



REPUBLIC
SERVICES

We'll handle it from here.®



Our Blue Planet®
2019 SASB Report

We work for Earth.®

2019 Republic Services SASB Report

This report was prepared following the SASB Waste Management Sustainability Accounting Standard, Version 2018-10, using the reporting entity described in the Republic Services 2019 10-K. All data is as of December 31, 2019 for calendar year 2019.

Disclosure Regarding Forward-Looking Statements

This report contains certain forward-looking information about us that is intended to be covered by the safe harbor for “forward-looking statements” provided by the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that are not historical facts. Words such as “guidance,” “expect,” “will,” “may,” “anticipate,” “plan,” “estimate,” “project,” “intend,” “should,” “can,” “likely,” “could,” “outlook” and similar expressions are intended to identify forward-looking statements. These statements include information about our sustainability targets, goals and programs in addition to our plans, strategies, expectations of future financial performance and prospects. Forward-looking statements are not guarantees of performance. You should not place undue reliance on any forward-looking statement. These statements are based upon the current beliefs and expectations of our management and are subject to significant risk and uncertainties that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot assure you that the expectations will prove to be correct. The inclusion of information in this report should not be construed as a characterization regarding the materiality or financial impact of that information. More information on factors that could cause actual results or events to differ materially from those anticipated is included from time to time in our reports filed with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2019, particularly under Part I, Item 1A - Risk Factors, and in our Quarterly Reports on Form 10-Q. Additionally, new risk factors emerge from time to time and it is not possible for us to predict all such risk factors, or to assess the impact such risk factors might have on our business or sustainability programs and goals. We undertake no obligation to update publicly any forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.

2019 Republic Activity Metrics

| SASB Code | Activity Metric | Units | 2017 Results | 2018 Results | 2019 Results |
|---|----------------------------------|--------|--------------|--------------|--------------|
| IF-WM-000.A | Number of customers by category: | | | | |
| | Municipal | Number | N/A | N/A | N/A |
| | Commercial | Number | N/A | N/A | N/A |
| | Industrial | Number | N/A | N/A | N/A |
| | Residential | Number | N/A | N/A | N/A |
| IF-WM-000.A Republic does not archive historical customer counts by these categories. | | | | | |

| | | | | | |
|---|---|--|----------|----------|----------|
| IF-WM-000.B | Vehicle Size | Includes collection fleet, service vehicles, and equipment | 24,837 | 25,094 | 25,529 |
| | | Collection fleet | 15,900 | 16,000 | 16,000 |
| IF-WM-000.C | Number of: | | | | |
| | Landfills | Active landfills | 195 | 190 | 189 |
| | | Closed landfills | 124 | 129 | 130 |
| | | Active hazardous landfills | 0 | 0 | 0 |
| | Transfer Stations | Number | 204 | 207 | 212 |
| | Recycling Centers | Number | 90 | 91 | 79 |
| | Composting Centers | Number | 9 | 10 | 10 |
| | Incinerators | Number | 0 | 0 | 0 |
| | All other facilities | Renewable energy and landfill gas projects | 68 | 75 | 75 |
| | | CNG fueling stations | 37 | 37 | 39 |
| | | TRD facilities | 7 | 7 | 7 |
| | | SWD wells | 11 | 11 | 15 |
| | Deep injection wells | N/A | N/A | 4 | |
| IF-WM-000.C Recycling Centers: Republic expanded and/or rationalized operations in 2019 to improve efficiency and throughput, including closing some less efficient and less technically advanced facilities. In some cases, processing was transferred to other nearby regional recycling centers. | | | | | |
| IF-WM-000.D | Amount of material managed by our business: | | | | |
| | Total tons managed | Million tons | 113 | 115 | 114 |
| | IF-WM-000.D We believe the amount of material we manage is an appropriate metric when calculating and evaluating intensity comparisons. Data includes MSW, Recycling, and E&P waste tons managed. | | | | |
| N/A | Revenue | Billion USD | \$10,042 | \$10,041 | \$10,299 |

