2021 Annual Report

Proxy Statement

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

Due to on-going public health concerns related to the COVID-19 pandemic, we will be holding a virtual Annual Meeting. You may access and participate in the virtual Annual Meeting using your control number, including asking questions, examining the list of registered stockholders and voting shares, if you were a stockholder of record as of the close of business on the record date or held shares through a bank, broker, or nominee on that date.

Virtual Meeting Date:

Tuesday, May 10, 2022

Virtual Meeting Time:

11:00 a.m. Central Time

Virtual Meeting Location:

www.virtualshareholdermeeting.com/WM2022

Record Date:

March 15, 2022

Agenda for the Annual Meeting (or any adjournment or postponement thereof):

- To elect the nine nominees named in the attached proxy statement to our Board of Directors;
- To vote on a proposal to ratify the appointment of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2022;
- To vote on a non-binding, advisory proposal to approve our executive compensation;
- To vote on a stockholder proposal regarding a civil rights audit, if properly presented at the Annual Meeting; and
- To conduct other business that is properly raised at the meeting.

IMPORTANT NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIALS:

This Notice of Annual Meeting and Proxy Statement and the Company's Annual Report on Form 10-K for the year ended December 31, 2021 are available on the "Investors" website at www.wm.com.

You may submit your proxy via the Internet by following the instructions provided in the Notice or, if you received printed copies of the proxy materials, on your proxy card.

If you received printed copies of the materials in accordance with the instructions in the Notice, you also have the option to submit your proxy by telephone by calling the toll-free number listed on your proxy card. Telephone voting is available 24 hours per day until 11:59 p.m., Eastern Time, on May 9, 2022.

If you received printed copies of the proxy materials in accordance with the instructions in the Notice and would like to submit your proxy by mail, please mark, sign and date your proxy card and return it promptly in the postage-paid envelope provided.

If your shares of Common Stock are held in street name, you will receive instructions from your broker, bank or nominee that you must follow in order to have your shares of Common Stock voted at the Annual Meeting.

Your vote is important. **We urge all stockholders — whether attending the virtual Annual Meeting or not — to vote and submit their proxies as soon as possible using one of the methods described above.**

Courtney A. Tippy
Corporate Secretary

March 29, 2022

Enroll in Electronic Delivery Today. Help us save paper, time and money! If you are a beneficial owner, visit http://www.proxyvote.com or follow the instructions on the Notice, proxy card or voting instructions. All stockholders may also enroll at https://enroll.icsdelivery.com/wmi.

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PROXY STATEMENT

Waste Management, Inc. is a holding company, and all operations are conducted by its subsidiaries. Our subsidiaries are operated and managed locally and focus on providing services in distinct geographic areas. Through our subsidiaries, we are North America's leading provider of comprehensive waste management environmental services, providing services throughout the United States ("U.S.") and Canada. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy.

Our Board of Directors is soliciting your proxy for the 2022 Annual Meeting of Stockholders and at any postponement or adjournment of the meeting. We are furnishing proxy materials to our stockholders primarily via the Internet. On March 29, 2022, we sent an electronic notice of how to access our proxy materials and our Annual Report to stockholders that have previously signed up to receive their proxy materials via the Internet. On March 29, 2022, we began mailing a Notice of Internet Availability of Proxy Materials to those stockholders that previously have not signed up for electronic delivery. The Notice contains instructions on how stockholders can access our proxy materials on the website referred to in the Notice or request that a printed set of the proxy materials be sent to them.

Enroll in Electronic Delivery Today! We encourage stockholders to elect to receive all future proxy materials electronically, which is free, fast, convenient, environmentally friendly and helps lower our printing and postage costs. If you are a beneficial owner, visit http://www.proxyvote.com or follow the instructions on your Notice, proxy card or voting instructions. All stockholders may also enroll at https://enroll.icsdelivery.com/wmi. Thank you for supporting our sustainability mission.

Record Date March 15, 2022.

Quorum The holders of a majority of the shares of Common Stock outstanding on the record date must be present in person or by proxy.

Shares Outstanding There were 415,159,816 shares of our Common Stock outstanding and entitled to vote as of March 15, 2022.

Attending the Meeting Due to on-going public health concerns related to the COVID-19 pandemic, we will be holding a virtual Annual Meeting. If you were a stockholder of record as of the close of business on the record date or held shares through a bank, broker, or nominee on that date, you are entitled to access and participate in the virtual Annual Meeting, including asking questions, examining the list of registered stockholders and voting shares. To attend the virtual Annual Meeting, you must use the link provided and enter the 16-digit control number found on your Notice, proxy card, or voting instructions. If you do not have your 16-digit control number, you will be admitted to the virtual Annual Meeting as a guest, but you will not have the ability to vote your shares or ask questions at the virtual Annual Meeting. If you are a beneficial owner, you may contact the bank, broker or other institution where you hold your account if you have questions about obtaining your control number. We encourage you to access the virtual Annual Meeting before it begins. Online check-in will start approximately fifteen minutes before the meeting on May 10, 2022. If you have difficulty accessing the meeting, a phone number for technical support will be available at the virtual Annual Meeting web address on the day of the meeting.

Virtual Annual Meeting Web Address www.virtualshareholdermeeting.com/WM2022

Submitting Your Proxy Internet, phone, or mail.

Voting and Asking Questions at the Meeting Stockholders can vote and ask questions during the virtual Annual Meeting by following the instructions available on the meeting website during the meeting. Questions relevant to the business of the Company or the Annual Meeting may be submitted in a field provided by the virtual meeting platform. An audio recording of the virtual Annual Meeting, including the question and answer segment, will be available on the "Investors" website at www.wm.com after the meeting. Whether or not you plan to attend the virtual Annual Meeting, it is important that your shares be represented and voted at the Annual Meeting. Please read the Notice of Annual Meeting of Stockholders and this Proxy Statement with care and follow the voting instructions to ensure that your shares are represented at the Annual Meeting.

Changing Your Vote Stockholders of record may revoke their proxy at any time before we vote it at the meeting by submitting a later-dated proxy via the Internet, by telephone, by mail, by delivering instructions to our Corporate Secretary before the Annual Meeting revoking the proxy or by voting during the virtual Annual Meeting. Attendance at the Annual Meeting, by itself, will not revoke a proxy. If you hold shares through a bank or brokerage firm, you may revoke any prior voting instructions by contacting that firm.

