

Draft EA Findings Summary

by Technical Discipline

The South Landfill Phase 2 Draft EA Conclusions

The following table summarizes predicted net effects from each technical discipline.

Field of Study / Significance of Effects	Key Findings / Net Effects
Cultural Heritage No significant Effects	▪ Located within an existing industrial land use (current quarry operations), no historic sites affected ▪ No Indigenous resources / artifacts recovered requiring further study
Traffic No significant Effects	▪ Same haul route as Phase 1 / use of Taylor Road entrance ▪ Existing road network has sufficient capacity ▪ No road network safety issues identified
Land Use No significant Effects	▪ Amendments to local and regional planning will be required ▪ Approvals required from local regulatory agencies
Agricultural No significant Effects	▪ Increase in ~15 ha of agricultural lands (compared to quarry end-use) ▪ Slight decrease in soil classification (based on slope / grade) ▪ Improved soil suitability due to lack of cold air sink (quarry depression)
Groundwater No significant Effects	▪ Landfill liner is fully protective of the environment ▪ Inward groundwater gradient provides enhanced contingency measures
Surface Water No significant Effects	▪ Stormwater management ponds will meet quality / quantity control requirements ▪ Stormwater management ponds will mitigate flooding and erosion risks
Ecology Aquatic No significant Effects	▪ Stormwater management ponds will be designed to control quality / quantity ▪ Standard mitigation measures for facility construction and operation to minimize effects on habitat or culturally important species
Ecology Terrestrial No significant Effects	▪ Small area of vegetation (~ 10 ha) to be disturbed. Disturbances are temporary (will be re-instated after construction / operation) ▪ Some potential habitat (e.g. bat) may be disturbed but can be compensated with new / enhanced habitat and connectivity in areas directly adjacent (eastern perimeter of site / 10 Mile Creek)

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Air Quality - Noise & Vibration No significant Effects	▪ Landfill activities / operations will meet provincial noise criteria (am & pm) ▪ Exception is use of bird control devices; mitigation is required which will restrict use in certain areas / elevations (protocols currently exist for Phase 1)
Air Quality - Particulate No significant Effects	<u>Particulate / Dust</u> ▪ Low, localized, infrequent dust predicted west and north of the Campus ▪ Frequency is approximately 3 days/yr; only during peak campus activities (combined landfill & quarry operations as the quarry nears its operational life, 2030-2034) <u>PM2.5</u> ▪ Slightly exceeds provincial criteria at all receptors ▪ Dominate source is background (existing air quality not from Walker operations) - PM2.5 is a tailpipe emission regionally ▪ Walker Campus is only 5% and Phase 2 is only 2% of the provincial criteria
Air Quality - LFG No significant Effects	<u>Benzene</u> ▪ Exceeds annual criteria ▪ Dominant source is background - (Phase 2 only adds 0.2% total) ▪ Single anomalous data point (e.g. diesel truck directly upwind of monitor) - consultation with MECP underway
Air Quality - Odour No significant Effects	▪ 3 odour units - minor exceedances predicted slightly more than 0.5% of the time (44 hrs/yr) within ~750 m directly east and west of the Campus ▪ 5 odour units - minor exceedances predicted at six receptors near the campus boundaries but at frequencies below 0.5% of the time ▪ 3-5 odour units is characterized as the nuisance threshold
Air Quality - Litter No significant Effects	▪ Some occasional litter predicted within 500 m of fill area but managed through Best Management Plans & Practices
Visual No significant effects	▪ Landfill will be visible, at certain times, from select viewpoints ▪ Visual impact can be minimized via permanent / temporary screening measures like berms, increased vegetation, operational considerations
Economic No significant negative effects Significant positive effects	▪ Predicted effects on local businesses are low to none ▪ No effects predicted on property values ▪ Significant positive effect on local economy; public sector revenues, local / affordable waste disposal service to local economy, job, business and economic opportunities
Social No significant effects	▪ Nuisances with potential to affect use / enjoyment of properties predicted within 500 m of the fill area (noise, litter, odour, dust, visual) ▪ Compensation recommended
Greenhouse Gas * Note - Greenhouse Gas effects are required to be reported in the EA (per the Terms of Reference) however, there are no provincial or federal performance criteria / regulatory limits. Therefore, a level of significance of this effect is not assigned.	▪ Net 1.9 - 3.0 M tonnes CO₂e of emissions generated over the life of the project, including after closure. (45 yrs) ▪ Utilization of landfill gas is considered in the study