### Project Title:
Electrocatalytic degradation of refractory organics in active landfill leachate to enhance the sequencing batch reactor (SBR) denitrification process

### Principal Investigator:
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### Total Approved Grant:
$497,000

### Duration:
1/11/2021 to 31/10/2024

### Project Status/Remarks:
On-going

### Project Scope:
This project aims to design a flow electrochemical reactor to fragment the refractory organic into smaller organics that can be utilised by the microbes during the SBR anoxic denitrification treatment. This strategy can solve multiple issues –

(a). Reduce the amount of refractory organics going into the environment;

(b). Improve the bCOD: N ratio for the SBR to ensure an efficient denitrification cycle;

(c). Reduce or omit the need to add sugar during the SBR treatment; and

(d). Eliminate the nitrogen quota occupancy incurred from the refractory organics, thereby making it easier to comply with the discharge licence; and

(e). Reduce any metal ions entering the environment.

### Summary of the Findings/Outcomes:
To be available upon completion of the project