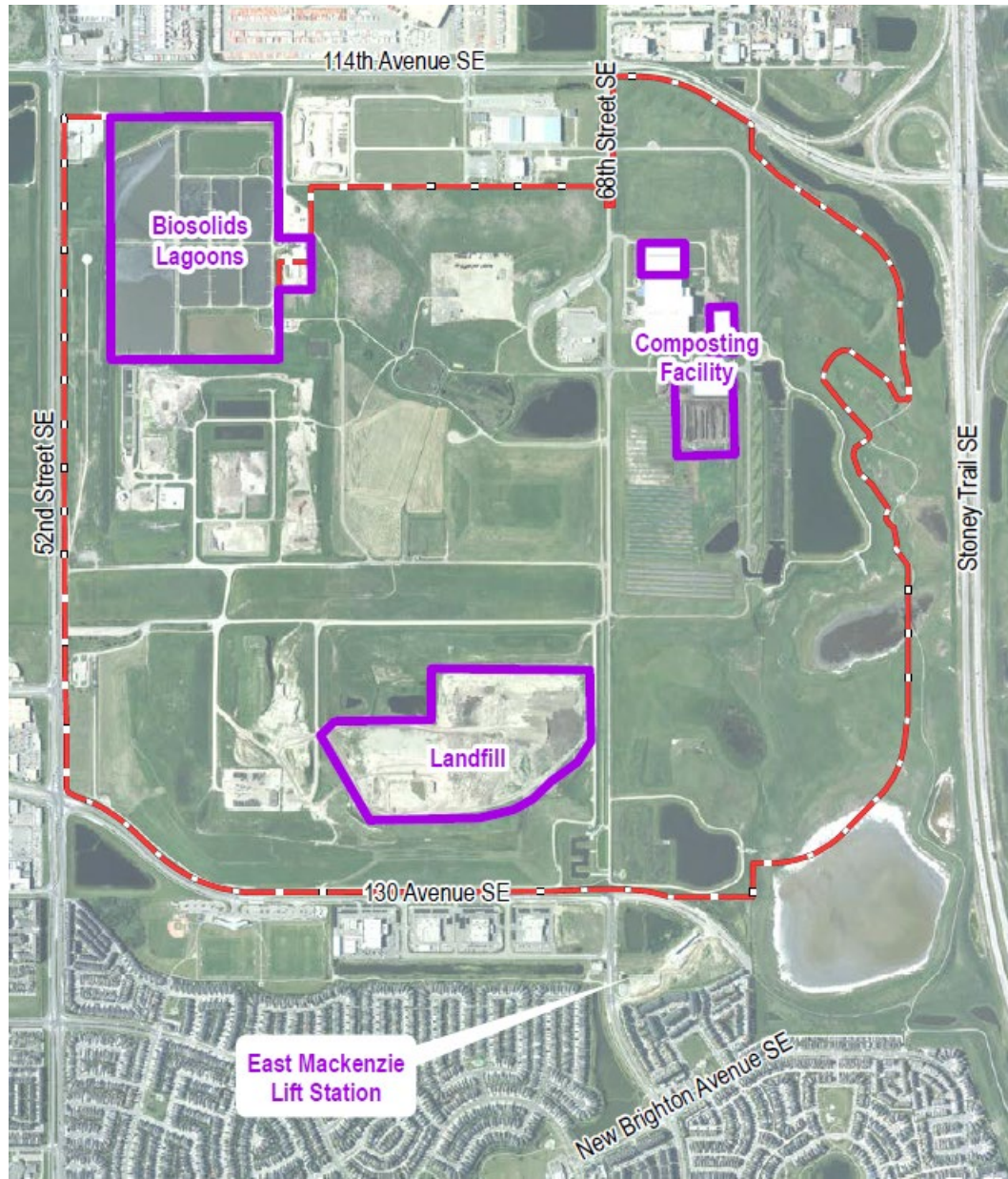


Task 2 – Air Sampling

1. Short-list of possible sources
 - Shepard biosolids lagoons
 - Calgary Composting Facility
 - Shepard landfill
 - East McKenzie sanitary sewer lift station
 - Private industrial (fingerprinting only)
2. Odour ‘Fingerprinting’
 - Sources
 - In community
3. Odour Intensity
 - Sources only



City Infrastructure in S.E. Calgary



Task 2 – Outcomes

1. Odour ‘Fingerprinting’ (chemical speciation) did not identify one or a few source(s), as there was no unique matching chemical compound pattern between source(s) and neighbourhood samples.
 - Sampling results do not show any air quality health concerns.
 - Data gathered will be used in continuing monitoring work.
2. Odour Intensity was measured and used in Task 3.