2019 Republic Sustainability Accounting Metrics

| SASB Code | Sustainability Accounting Metric | Units | 2017 Results | 2018 Results | 2019 Results |
|---------------------------------------|--|-------------------------------|--------------|--------------|--------------|
| Greenhouse Gas (GHG) Emissions | | | | | |
| IF-WM-110a.1 | (1) Gross global Scope 1 emissions | Metric tons CO ₂ e | 13,486,262 | 13,199,147 | 13,930,867 |
| | (2) Percentage covered under emissions-limiting regulations | Percent | 83 % | 83 % | 84 % |
| | (3) Percentage covered under emissions-reporting regulations | Percent | 85 % | 85 % | 86 % |
| | <p>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</p> <p>(1) Scope 1 emissions include emissions from landfills and fleet that are owned, leased, or operated by Republic. We don't believe the landfill portion of the Scope 1 emissions is reflective of our performance. Landfill emissions are calculated using U.S. 40 CFR Part 98 Subpart HH, a method developed by the EPA and industry to characterize the contribution of landfills in relationship to the overall greenhouse gas footprint in the U.S. This method remains the current method for reporting landfill emissions to the EPA. However, these calculations are not as well suited to tracking progress or reductions at individual landfills. This is due to several simplifying assumptions to compensate for the lack of a current method available to accurately and continuously <u>measure</u> fugitive landfill emissions. As noted in our sustainability report, we will continue to use the EPA calculations to reflect our landfill emissions until we develop a method for more accurate and continuous measurement, which we have committed to investigate in support of our science-based GHG emissions target. Sequestered carbon is not subtracted from the landfill emissions total, per GHG Protocol guidance. For more information on gasses covered, calculation methodology/protocols, etc. see the 2019 GRI Report, disclosure 305-1, which can be found at www.republicservices.com/sustainability.</p> <p>Fleet emissions are based on emissions factors for the various types of fuels that are used. See Section IF-WM-110b for more details on fuel types.</p> <p>(2) This percentage reflects the emissions that are covered by U.S. EPA's Standards of Performance for Municipal Solid Waste Landfills (US 40 CFR Part 60, Subparts WWW and XXX) and Emissions Guidelines and Compliance Times for Municipal Solid Waste Landfills (U.S. 40 CFR Part 60, Subparts Cc and Cf), as well as the State of California's Landfill Methane Control Measure (17 CCR §§ 95460 – 95476).</p> <p>(3) Only certain landfill types and those that emit >25k MTCO₂e/year are covered under emissions reporting regulations, according to the U.S. EPA Greenhouse Gas Reporting Program. Percentage also does not include fleet emissions, as they are not regulated under emissions-reporting regulations.</p> <p>CO₂e = carbon dioxide equivalents (a standard unit for measuring carbon footprints)</p> | | | | |

| | | | | | |
|--------------|--|---------|------------|------------|------------|
| IF-WM-110a.2 | (1) Total landfill gas recovered | MMBTU | 78,942,711 | 80,148,584 | 82,651,373 |
| | (2) Percentage flared | Percent | 55 % | 58 % | 57 % |
| | (3) Percentage used for energy | Percent | 45 % | 42 % | 43 % |
| | <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> | | | | |
| | <p>(1) This total represents the amount of landfill gas that was collected in both open and closed landfills, via gas collection systems and is typically described as “landfill gas recovered.” Landfill gas generated (as requested by SASB guidelines) is a calculated amount using U.S. 40 CFR Part 98 Subpart HH and is subject to error, therefore recovered landfill gas is used.</p> <p>In the 2018 Sustainability Report, Republic unveiled new sustainability goals designed to address critical global macro trends and our most relevant sustainability risks and opportunities, including the beneficial reuse of landfill biogas. Our goal is to increase biogas sent to beneficial reuse by 50% by 2030 (from a 2017 baseline), as we endeavor to make our landfills regenerative. For more information about our beneficial biogas reuse goal, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 301, which can be found at www.republicservices.com/sustainability.</p> <p>MMBTUs = million British Thermal Units (a measure of the energy content in fuel)</p> | | | | |
| IF-WM-110a.3 | <p><i>Description of long-term and short-term strategy or plan to manage Scope 1 and life-cycle emissions, emission-reduction targets, and an analysis of performance against those targets:</i></p> <p>In the 2018 Sustainability Report, Republic unveiled new sustainability goals designed to address critical global macro trends and our most relevant sustainability risks and opportunities, including greenhouse gas (GHG) emissions that contribute to climate change. Given our position, regulatory and market developments related to climate change present us with the potential for strategic business opportunities. Offsetting operational GHG emissions is not enough. We’re taking a bold position to leverage innovation and lead the industry in combating climate change. Landfill methane emissions, vehicle and equipment emissions, and building electricity all contribute to climate change. That’s why we’ve adopted an aggressive target for reducing our operational GHG emissions, aligned with the Science Based Targets initiative (SBTi). Our goal is to reduce absolute Scope 1 and 2 greenhouse gas emissions 35% by 2030, from a 2017 baseline year. This goal supports the United Nations “Climate Action” Sustainable Development Goal, 13.2 – reduce greenhouse gas emissions. We’ll accomplish this goal through:</p> <ol style="list-style-type: none"> 1. Landfill innovation 2. Reducing fleet emissions 3. Reducing emissions when we build <p>For more information about our GHG emissions goal, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 305, which can be found at www.republicservices.com/sustainability.</p> | | | | |