Votes Required to Adopt Proposals Each share of our Common Stock outstanding on the record date is entitled to one vote on each of the nine director nominees and one vote on each other matter. To be elected, a director must receive a majority of the votes cast with respect to that director's election at the meeting. This means that the number of shares voted "for" a director must exceed 50% of the votes cast with respect to that director. Each of the other proposals requires the favorable vote of the holders of a majority of the outstanding shares of Common Stock present, either by proxy or in person, and entitled to vote on the matter.

Effect of Abstentions and Broker Non-Votes Abstentions will have no effect on the election of directors. For each of the other proposals, abstentions will have the same effect as a vote *against* these matters because they are considered present and entitled to vote on the matters.

If your shares are held by a broker, you may submit your voting instructions to the broker as to how you want your shares to be voted. If you give the broker instructions, your shares must be voted as you direct. If you do not give voting instructions for the proposal to ratify selection of the Company's independent registered public accounting firm, the broker may vote your shares at its discretion. However, with respect to the election of directors, the advisory vote on executive compensation and the stockholder proposal, the broker cannot vote your shares without instructions from you; when this happens, it is called a "broker non-vote." Broker non-votes are counted in determining the presence of a quorum at the meeting, but they have no effect on the outcome of the vote on the election of directors, the advisory vote on executive compensation or the stockholder proposal.

Voting Instructions You may receive more than one proxy card depending on how you hold your shares. If you hold shares through a broker, your ability to submit your voting instructions by phone or over the Internet depends on your broker's voting process. You should complete and return each proxy or other voting instruction request provided to you. If you complete and submit your proxy voting instructions, the persons named as proxies will follow your instructions. If you submit your proxy but do not give voting instructions, we will vote your shares in accordance with the recommendation of the Board on each of the proposals as set forth below. If you give us your proxy, your shares will be voted at the discretion of the proxy holders on any other matters that may properly come before the meeting.

Item	Matter	Board Vote Recommendation
1	**Election of Director Nominees set forth in this Proxy Statement**	**FOR** each director nominee
2	**Ratification of Ernst & Young LLP as the Company's Independent Registered Public Accounting Firm for fiscal year 2022**	**FOR**
3	**Approve the Company's Executive Compensation**	**FOR**
4	**Stockholder Proposal Regarding a Civil Rights Audit**	**AGAINST**

Stockholder Proposals and Nominees for the 2023 Annual Meeting The Company will not consider any proposal or nomination that is not timely or otherwise does not meet the Company's By-law and Securities and Exchange Commission ("SEC") requirements for submitting a proposal or nomination. We also ask that you email a courtesy copy of any notice to GCLegal@wm.com. A copy of our By-laws may be obtained free of charge by writing to our Corporate Secretary and is available in the "ESG — Corporate Governance" section of the "Investors" page on our website at www.wm.com.

Stockholder Proposals: Eligible stockholders who wish to submit a proposal for inclusion in the proxy statement pursuant to Rule 14a-8 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") for our 2023 Annual Meeting must submit their proposal to our Corporate Secretary at Waste Management, Inc., 800 Capitol Street, Suite 3000, Houston, Texas 77002 for receipt on or before November 29, 2022. The proponent and the proposal must comply with the requirements set forth in the federal securities laws, including Rule 14a-8 of the Exchange Act, in order to be included in the Company's proxy statement and proxy card for the 2023 Annual Meeting.

Advance Notice Proposals and Nominations: In addition, the Company's By-laws establish advance notice procedures that must be complied with for stockholders to bring proposals that are not included in the Company's proxy materials and nominations of persons for election as directors (other than pursuant to our proxy access By-law discussed below) before an annual meeting of stockholders. In accordance with our By-laws, for a proposal or nominee not included in our proxy materials to be properly brought before the 2023 Annual Meeting, a stockholder's notice must be delivered to our Corporate Secretary at Waste Management, Inc., 800 Capitol Street, Suite 3000, Houston, Texas 77002 no earlier than December 11, 2022 and no later than January 10, 2023 and must contain the information specified in the Company's By-laws. In addition to satisfying the foregoing advance notice requirements under our By-laws, to comply with the universal proxy rules under the Exchange Act (once effective), stockholders who intend to solicit proxies in support of director nominees other than Company's nominees must provide notice that sets forth the information required by Rule 14a-19 under the Exchange Act no later than March 11, 2023.

Proxy Access Nominations: The Company's By-laws permit a stockholder or group of up to 20 stockholders owning 3% or more of the Company's outstanding Common Stock continuously for at least three years to nominate and include in the Company's proxy materials director nominees constituting up to the greater of 20% of the Board of Directors or two individuals, provided the stockholder(s) and the nominee(s) satisfy the requirements specified in the Company's By-laws. Notice of proxy access director nominees must be delivered to our Corporate Secretary at Waste Management, Inc., 800 Capitol Street, Suite 3000, Houston, Texas 77002 no earlier than October 30, 2022, and no later than November 29, 2022, together with other information required by the Company's By-laws.

Expenses of Solicitation We pay the cost of preparing, assembling and mailing this proxy-soliciting material. In addition to the use of the mail, proxies may be solicited personally, by Internet or telephone, or by Waste Management officers and employees of the Company's subsidiaries without additional compensation. We pay all costs of solicitation, including certain expenses of brokers and nominees who mail proxy materials to their customers or principals. Also, Innisfree M&A Incorporated has been hired to help in the solicitation of proxies for the 2022 Annual Meeting for a fee of $15,000 plus associated costs and expenses.

Annual Report A copy of our Annual Report on Form 10-K for the year ended December 31, 2021, which includes our financial statements for fiscal year 2021, is included with this Proxy Statement. The Annual Report on Form 10-K is not incorporated by reference into this Proxy Statement or deemed to be a part of the materials for the solicitation of proxies.

Householding Information We have adopted a procedure approved by the SEC called "householding." Under this procedure, stockholders of record who have the same address and last name and do not participate in electronic delivery of proxy materials will receive only one copy of the Proxy Statement and Annual Report unless we are notified that one or more of these individuals wishes to receive separate copies. This procedure helps reduce our printing costs and postage fees.

If you wish to receive a separate copy of this Proxy Statement and the Annual Report, please contact: Waste Management, Inc., Corporate Secretary, 800 Capitol Street, Suite 3000, Houston, Texas 77002, telephone 713-512-6200.