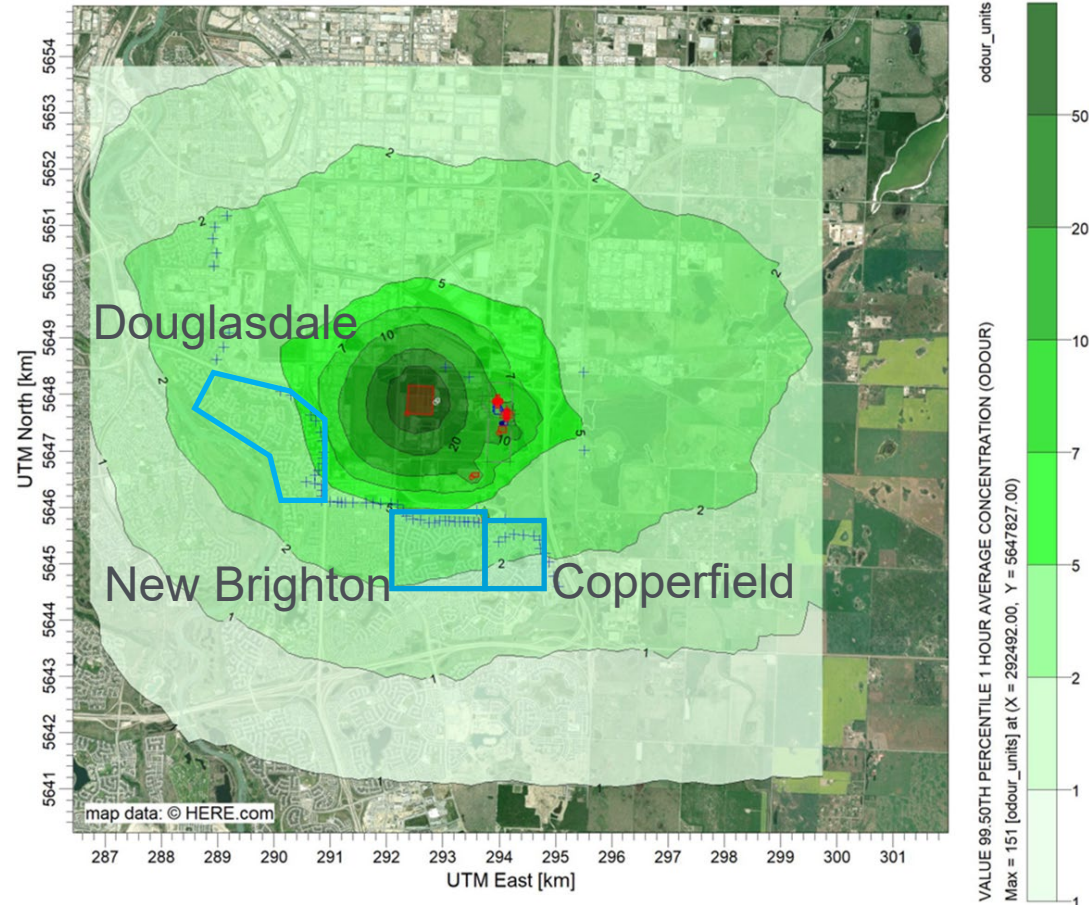
Task 3 – Odour Dispersion Modelling

Measured odour intensities (Task 2) and historic weather data were used as input for a computer model of how the odour will disperse, and how strong it will be as it moves away from its source.



Task 3 – Outcomes

- Biosolids lagoons largest modelled source, followed by Composting Facility, and then landfill and lift station.
- Odour modelling shows generally low odour even at worst-case.
- The modelling **does not** reflect the experience of S.E. Calgarians.



