

Attachment 6: Proposal Monitoring

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Proposal Monitoring

Plan Overview

The following provides an overview of the preliminary Proposal Monitoring Plan. The specific details of the Proposal Monitoring Plan will be developed as part of the development of the project in which components of the facility are identified as described in Task 6 of the Work Plan. The following provides a preliminary overview of the general approach that could be taken to develop the Proposal Monitoring Plan for this project.

The specific goals of the project are to demonstrate the following.

- Reduce Greenhouse Gas Emissions
- Water Savings
- Energy Savings

Reduce Greenhouse Gas Emissions

The gas production could be monitored by metering the gas outlet of the co-digester. Methane content can be measured by using gas chromatography. Enhanced gas production in the presence of organic waste is determined by establishing baseline gas production in a control (sludge-only) operation and comparing it with gas production in the presence of organic wastes. Solids reduction is determined by taking a known volume of digested sludge from control and organic waste added digesters, measuring the percent solids in the digested sludge, then dewatering the solids by the protocol described in the methods section and determining the percent solids in the dewatered cake and then determining the net mass of dewatered cake by mass balancing method.

Reduction in greenhouse emission will be determined by the amount of gas used for beneficial use, the amount of sludge, and organic waste diverted from the landfill. The amount of gas can be compared to common industry emission rates to determine the greenhouse gas reductions.

Water Savings

Water Savings will be measured directly based on the quantity of brine delivered to the Sycamore landfill site and using a direct 1:1 relationship of water to brine ratio.

Energy Savings

Energy savings will be measured by the amount of electricity used by the Ray Stoyer Water Reclamation Facility pre-project conditions and compared with the post-project electricity used from the grid.