If you do not wish to participate in householding in the future and prefer to receive separate copies of the proxy materials, please contact: Broadridge Financial Solutions, Attention Householding Department, 51 Mercedes Way, Edgewood, NY 11717, telephone 1-866-540-7095. If you are currently receiving multiple copies of proxy materials and wish to receive only one copy for your household, please contact Broadridge.

BOARD OF DIRECTORS

Our Board of Directors has nine members. Each member of our Board is elected annually.

Nominees for Director

Name	Age	Tenure	Independent	Committee: Audit	Committee: Management Development & Compensation	Committee: Nominating & Governance
James C. Fish, Jr.	59	2016 – Present				
Andrés R. Gluski	64	2015 – Present	✓	Member	C	
Victoria M. Holt	64	2013 – Present	✓	Member		Member
Kathleen M. Mazzarella	62	2015 – Present	✓		Member	C
Sean E. Menke	53	2021 – Present	✓	Member		
William B. Plummer	63	2019 – Present	✓	C	Member	
John C. Pope	72	1997 – Present	✓		Member	Member
Maryrose T. Sylvester	56	2021 – Present	✓		Member	
Thomas H. Weidemeyer	74	2005 – Present	✓	Member	Member	Member

Chair C Member

Leadership Structure

Mr. Thomas H. Weidemeyer has served as our Non-Executive Chairman of the Board since May 2018 and presides over all meetings of the Board, including executive sessions that only non-employee directors attend. Stockholders and interested parties wishing to communicate with the Board or the non-employee directors should address their communications to Mr. Thomas H. Weidemeyer, Non-Executive Chairman of the Board, c/o Waste Management, Inc., P.O. Box 53569, Houston, Texas 77052-3569.

We separated the roles of Chairman of the Board and Chief Executive Officer at our Company in 2004. We believe that having a Non-Executive Chairman of the Board is in the best interests of the Company and stockholders, due in part to the ever-increasing demands made on boards of directors under federal securities laws, national stock exchange rules and other federal and state regulations. The separation of the positions allows our Chairman of the Board to focus on management of Board matters and allows our Chief Executive Officer to focus his attention on managing our business. Additionally, we believe the separation of those roles contributes to the independence of the Board in its oversight role and in assessing the Chief Executive Officer and management generally. The Non-Executive Chairman's responsibilities include leading full Board meetings and executive sessions and managing the Board function. The Board elected Mr. Weidemeyer to serve as Chairman of the Board due to his many years as a valuable member of our Board, his experience serving on boards of other large public companies and his extensive operational and leadership experience. Mr. Weidemeyer also serves on all three Board committees.

Independence of Board Members

The Board of Directors has determined that each of the following eight non-employee director nominees are independent in accordance with the New York Stock Exchange listing standards: Andrés R. Gluski, Victoria M. Holt, Kathleen M. Mazzarella, Sean E. Menke, William B. Plummer, John C. Pope, Maryrose T. Sylvester and Thomas H. Weidemeyer. James C. Fish, Jr., our President and Chief Executive Officer, is also a director of the Company. As an employee of the Company, Mr. Fish is not an "independent" director.

To assist the Board in determining independence, the Board of Directors adopted categorical standards of director independence, which meet or exceed the requirements of the New York Stock Exchange. These standards specify certain relationships that are prohibited in order for the non-employee director to be deemed independent. The categorical standards our Board uses in determining independence are included in our Corporate Governance Guidelines, which can be found on our website. In addition to these categorical standards, our Board makes a subjective determination of independence considering relevant facts and circumstances.

The Board reviewed all commercial and non-profit affiliations of each non-employee director and the dollar amount of all transactions between the Company and each entity with which a non-employee director is affiliated to determine independence. These transactions consisted of the Company, through its subsidiaries, providing waste management services in the ordinary course of business and the Company's subsidiaries purchasing goods and services in the ordinary course of business and included commercial dealings with Graybar Electric Company, Inc., Sabre Corporation and The AES Corporation. Ms. Mazzarella, Mr. Menke and Mr. Gluski, respectively, serve as chief executive officer of these entities. The Board concluded there are no transactions between the Company and any entity with which a non-employee director is affiliated that (a) are prohibited by our categorical standards of independence, (b) are material individually or in the aggregate or (c) give rise to a material direct or indirect interest for that non-employee director. Accordingly, the Board has determined that each non-employee director candidate meets the categorical standards of independence and that there are no relationships that would affect independence.

Meetings and Board Committees

Last year the Board held seven regular meetings and one special meeting, and each committee of the Board met independently as set forth below. Each director attended at least 75% of the meetings of the Board and the committees on which he or she served. In addition, all directors attended the 2021 virtual Annual Meeting of Stockholders. We do not have a formal policy, but it has been longstanding practice that all directors attend the annual meeting of stockholders unless there are unavoidable schedule conflicts or unforeseen circumstances.

The Board appoints committees to help carry out its duties. Committee members take on greater responsibility for key issues. All members of the Board are invited to attend, and do generally attend, all committee meetings. The committees review meeting results and recommendations with the full Board. The Board has three separate standing committees: the Audit Committee; the Management Development and Compensation Committee (the "MD&C Committee"); and the Nominating and Governance Committee. Additionally, the Board has the power to appoint additional committees, as it deems necessary.

Role in Risk Oversight

Our executive officers have primary responsibility for risk management within our Company. Our Board of Directors oversees risk management to ensure that the processes designed, implemented and maintained by our executives are functioning as intended and adapted when necessary to respond to changes in our Company's strategy as well as emerging risks. The primary means by which our Board oversees our risk management processes is through its regular communications with management and by regularly reviewing our enterprise risk management, or ERM, framework. We believe that our leadership team's engagement and communication methods are supportive of comprehensive risk management practices and that our Board's involvement is appropriate to ensure effective oversight.