Task 4 – Odour Mitigation Recommendations

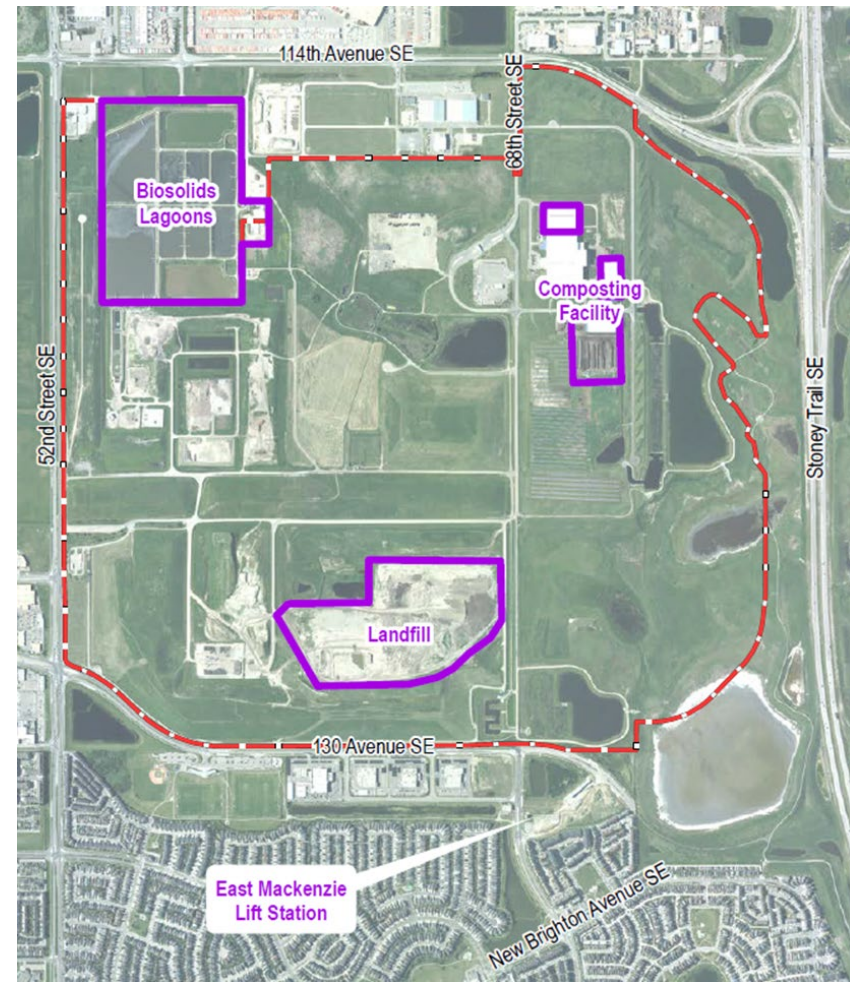
- Site review of various City operations by Jacobs's subject matter experts
- Interviews of operational staff
- From above, Jacobs developed a list of recommendations for all City owned/operated infrastructure which were then evaluated for effectiveness, other impacts/consequences, and cost.

The recommendations are focused on City infrastructure as this is where we have the greatest control and influence

Task 4 – Odour Mitigation Recommendations

General (all operations):

- Establish a process to regularly communicate with residents
- Install a series of active real time air monitoring sensors



Task 4 – Odour Mitigation Recommendations

Biosolids Lagoons:

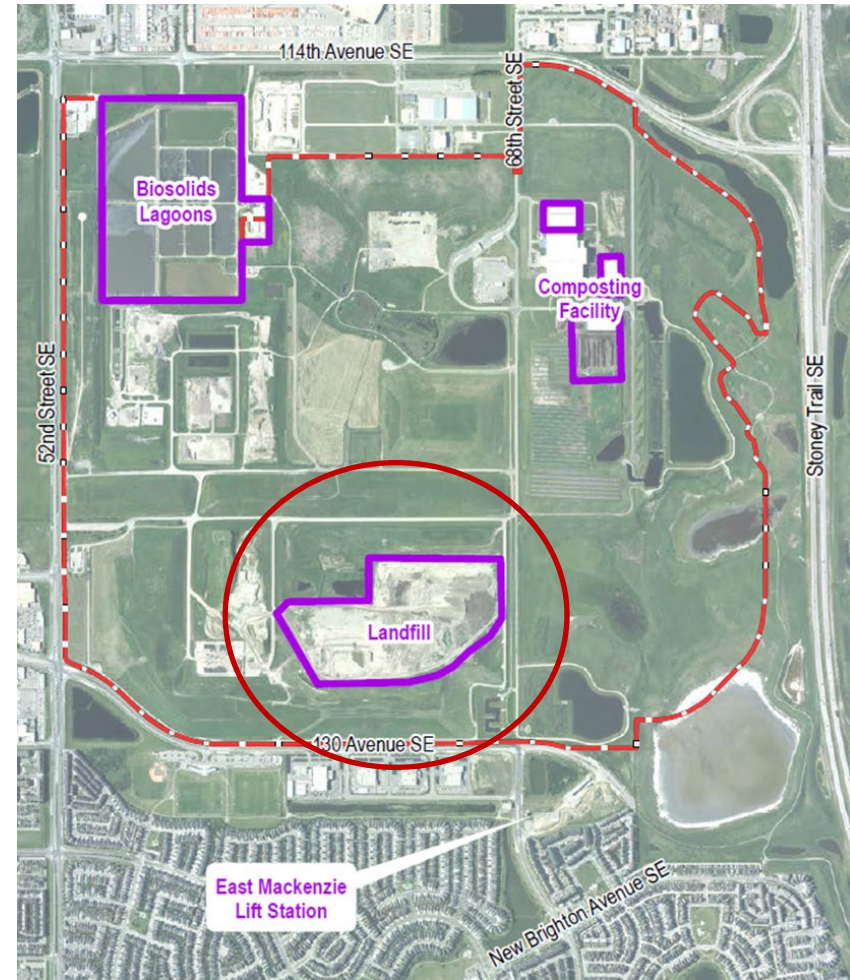
- Upgrade and automate misting system
- Surround lagoons with trees
- Increase undisturbed biosolids stockpile time



