

Solid Waste Greenhouse Gas Reporting

VARIOUS LANDFILLS | MULTIPLE SOLID WASTE CLIENTS



Sanborn Head has worked with several solid waste clients to evaluate on-site sources of greenhouse gas (GHG) at multiple sites in the Northeast to prepare Federal and state-mandated greenhouse gas reporting.

Preparation of the reports required a thorough examination of on-site equipment and operations in order to develop emissions estimates for carbon dioxide equivalents for various emissions sources and fuel types using the methods required by the EPA.

Key Components:

- Greenhouse Gas Reporting
- CO₂e Reduction Strategies
- Methane Fugitives Emissions Reduction
- Federal and State Reporting Requirements

Since 2010, EPA's Greenhouse Gas Reporting Program (GHGRP) tracks facility-level emissions from the largest sources of greenhouse gas (GHG) emissions in the United States and data is reported using the online e-GGRT data reporting system. Municipal Solid Waste (MSW) landfills that accepted MSW on or after January 1, 1980 and generate methane in amounts equivalent to 25,000 metric tons of carbon dioxide equivalents (CO₂e) or more per year are required to report on greenhouse gas emissions. This category includes emissions from the landfill, landfill gas collection systems, and destruction devices for landfill gases (including boilers, engines, and flares). Sanborn Head has calculated the emissions from these sources and prepared the GHG reports using the e-GGRT system.

Sanborn Head also prepared greenhouse gas emissions reports for landfills in Massachusetts to meet state reporting requirements. The Massachusetts [Global Warming Solutions Act \(GWSA\)](#), which became law in 2008, required the Department of Environmental Protection (MassDEP) to promulgate mandatory greenhouse gas (GHG) reporting regulations. The emissions were reported using the prior Climate Registry Information System and now the new GHG filing platform, eDEP Online Filing. Responsibilities included applicability screening, quantification of GHGs using The Climate Registry's General Reporting Protocol, and calculating site-specific values for the heat content and carbon content of landfill gas.

Sanborn Head also prepared a study of greenhouse gas (GHG) emissions as reported by Casella Waste Systems-operated facilities across their Northeast Region to the U.S. Federal government to compare GHG emissions from landfills and solid waste combustors in the Northeastern States to help State agencies plan solid waste management hierarchies and GHG reductions. The results of the study have

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led to evaluating GHG emissions on a quarterly basis and quantification and reduction of fugitive methane emissions from the landfills.