Our ERM process is supported by regular inquiries of our Company's Senior Leadership Team, and additional members of management and operations leadership across the enterprise, as to the risks, including emerging risks, that may affect the execution of our strategic priorities or achievement of our long-term outlook. For the most significant risks, the ERM process is designed to generate actionable insights that are actively discussed and reviewed with the Senior Leadership Team and our Board. Risks and opportunities are assessed and then prioritized using internal evaluations of financial impact, likelihood of occurrence, outlook for changes in the nature or extent of risk exposure and a self-assessment of the Company's confidence in existing risk mitigation efforts. The Senior Leadership Team reviews the outcomes of the risk assessments, focusing largely on the estimated scope of impacts, as well as the adequacy of current support by internal staff, the sufficiency of financial support for mitigation measures needed to manage and reduce risk, and the sufficiency of any third-party expertise that may be necessary to supplement internal resources. All significant risks have a standardized scorecard that includes forward-looking action plans with measurable indicators and progress updates on action plans from previous assessments.

At quarterly Audit Committee meetings, management provides an ERM report and regularly provides an in depth update on specific risk topics. Additionally, risks related to our strategy, operations and financial results are also addressed in our Board meetings. Our President and Chief Executive Officer, Chief Operating Officer, Chief Financial Officer, Chief Legal Officer, Chief People Officer and Chief Sustainability Officer report to our Board and Audit Committee at these meetings, and other members of management periodically attend and present information, including those responsible for our Internal Audit and Controls, Environmental Audit, Business Ethics and Compliance, People, Government Affairs, Digital, Insurance, Safety, Finance and Accounting functions. These presentations allow our directors to have direct communication with management and assess management's evaluation and administration of the Company's risk profile through our ERM process. Examples of key areas of assessment addressed by our ERM process and overseen by our Audit Committee and Board include the following: industry disruption; revenue management; legal and regulatory; capital allocation; supply chain management; service to customers; cost discipline; physical infrastructure; brand management; environmental, health & safety; human capital; information security and privacy; technology and currency, interest rate and commodity risk management. Additionally, in accordance with New York Stock Exchange requirements, the Audit Committee is responsible for discussing our major financial risk exposures, steps management has taken to monitor and control such exposures and the Company's process for risk assessment and management, and quarterly reports are made to the Audit Committee on financial and compliance risks.

Management is encouraged to communicate with our directors with respect to any issues or developments that may require consideration between regularly scheduled Board meetings, and members of management are regularly in direct contact with our Non-Executive Chairman of the Board and our committee chairs. Our Non-Executive Chairman of the Board also facilitates communications with our Board of Directors as a whole and is integral in initiating the discussions among the independent directors necessary to ensure management is adequately evaluating and overseeing risks to our Company.

Oversight of ESG Risk and Performance

As North America's leading provider of comprehensive waste management environmental services, sustainability and environmental stewardship is embedded in all that we do. We have enabled a people-first, technology-led focus to drive our mission, that we are always working for a sustainable tomorrow. As a result, it would not be effective, or possible, to assign responsibility for oversight of our environmental, social and governance ("ESG") risk and performance to any one committee of our Board of Directors. Rather, various aspects of ESG, which are already organically a part of our Board and committees' oversight of our performance, risk management and strategic vision, are addressed in different committees and with our full Board of Directors, as appropriate depending on the subject matter. Additionally, following the appointment of Ms. Tara Hemmer as the Company's first Senior Vice President and Chief Sustainability Officer, the Board of Directors now receives a quarterly ESG dashboard to highlight critical focus areas and track progress toward ESG goals.

Our Board has a dedicated annual strategic planning session with our Senior Leadership Team and receives focused strategic updates quarterly. Given the nature of our business, those sessions will address topics such as our people, sustainable operations, waste diversion, recycling business improvements, potentially disruptive technologies and environmental impacts, risks and opportunities. In 2021, the Board received several dedicated strategy updates regarding ESG topics, including our sustainability growth strategy, progress and trends, goal setting, our people-first strategy, and employee retention. Additionally, reflective of the importance of inclusion, equity and diversity and safety to our organization, the full Board of Directors receives annual in-depth reports on leadership, workforce and supplier diversity, as well as quarterly safety performance updates and a detailed annual healthy and safety report. Through these reports and our ESG dashboard, our Board directly oversees our progress toward ESG goals.

Our Audit Committee also plays a significant role in oversight of ESG risk and performance. As discussed above, our Audit Committee receives regular ERM updates with in depth discussion on specific risk topics. At least annually, one of the in depth dsicussions will look at an aspect of ESG risk. Additionally, the Audit Committee receives quarterly reports on our compliance programs, including ethics and environmental and safety audit, with an annual in depth review of our compliance programs. Our Audit Committee also has responsibility for oversight of information and cyber security and assessment of cyber threats and defenses. Our Audit Committee receives reports from our Digital organization at least twice a year. Topics historically covered in such reports include third-party evaluation of our technology infrastructure and information security management system against the industry-standard NIST (National Institute of Standards and Technology) cybersecurity framework; risk mitigation through the Company's enterprise-wide cyber security training, including our Board of Directors, conducted at least annually, regular simulated phishing tests and third-party penetration testing; review of the Company's cyber incident insurance coverage and external cyber incident resources; review of the Company's incident response plan and consideration of applicable laws and regulations, including those related to privacy.

Additional areas of ESG oversight managed by our MD&C Committee include review of employee health, welfare and benefit programs and compensation plan risk assessment. The Committee also engages in quarterly sessions with our President and Chief Executive Officer and our Senior Vice President and Chief People Officer regarding talent development and succession planning at several levels of our organization. A critical component of these talent development and succession planning efforts is the recognition that inclusion, equity and diversity are fundamental Company values. Recognizing the importance of social justice, our People programs overseen by our MD&C Committee embrace and cultivate respect, trust, open communication and diversity of thought and people.

Strong and effective corporate governance is established and overseen by our Nominating & Governance Committee. The Committee leads the process for annual Board, committee and director evaluations and is responsible for review and recommendation of Board and committee composition and leadership. In connection with performing this vital function, the Nominating & Governance Committee reviews the skills, expertise and qualifications of our existing directors, as well as potential external candidates, and considers matters such as inclusion and diversity, tenure and Board refreshment. These efforts deliver on the Nominating & Governance Committee's purpose to identify and nominate the best possible candidates to guide and support the Company's strategy and its commitment to serve and care for our customers, the environment, the communities in which we work and our stockholders. Please see the discussion of the Nominating and Governance Committee below for more information on this robust process.

For additional information about the topics discussed above, including ESG goals, metrics and progress, we encourage stockholders to review our 2021 Sustainability Report at https://sustainability.wm.com. Our 2021 Sustainability Report does not constitute a part of, and is not incorporated by reference into, this Proxy Statement or any report filed with the SEC.

