

GRI EMISSIONS DISCLOSURE & ASSURANCE



Waste Connections' emissions disclosure was developed using the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines. Waste Connections' GHG inventories were prepared by a third party, independent environmental services firm, with the conclusions audited and verified by a separate third party. The data was prepared in a manner consistent with The Climate Registry (TCR) General Reporting Protocol (GRP) Version 3.0, dated May 2019, and its associated updates and clarifications.

Full text of the emissions assurance statement is available on our [website](#).

G4-EN15: Direct (Scope 1) Greenhouse Gas (GHG) Emissions

MT CO ₂ e		
2021	2022	2023
5,600,178	4,812,957	5,237,965

G4-EN16: Energy Indirect (Scope 2) GHG Emissions

MT CO ₂ e		
2021	2022	2023
50,694	49,805	56,118

G4-EN17: Other Indirect (Scope 3) GHG Emissions

Emission Source	MT CO ₂ e		
	2021	2022	2023
Purchased goods and services	22,341	23,405	21,365
Capital goods	300,439	326,464	260,088
Waste generated in operations	77,143	76,217	86,729
Upstream transportation and distribution	555,497	555,459	527,700
Business travel (air and vehicle)	63,522	63,637	80,838
Use of sold products	33,653	35,368	39,120
Total	1,052,595	1,080,550	1,015,840

G4-EN18: GHG Emission Intensity

GHG Emission Intensity	Unit	2021	2022	2023
Gross revenue	\$US Millions	\$6,151	\$7,212	\$8,022
Scope 1 emissions	MT CO ₂ e	5,600,178	4,812,957	5,237,965
	MT CO ₂ e/\$M revenue	910	667	653
Scope 2 emissions MT CO ₂ e	MT CO ₂ e	50,694	49,805	56,118
	MT CO ₂ e/\$M revenue	8	7	7
Scope 1 & 2 emissions	MT CO ₂ e	5,650,872	4,862,762	5,294,083
	MT CO ₂ e/\$M revenue	919	674	660

The affirmation of carbon sequestration in our landfills is well documented in scientific literature. Due to anaerobic conditions that exist within landfills, lignins and hemicellulosic materials remain undecomposed.

	2022	2023
Municipal solid waste and construction & demolition debris (tons)	36,705,565	38,898,786
MTCO ₂ e sequestered	12,688,647	14,007,352

G4-EN19: Reduction of GHG emissions

Waste Connections has undertaken several initiatives to reduce GHG emissions.

Beneficial use of biogas: The Company collected landfill gas for beneficial use at 26 landfill gas-to-energy facilities in 2022. The estimate of avoided emissions assumed that natural gas was the fuel replaced by the use of landfill gas. The avoided emissions were calculated using default methodologies from TCR and included CO₂, CH₄ and N₂O emissions.

Waste diversion: Waste Connections diverts over 50% of collected waste volumes in certain markets — in some cases over 70%. The estimated avoided GHG emissions

from recycling were calculated using the U.S. EPA Waste Reduction Model (WARM).

Alternative fuel fleet: Over the past several years, Waste Connections has deployed vehicles using alternative fuels such as compressed natural gas (CNG) and biodiesel as a means of reducing its GHG footprint. Waste Connections currently deploys approximately 1,100 CNG vehicles. The estimated annual reduction in GHG emissions from CNG vehicles is calculated using an equivalent diesel vehicle as a baseline.

Reduction of GHG emissions (MT CO ₂ e)	2022	2023
Annual avoided GHG emissions due to beneficial use of biogas	758,910	788,221
Annual avoided GHG emissions due to recycling	6,894,223	6,772,866
Annual avoided GHG emissions due to vehicles using alternative fuels	20,478	22,370

G4-EN22: Water discharge by quality and destination

Our E&P wastewater treatment technologies allow us to process and dispose of 100% of drilling-related waters without discharging to surface waters. The majority of waste fluids are injected into brine formations via deep wells.

Water discharge (gallons)	2022	2023
Leachate collected	668,595,320	820,636,778
Leachate sent to third parties for treatment	405,237,966	499,663,843
E&P produced water for on-site treatment	459,952,822	401,861,022
E&P produced water sent to third parties for treatment	29,874,894	34,212,520