| Fleet Fuel Management | | | | | |
|-----------------------|---|------------------|------------------------------------|------------|------------|
| IF-WM-110b.1 | (1) Fleet fuel consumed | GJ | 19,544,955 | 19,292,633 | 18,746,185 |
| | (2) Percentage natural gas | Percent | 19 % | 20 % | 21 % |
| | (3) Percentage renewable | Percent | 7 % | 15 % | 15 % |
| | <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> | | | | |
| | <p>(1) Number includes fuel consumed by collection and service vehicles only. (2) Number includes renewable natural gas. (3) Renewable as defined consistent with the U.S. Renewable Fuel Standard (U.S. 40 CFR § 80.1401) and includes renewable natural gas, biodiesel, etc.</p> <p>GJ = gigajoule (a measure of energy that enables comparisons amongst different types of fuel)</p> | | | | |
| IF-WM-110b.2 | Percentage of alternative fuel vehicles in fleet | Percent | 19 % | 20 % | 20 % |
| | <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> | | | | |
| | <p>Number represents CNG vehicles as a percentage of collection vehicles only.</p> <p>For more information about our energy/fuel management, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 302, which can be found at www/republicservices.com/sustainability.</p> | | | | |
| Air Quality | | | | | |
| IF-WM-120a.1 | <i>Air emissions of the following pollutants:</i> | | <i>Air Emissions (metric tons)</i> | | |
| | (1) NOx (excluding N ₂ O) | Metric tons | 1,304 | 1,400 | 1,438 |
| | (2) SOx | Metric tons | 314 | 339 | 347 |
| | (3) Volatile organic compounds (VOCs) | Metric tons | 31 | 33 | 34 |
| IF-WM-120a.2 | Number of facilities in or near areas of dense population | Open landfills | N/A | 89 | 89 |
| | | Closed landfills | N/A | 49 | 49 |
| IF-WM-120a.3 | Number of incidents of non-compliance associated with air emissions | Number | N/A | N/A | N/A |
| RSG-AQ-01 | SEC disclosable environmental enforcement proceedings relating to air and odor | Number | 0 | 2 | 1 |
| | <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> | | | | |

| | |
|--|---|
| | <p>IF-WM-120a.1 Based on landfill emissions only and follows SASB reporting guidelines. While there may be multiple methods for calculating landfill air emissions, Republic believes the most representative method is to use measured landfill gas flow to flares, engineering calculations and mass balance calculations. For additional details on scope and method of calculations, please see the 2019 GRI Report, disclosure 305-7, which can be found at www.republicservices.com/sustainability.</p> <p>IF-WM-120a.2 Total landfill count within 5 km of urban populations greater than 50,000 people based on 2010 US Census Bureau data. Site locations are based on landfill mailing address. The 2018 counts were updated using an enhanced location service.</p> <p>IF-WM-120a.3 SASB reporting guidelines are unclear for this metric.</p> <p>RSG-AQ-01 Please refer to Item 103 of SEC Regulation S-K. We had one new proceeding relating to air/odor in 2019. Two other proceedings disclosed in our quarterly filings for 2019 were a continuation from prior years.</p> <p>For more information about our air quality management, our progress and related initiatives, please refer to our 2019 GRI Report, Standards 305 and 307, which can be found at www.republicservices.com/sustainability.</p> |
|--|---|