Task 4 – Odour Mitigation Recommendations

Landfill:

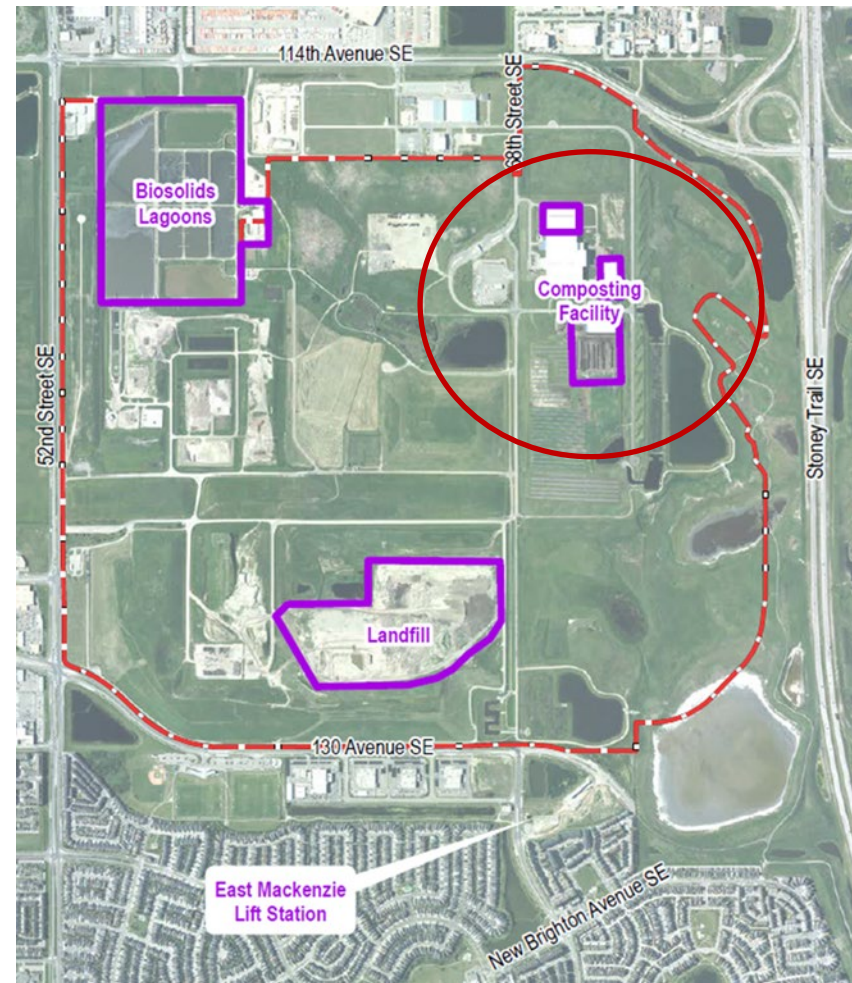
- Review types of waste accepted



Task 4 – Odour Mitigation Recommendations

Composting Facility:

- Develop a more robust biofilter performance monitoring program
- Review process for opportunities to optimize conditions
- Reduce amount of material stored onsite



Summary

- No single odour source was clearly identified as being the highest contributor to odour in the S.E. It appears that multiple sources are contributing, either at the same or different times.
- The City is working to mitigate odours from multiple potential sources starting with its own infrastructure to lessen impacts on S.E. residents.
- More monitoring will be required to identify any additional sources that may be seasonal or intermittent.

What has The City done?

What has The City done?

- Streamlined 311 process for submitting odour service requests.
- Created and updated Calgary.ca/odours, and public information sessions.
- Modified biosolids stockpiling procedure.
- Complete replacement of Composting Facility biofilter material.
- Reduction of commercial waste received at Shepard Landfill.
- S.E. Odour Investigation by Jacobs Engineering.

**What is The City doing
right now?**

What is The City doing right now?

Priority recommendations

- Project underway to design and install series of real-time, active air monitoring sensors.
- Project underway to upgrade lagoon misting system.
- Seeking opportunities to reduce finished compost stored onsite.
- Composting Facility processing capacity expansion is upcoming.

Other recommendations are being reviewed to determine feasibility, timing and resources required for implementation.

Calgary



Questions?