THE AUDIT COMMITTEE

Members:

Number of Meetings Held in 2021: 8

William B. Plummer, *Chairman*
Andrés R. Gluski
Victoria M. Holt
Sean E. Menke
Thomas H. Weidemeyer

Mr. Plummer has been the Chairman of our Audit Committee since May 2020. Each member of our Audit Committee satisfies the additional New York Stock Exchange independence standards for audit committees set forth in Section 10A of the Exchange Act. Our Board of Directors has determined that Audit Committee Chairman Mr. Plummer, Mr. Gluski, Ms. Holt and Mr. Menke are audit committee financial experts as defined by the SEC based on a thorough review of their education and financial and public company experience. Additional information regarding our directors' expertise and qualifications is available under "Election of Directors" below.

Key Functions

The Audit Committee's duties are set forth in a written charter that was approved by the Board of Directors. A copy of the charter can be found on our website. The Audit Committee generally is responsible for overseeing all matters relating to our financial statements and reporting, independent auditors and internal audit function. As part of its function, the Audit Committee reports the results of all of its reviews to the full Board. In fulfilling its duties, the Audit Committee, has the following responsibilities:

Administrative Responsibilities

- Report to the Board, at least annually, all public company audit committee memberships by members of the Audit Committee;
- Perform an annual review of its performance relative to its charter and report the results of its evaluation to the full Board; and
- Adopt an orientation program for new Audit Committee members.

Financial Statements

- Review financial statements and Forms 10-K and 10-Q with management and the independent auditor;
- Review all earnings press releases and discuss with management the type of earnings guidance that we provide to analysts and rating agencies;
- Discuss with the independent auditor any material changes to our accounting principles and matters required to be communicated by Public Company Accounting Oversight Board (United States) Auditing Standard No. 1301 *Communications with Audit Committees;*
- Review our financial reporting, accounting and auditing practices with management, the independent auditor and our internal auditors;
- Review management's and the independent auditor's assessment of the adequacy and effectiveness of internal controls over financial reporting; and
- Review executive officer certifications related to our reports and filings.

Independent Auditor

- Engage an independent auditor, determine the auditor's compensation and replace the auditor if necessary;
- Review the independence of the independent auditor and establish our policies for hiring current or former employees of the independent auditor;
- Evaluate the lead partner of our independent audit team and review a report, at least annually, describing the independent auditor's internal control procedures; and
- Pre-approve all services, including non-audit engagements, provided by the independent auditor.

Internal Audit

- Review the plans, staffing, reports and activities of the internal auditors; and
- Review and establish procedures for receiving, retaining and handling complaints, including anonymous complaints by our employees, regarding accounting, internal controls and auditing matters.

AUDIT COMMITTEE REPORT

The role of the Audit Committee is, among other things, to oversee the Company's financial reporting process on behalf of the Board of Directors, to recommend to the Board whether the Company's financial statements should be included in the Company's Annual Report on Form 10-K and to select the independent auditor for ratification by stockholders. Company management is responsible for the Company's financial statements as well as for its financial reporting process, accounting principles and internal controls. The Company's independent auditors are responsible for performing an audit of the Company's financial statements and expressing an opinion as to the conformity of such financial statements with accounting principles generally accepted in the United States.

The Audit Committee has reviewed and discussed the Company's audited financial statements as of and for the year ended December 31, 2021 with management and the independent registered public accounting firm, and has taken the following steps in making its recommendation that the Company's financial statements be included in its annual report:

- First, the Audit Committee discussed with Ernst & Young LLP, the Company's independent registered public accounting firm for fiscal year 2021, those matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board (United States) and the SEC, including information regarding the scope and results of the audit. These communications and discussions are intended to assist the Audit Committee in overseeing the financial reporting and disclosure process.
- Second, the Audit Committee discussed with Ernst & Young LLP its independence and received from Ernst & Young LLP a letter concerning independence as required under applicable independence standards for auditors of public companies. This discussion and disclosure helped the Audit Committee in evaluating such independence. The Audit Committee also considered whether the provision of other non-audit services to the Company is compatible with the auditor's independence.
- Third, the Audit Committee met periodically with members of management, the internal auditors and Ernst & Young LLP to review and discuss internal controls over financial reporting. Further, the Audit Committee reviewed and discussed management's report on internal control over financial reporting as of December 31, 2021, as well as Ernst & Young LLP's report regarding the effectiveness of internal control over financial reporting.
- Finally, the Audit Committee reviewed and discussed, with the Company's management and Ernst & Young LLP, the Company's audited consolidated balance sheet as of December 31, 2021, and consolidated statements of operations, comprehensive income, cash flows and changes in equity for the fiscal year ended December 31, 2021, including the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments and the clarity of the disclosure.

The Committee has also discussed with the Company's internal auditors and independent registered public accounting firm the overall scope and plans of their respective audits. The Committee meets periodically with both the internal auditors and independent registered public accounting firm, with and without management present, to discuss the results of their examinations and their evaluations of the Company's internal controls over financial reporting.

The members of the Audit Committee are not engaged in the accounting or auditing profession and, consequently, are not experts in matters involving auditing or accounting. In the performance of their oversight function, the members of the Audit Committee necessarily relied upon the information, opinions, reports and statements presented to them by Company management and by the independent registered public accounting firm.

Based on the reviews and discussions explained above (and without other independent verification), the Audit Committee recommended to the Board (and the Board approved) that the Company's financial statements be included in its annual report for its fiscal year ended December 31, 2021. The Committee has also approved the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for fiscal year 2022.

The Audit Committee of the Board of Directors

William B. Plummer, *Chairman*
Andrés R. Gluski
Victoria M. Holt
Sean E. Menke
Thomas H. Weidemeyer

THE MANAGEMENT DEVELOPMENT AND COMPENSATION COMMITTEE

Members: **Number of Meetings Held in 2021: 5**

Andrés R. Gluski, *Chairman*
Kathleen M. Mazzarella
William B. Plummer
John C. Pope
Maryrose T. Sylvester
Thomas H. Weidemeyer

Mr. Gluski has served as the Chairman of our MD&C Committee since May 2021. Each member of our MD&C Committee is independent in accordance with the rules and regulations of the New York Stock Exchange.