Management of Leachate and Hazardous Waste

| | | | | | |
|--------------|--|-----------------|-------|-------|-------|
| IF-WM-150a.1 | (1) Total Toxic Release Inventory (TRI) releases | Number | N/A | N/A | N/A |
| | (2) Percentage released to water | Percent | N/A | N/A | N/A |
| IF-WM-150a.2 | Number of corrective actions implemented for landfill releases | Number | N/A | N/A | N/A |
| IF-WM-150a.3 | Number of incidents of non-compliance associated with environmental impacts | Number | N/A | N/A | N/A |
| RSG-ML-01 | SEC disclosable environmental enforcement proceedings relating to management of leachate, water, and hazardous waste | Number | 0 | 1 | 1 |
| RSG-ML-02 | Total leachate collected and treated | Billion gallons | 1.745 | 1.817 | 2.043 |

Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):

IF-WM-150a.1 We have replaced the SASB advised metric of Total Toxic Release Inventory (TRI) releases with Total leachate collected and treated (RSG-ML-02) because TRI releases are de minimis for our business.

IF-WM-150a.2 SASB reporting guidelines are unclear for this metric.

IF-WM-150a.3 SASB reporting guidelines are unclear for this metric.

| | | | | | |
|--------------------------------------|--|---------|-------|-------|-------|
| | <p>RSG-ML-01 Please refer to Item 103 of SEC Regulation S-K. We had one new proceeding relating to management of leachate, water and hazardous waste in 2019. The one other proceeding disclosed in our quarterly filings for 2019 was a continuation from prior years. We have added the Total leachate collected and treated metric below (RSG-ML-02) to our SASB report, because we feel that this provides context to the small number of SEC disclosable proceedings in this disclosure relative to the large amount of leachate collected and treated.</p> <p>RSG-ML-02 Total reflects leachate that is treated by either Republic Services or a third party and then returned to the water cycle.</p> <p>For more information about our leachate management, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 306, which can be found at www.republicservices.com/sustainability.</p> | | | | |
| Labor Practices | | | | | |
| IF-WM-310a.1 | Percentage of active workforce covered under collective bargaining agreements | Percent | 24 % | 24 % | 24 % |
| IF-WM-310a.2 | (1) Number of work stoppages | Number | 0 | 0 | 0 |
| | (2) Total days idle | Days | 0 | 0 | 0 |
| | <p><i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods), including reason for the work stoppage, impact on operations and any corrective actions taken:</i></p> <p>IF-WM-310a.1 As of December 31, 2019, approximately 24% of our workforce was represented by various labor unions. See page 100 of our 2019 10-K.</p> <p>IF-WM-310a.2 Republic has not had any labor events that qualify as material work stoppages under the SASB reporting guidelines. In 2019, however, Republic had two strikes involving a total of 50 employees that lasted several weeks, along with a small number of short-term work stoppages in a few other markets that lasted a combined total of less than 20 working days. The previously reported 2018 work stoppages were updated to align with SASB guidelines on material work stoppages: the stoppages previously reported did not approach the material threshold defined under the SASB reporting guidelines.</p> <p>For more information about our employee engagement goal, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 401, which can be found at www.republicservices.com/sustainability.</p> | | | | |
| Workforce Health & Safety | | | | | |
| IF-WM-320a.1 | (1) Total Recordable Incident Rate (TRIR) | Rate | 3.646 | 3.873 | 3.707 |
| | (2) Fatality Rate | Rate | 4.988 | 0 | 4.872 |
| | (3a) Near Miss Frequency Rate (NMFR) for direct employees | Rate | N/A | N/A | N/A |