Key Functions

Our MD&C Committee is responsible for overseeing our executive officer compensation, as well as developing the Company's compensation philosophy generally. The MD&C Committee's written charter, which was approved by the Board of Directors, can be found on our website. In fulfilling its duties, the MD&C Committee has the following responsibilities:

- Review and establish policies governing the compensation and benefits of our executive officers;
- Approve the compensation of our executive officers and set the bonus plan goals for those individuals;
- Conduct an annual evaluation of our Chief Executive Officer by all independent directors and set his compensation;
- Oversee the administration of our equity-based incentive plans;
- Review the results of the stockholder advisory vote on executive compensation and consider any implications of such voting results on the Company's compensation programs;
- Recommend to the full Board new Company compensation and benefit plans or changes to our existing plans;
- Evaluate and recommend to the Board the compensation paid to our non-employee directors;
- Review the independence of the MD&C Committee's compensation consultant annually; and
- Perform an annual review of its performance relative to its charter and report the results of its evaluation to the full Board.

In overseeing compensation matters, the MD&C Committee may delegate authority for day-to-day administration and interpretation of the Company's plans, including selection of participants, determination of award levels within plan parameters, and approval of award documents, to Company employees. However, the MD&C Committee may not delegate any authority to Company employees under those plans for matters affecting the compensation and benefits of the executive officers.

COMPENSATION COMMITTEE REPORT

The MD&C Committee has reviewed and discussed the *Compensation Discussion and Analysis*, beginning on page 23, with management. Based on their review and discussions, the MD&C Committee recommended to the Board of Directors that the *Compensation Discussion and Analysis* be included in the Company's Proxy Statement.

The Management Development and Compensation Committee of the Board of Directors

Andrés R. Gluski, *Chairman*
Kathleen M. Mazzarella
William B. Plummer
John C. Pope
Maryrose T. Sylvester
Thomas H. Weidemeyer

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

During 2021, Ms. Mazzarella, Ms. Sylvester and Messrs. Gluski, Plummer, Pope and Weidemeyer served on the MD&C Committee, as well as retired Director Mr. Frank M. Clark, Jr. No member of the MD&C Committee was an officer or employee of the Company during 2021; no member of the MD&C Committee is a former officer of the Company; and during 2021, none of our executive officers served as a member of a board of directors or compensation committee of any entity that has one or more executive officers who serve on our Board of Directors or MD&C Committee.

THE NOMINATING AND GOVERNANCE COMMITTEE

Members: **Number of Meetings Held in 2021: 6**

Kathleen M. Mazzarella, *Chairman*
Victoria M. Holt
John C. Pope
Thomas H. Weidemeyer

Ms. Mazzarella was named Chairman of our Nominating and Governance Committee in May 2018. Each member of our Nominating and Governance Committee is independent in accordance with the rules and regulations of the New York Stock Exchange.

Key Functions

The Nominating and Governance Committee has a written charter that has been approved by the Board of Directors and can be found on our website. It is the duty of the Nominating and Governance Committee to oversee matters regarding corporate governance. In fulfilling its duties, the Nominating and Governance Committee has the following responsibilities:

- Review and recommend the composition of our Board, including the nature and duties of each of our committees, in accordance with our Corporate Governance Guidelines;
- Evaluate the charters of each of the committees and recommend directors to serve as committee chairs;
- Review individual director's performance in consultation with the Chairman of the Board and review the overall effectiveness of the Board;
- Recommend retirement policies for the Board, the terms for directors and the proper ratio of employee directors to outside directors;
- Perform an annual review of its performance relative to its charter and report the results of its evaluation to the full Board;
- Review stockholder proposals received for inclusion in the Company's proxy statement and recommend action to be taken with regard to the proposals to the Board; and
- Identify and recommend to the Board candidates to fill director vacancies.

The Nominating and Governance Committee is continually engaged in reviewing the skills, expertise and qualifications of our existing directors, as well as potential external candidates, to identify and nominate the best possible candidates to guide and support the Company's strategy and its commitment to serve and care for our customers, the environment, the communities in which we work and our stockholders. This is a process that the Nominating and Governance Committee believes should continue to involve significant subjective judgments.

The Nominating and Governance Committee considers current and future needs of the Board as a whole and reviews a matrix of experience, skills and expertise to inform nominee criteria. The Committee recommends individuals as nominees based on an evaluation of all factors deemed relevant, including personal and professional integrity and sound judgment, business and professional skills and experience, independence, possible conflicts of interest, diversity and the potential for effectiveness, in conjunction with the other directors, to serve the long-term interests of the stockholders. The Committee seeks diversity of background, thoughts and opinions on the Board obtained through, among other factors, diversity in business experience, professional expertise, gender and racial / ethnic background. The Nominating and Governance Committee has considered the gender and racial / ethnic composition of our Board, including the presence of three women, Mr. Plummer's self-identification as African American / Black and Mr. Gluski's self-identification as Hispanic, and believes these factors, among numerous others, contribute to a valuable diversity of background, thoughts and opinions on our Board.

When nominating or re-nominating individuals to serve as directors of the Company, the Nominating and Governance Committee also consider prior contributions to the Board, evaluation feedback, tenure and age of the Board as a whole and tenure and age of the individual. The Nominating and Governance Committee also takes into account the nature and extent of the directors' other commitments when determining whether to re-nominate that individual for election to the Board. In addition to complying with the limitations on public company board memberships set forth in the Corporate Governance Guidelines, the Committee expects each director to ensure that his or her other commitments do not interfere with his or her duties as a director of the Company. The Committee's primary formal mechanism to support Board refreshment is the retirement age policy set forth in the Corporate Governance Guidelines, which includes the guideline that directors will not stand for reelection to the Board after reaching age 75 unless the Nominating and Governance Committee, having considered the foregoing factors, recommends otherwise. The Committee believes that existing practices have been effective at bringing in new expertise and perspectives, while also maintaining the valuable industry knowledge, experience and stability that our longer-tenured directors provide.

The Nominating and Governance Committee will consider all potential nominees on their merits and welcomes suggestions from directors, members of management, and stockholders. Before being recommended for nomination by the Committee, director candidates are interviewed by the Chief Executive Officer, the Chairman of the Nominating and Governance Committee, and the Non-Executive Chairman of the Board, as well as additional members of the Board and an outside consultant. To suggest a nominee for consideration by the Nominating and Governance Committee, you should submit your candidate's name, together with biographical information and his or her written consent to nomination to the Chairman of the Nominating and Governance Committee, Waste Management, Inc., 800 Capitol Street, Suite 3000, Houston, Texas 77002, between October 30, 2022 and November 29, 2022. Also, see "Stockholder Proposals and Nominees for the 2022 Annual Meeting – Proxy Access Nominations" for additional information about timing, notification and informational requirements under the Company's proxy access By-law provisions.

Related Party Transactions

The Board of Directors has adopted a written Related Party Transactions Policy for the review and approval of related party transactions. Our policy generally defines related party transactions as current or proposed transactions since the beginning of the last fiscal year in excess of $120,000 in which (a) the Company is a participant and (b) any director; executive officer; immediate family member of any director or executive officer; or party known to be the owner of more than five percent of the Company's Common Stock has a direct or indirect material interest. In addition, the policy sets forth certain transactions that will not be considered related party transactions, including (a) executive officer compensation and benefit arrangements; (b) director compensation arrangements; (c) business travel and expenses, advances and reimbursements in the ordinary course of business; (d) indemnification payments and advancement of expenses, and payments under directors' and officers' indemnification insurance policies; (e) any transaction between the Company and any entity in which a related party has a relationship solely as a director; a less than 5% equity holder; a beneficial owner of the Company's Common Stock that reports such ownership on a Schedule 13G due to lack of control or intent to influence control; or an employee (other than an executive officer) and (f) purchases of Company debt securities, provided that the related party has a passive ownership of no more than 2% of the principal amount of any outstanding series. The Nominating and Governance Committee is responsible for overseeing the policy.

All executive officers and directors are required to notify the Chief Legal Officer as soon as practicable of any potential related party transaction that involves the Company. The Chief Legal Officer will determine whether such transaction or relationship constitutes a related party transaction that must be referred to the Nominating and Governance Committee. In the event that the Chief Legal Officer is a participant in a potential related party transaction, the determination whether the transaction must be referred to the Nominating and Governance Committee shall be made by the Chief Executive Officer, with consultation from the Corporate Secretary and the Chief Compliance and Ethics Officer. Any member of the Committee who has an interest in a transaction presented for consideration will abstain from voting on the related party transaction.

The Nominating and Governance Committee will review a detailed description of the transaction, including the terms of the transaction; the business purpose of the transaction; the benefits to the Company and to the relevant related party; and whether the transaction would require a waiver of the Company's Code of Conduct.

In determining whether to approve a related party transaction, the Nominating and Governance Committee will consider, among other things, the following factors:

- whether the terms of the related party transaction are fair to the Company and such terms would be reasonable in an arms-length transaction;
- whether there are business reasons for the Company to enter into the related party transaction;
- whether the related party transaction would impair the independence of any non-employee director;
- whether the related party transaction would present an improper conflict of interest for any director or executive officer of the Company; and
- whether the related party transaction is material to the Company or the individual.

The Nominating and Governance Committee's consideration of related party transactions and its determination of whether to approve such a transaction are reflected in the minutes of the Nominating and Governance Committee's meetings. As discussed above under "Independence of Board Members," the Company reviewed all transactions between the Company and each entity with which a non-employee director is affiliated, as well as all transactions between the Company and each entity with which an executive officer is affiliated, and the Company is not aware of any transactions in 2021 that are required to be disclosed.

Board of Directors Governing Documents

Stockholders may obtain copies of our Corporate Governance Guidelines, the charters of the Audit Committee, the MD&C Committee, and the Nominating and Governance Committee, and our Code of Conduct free of charge by contacting the Corporate Secretary, c/o Waste Management, Inc., 800 Capitol Street, Suite 3000, Houston, Texas 77002 or by accessing the "ESG — Corporate Governance" section of the "Investors" page on our website at www.wm.com.

Non-Employee Director Compensation

Our non-employee director compensation program consists of equity awards and cash consideration. Director compensation is recommended annually by the MD&C Committee, with the assistance of an independent third-party consultant, and set by action of the Board of Directors. The Board's goal in designing directors' compensation is to provide a competitive package that will enable the Company to attract and retain highly skilled individuals with relevant experience. The compensation is also designed to reward the time and talent required to serve on the board of a company of our size and complexity. The Board seeks to provide sufficient flexibility in the form of compensation delivered to meet the needs of different individuals while ensuring that a substantial portion of directors' compensation is linked to the long-term success of the Company. The 2021 non-employee director compensation levels were established in February 2020.

Equity Compensation

Non-employee directors receive an annual grant of shares of Common Stock under the Company's 2014 Stock Incentive Plan. The shares are fully vested at the time of grant; however, non-employee directors are required to hold all net shares until one year after retirement and are subject to ownership guidelines, as discussed below. The grant of shares is generally made in two equal installments, and the number of shares issued is based on the market value of our Common Stock on the dates of grant, which are typically January 15 and July 15 of each year. Each non-employee director serving at the time received a grant of Common Stock valued at approximately $82,500 in January 2021 and July 2021. Mr. Weidemeyer received an additional grant of Common Stock valued at approximately $50,000 in each of January 2021 and July 2021 for his service as Non-Executive Chairman of the Board in 2021.

Cash Compensation

All non-employee directors receive an annual cash retainer for Board service and additional cash retainers for serving as a committee chair. Directors do not receive meeting fees in addition to the retainers. The annual cash retainer is generally paid in advance in two equal installments in January and July of each year. The table below sets forth the cash retainers for 2021:

Annual Retainer:	$115,000
Annual Chair Retainers:	$100,000 for Non-Executive Chairman
	$25,000 for Audit Committee Chair
	$20,000 for MD&C Committee Chair
	$20,000 for Nominating and Governance Committee Chair

Stock Ownership Guidelines for Non-Employee Directors

Our non-employee directors are subject to ownership guidelines that establish a minimum ownership level and require that all net shares received in connection with a stock award, after selling shares to pay all applicable taxes, be held throughout their tenure as a director. The ownership guideline for non-employee directors is equal to approximately five times the non-employee directors' annualized cash retainer. As of December 31, 2021, this amount was $575,000. There is no deadline for non-employee directors to reach their ownership guideline; however, the MD&C Committee performs regular reviews to confirm that all non-employee directors are in compliance or are showing sustained progress toward achievement of their ownership guideline. Based on the closing price of our Common Stock on March 15, 2022, all of our non-employee directors have reached the ownership guideline, except our newest directors, Mr. Menke and Ms. Sylvester, are making appropriate progress toward the ownership guideline. Additionally, our Insider Trading Policy provides that directors are not permitted to hedge their ownership of Company securities, including trading in options, warrants, puts and calls or similar derivative instruments on any security of the Company or selling any security of the Company "short."