| | | | | | |
|--|---|---------|-----------|-----------|-----------|
| | (3b) Near Miss Frequency Rate (NMFR) for contract employees | Rate | N/A | N/A | N/A |
| IF-WM-320a.2 | Safety Measurement System BASIC percentiles: | | | | |
| | (1) Unsafe Driving | Percent | See below | See below | See below |
| | (2) Hours-of-Service Compliance | Percent | See below | See below | See below |
| | (3) Driver Fitness | Percent | See below | See below | See below |
| | (4) Controlled Substances/Alcohol | Percent | See below | See below | See below |
| | (5) Vehicle Maintenance | Percent | See below | See below | See below |
| | (6) Hazardous Materials Compliance | Percent | See below | See below | See below |
| IF-WM-320a.3 | Number of road accidents and incidents | Number | 162 | 124 | NR |
| <p><i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i></p> <p>IF-WM-320a.1:</p> <p>(1) TRIR is a company-wide rate, including residential, commercial, and industrial collection, calculated using OSHA reporting guidelines (per 100 employees). All incidents, regardless of whether treated in-house or externally, are recorded.</p> <p>(2) The fatality rate is calculated per 100,000 full-time equivalent employees, consistent with OSHA and Bureau of Labor Statistics (BLS) reporting guidance. The 2018 fatality rate was updated to align with OSHA reportable standards. The actual OSHA reportable fatalities in 2018 was zero (0).</p> <p>IF-WM-320a.1 (3a)/(3b) Republic does not track near miss data.</p> <p>IF-WM-320a.2 The Federal Motor Carrier Safety Administration (FMCSA) calculates BASIC percentiles for the 60+ Department of Transportation numbers under which Republic operates. These scores are available to the public at https://ai.fmcsa.dot.gov/SMS.</p> <p>IF-WM-320a.3 Not reporting: Reliability of data provided by third party for 2019 is questionable and could not be resolved prior to release of this report. Republic is not reporting on this topic in 2019.</p> <p>In the 2018 Sustainability Report, Republic unveiled new sustainability goals designed to address critical global macro trends and our most relevant sustainability risks and opportunities, including safety. Republic Services is taking an ambitious leap forward in safety with a program we call Safety Amplified. Our goals are designed to enhance safety for our employees and the communities we serve. Our safety goal has two dimensions:</p> <ol style="list-style-type: none"> 1. Zero work-related employee fatalities 2. OSHA Total Recordable Incident Rate (TRIR) of 2.0 or less by 2030 <p>For more information about our safety goal, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 403, which can be found at www.republicservices.com/sustainability.</p> | | | | | |

Recycling and Resource Recovery

| | | | | | |
|---|---|----------------------|--------|--------|--------|
| IF-WM-420a.1 | (1) Amount of waste incinerated in owned facilities | Metric tons | 0 | 0 | 0 |
| | (2) Percent of waste incinerated that is hazardous | Percent | 0 % | 0 % | 0 % |
| | (3) Percent of waste incinerated used for energy recovery | Percent | 0 % | 0 % | 0 % |
| | <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> Republic does not own or operate waste incineration facilities. See Item 1 – Business in 2019 10-K (page 2). | | | | |
| IF-WM-420a.2 | (1) Percentage of customers receiving recycling services by service type: | | | | |
| | Residential (municipal + open market) | Percent | 72 % | 71 % | 74 % |
| | Small container | Percent | 24 % | 25 % | 26 % |
| | Large container | Percent | 12 % | 12 % | 25 % |
| | (2) Percent of customers receiving composting services by service type: | | | | |
| | Residential (municipal + open market) | Percent | 25 % | 24 % | 25 % |
| | Small container | Percent | 1 % | 1 % | 2 % |
| Large container | Percent | 1 % | 1 % | 2 % | |
| IF-WM-420a.3 | (1) Amount of material recycled | Million metric tons | 5.4 | 5.4 | 5.4 |
| | (2) Amount of material composted | Thousand metric tons | 453 | 750 | 776 |
| | (3) Amount of material processed as waste to energy | Million metric tons | 43 | 45 | 44.5 |
| IF-WM-420a.4 | (1) Amount of electronic waste collected | Metric tons | 473 | 479 | 548 |
| | (2) Percent of electronic waste recovered through recycling | Percent | ≥ 99 % | ≥ 99 % | ≥ 99 % |
| <i>Discussion/clarifications/assumptions/etc. (including measurement/estimation methods):</i> IF-WM-420a.2 The customer categories shown above are consistent with Republic’s financial reporting for collection services. IF-WM-420a.3 (1) and (2) These totals include material that is processed at Republic owned or operated recycling and composting facilities from both Republic and third-party haulers. These figures do not include material collected by Republic and taken to third-party facilities for processing. (3) This is the amount of MSW that goes to Republic landfills that create renewable energy through gas to energy projects. | | | | | |

| | |
|--|--|
| | <p>In the 2018 Sustainability Report, Republic unveiled new sustainability goals designed to address critical global macro trends and our most relevant sustainability risks and opportunities, including recycling and the circular economy. We believe our innovative business practices and deep understanding of scalable circular economy solutions will help us accomplish our ambitious goal related to Materials Management, which is to increase recovery of key materials by 40% on a combined basis by 2030 (from a 2017 baseline). For more information about our circular economy goal, our progress and related initiatives, please refer to our 2019 GRI Report, Standard 301, which can be found at www.republicservices.com/sustainability.</p> |
|--|--|