Director Compensation Table

The table below shows the aggregate cash paid, and stock awards issued, to the non-employee directors in 2021 in accordance with the descriptions set forth above:

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)	Total ($)
Frank M. Clark, Jr.(2)	67,500	82,541	150,041
Andrés R. Gluski(3)	128,600	165,039	293,639
Victoria M. Holt	115,000	165,039	280,039
Kathleen M. Mazzarella	135,000	165,039	300,039
Sean E. Menke(4)	95,833	137,542	233,375
William B. Plummer	140,000	165,039	305,039
John C. Pope	115,000	165,039	280,039
Maryrose T. Sylvester(4)	95,833	137,542	233,375
Thomas H. Weidemeyer	215,000	264,967	479,967

(1) Amounts in this column represent the grant date fair value of stock awards granted in 2021, in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718. The grant date fair value of the awards is equal to the number of shares issued multiplied by the average of the high and low market price of our Common Stock on each date of grant; there are no assumptions used in the valuation of shares.

(2) As of the 2021 Annual Meeting, Mr. Clark had reached the retirement age set forth in the Company's Corporate Governance Guidelines; therefore, he did not stand for re-election and his term as a director of the Company expired on May 11, 2021.

(3) Mr. Gluski received prorated cash compensation for service as MD&C Committee Chairman from May 11, 2021 until the next regular installment of compensation payments in July 2021.

(4) Mr. Menke and Ms. Sylvester were elected to our Board on March 15, 2021 and each received prorated equity compensation and cash compensation for service as a director from the date of election until the next regular installments in July 2021.

ELECTION OF DIRECTORS

(Item 1 on the Proxy Card)

The first item on the proxy card is the election of nine directors to serve until the 2023 Annual Meeting of Stockholders or until their respective successors have been duly elected and qualified. The Board has nominated the nine director candidates named below and recommends that you vote **FOR** their election. If any nominee is unable or unwilling to serve as a director, which we do not anticipate, the Board, by resolution, may reduce the number of directors that constitute the Board or may choose a substitute. To be elected, a director must receive a majority of the votes cast with respect to that director at the meeting. Our Company's By-laws provide that if the number of shares voted "for" any director nominee does not exceed 50% of the votes cast with respect to that director, he or she will tender his or her resignation to the Board of Directors contingent on the acceptance of such resignation by the Board. The Nominating and Governance Committee will then make a recommendation to the Board on whether to accept or reject the resignation, or whether other action should be taken. The Board will act on the resignation, taking into account the Nominating and Governance Committee's recommendation, and publicly disclose its decision and the rationale behind it within 90 days of the date of the certification of the election results.

The table below shows all of our director nominees; their ages, terms of office on our Board; experience within at least the past five years; and qualifications our Board considered when inviting them to serve as a director as well as nominating them for re-election. We believe that, as a general matter, our directors' past five years of experience gives an indication of the wealth of knowledge and experience these individuals have and that our Board considered; however, we have also included specific skills and areas of expertise that makes each of these individuals a valuable member of our Board. Each of the director nominees currently serves on our Board of Directors.

Director Nominees

JAMES C. FISH, JR.

Age: 59

Director since: 2016

POSITION AND BUSINESS EXPERIENCE

President and Chief Executive Officer — Waste Management, Inc. since November 2016; also served as President and Chief Financial Officer — from July 2016 to November 2016; Executive Vice President and Chief Financial Officer from 2012 to July 2016; Senior Vice President — Eastern Group from 2011 to 2012; Area Vice President — Pennsylvania and West Virginia Area from 2009 to 2011 and Market Area General Manager — Western Pennsylvania/West Virginia from 2008 to 2009 and Rhode Island/Southern Massachusetts from 2006 to 2008.

QUALIFICATIONS

Mr. Fish has been our President and Chief Executive Officer and a member of the Board of Directors since November 2016. Mr. Fish joined the Company in 2001 and held several key positions with the Company prior to his promotion, including Executive Vice President and Chief Financial Officer, Senior Vice President for the Company's Eastern Group, Area Vice President for the Pennsylvania and West Virginia Area and Vice President of Price Management. As a result, Mr. Fish has a broad and deep understanding of the Company and the strategic actions necessary to deliver stockholder value.

Andrés R. Gluski

Age: 64

Director since:
2015

Board Committees:
Audit and Management Development & Compensation (Chair)

Position and Business Experience

President, Chief Executive Officer and Director — The AES Corporation (global energy company) since 2011; also served as Executive Vice President and Chief Operating Officer from 2007 to 2011.

Director of AES Gener (Chile) from 2005 to January 2020.

Qualifications

As CEO of The AES Corporation, a Fortune 500 company in the electricity sector, Mr. Gluski has led the transformation of the company to become a leader in renewable energy, energy storage and cloud-based energy efficiency services. In 2021, AES was the largest seller of renewable energy to corporate customers in the world, according to Bloomberg New Energy Finance. Under his leadership, AES has been designated as one of the *World's Most Ethical Companies* by the Ethisphere® Institute every year since 2014. Mr. Gluski has extensive experience in finance and operations. He is currently on the Executive Committee of the Edison Electric Institute's Board of Directors and serves as Chairman of the Council of the Americas. Mr. Gluski has been voted one of the "Most Influential Leaders" by Latino Leaders magazine and served on The President's Advisory Council for Trade from 2013 to 2016.

Victoria M. Holt

Age: 64

Director since:
2013

Board Committees:
Audit and Nominating & Governance

Position and Business Experience

Retired President and Chief Executive Officer — Proto Labs, Inc. (online and technology-enabled quick-turn manufacturer), served from 2014 to March 2021; also served as Director from 2014 — May 2021.

Director of Piper Sandler Companies since September 2019.

Director of A. O. Smith Corp. since April 2021.

Qualifications

Ms. Holt has served in executive positions at public companies for many years, providing her with extensive knowledge about operations, management, logistical requirements and measuring financial performance of large public companies. Her background and education provide her with expertise in applying environmental solutions, and she brings particular focus to execution of the Company's technology-led growth strategy and use of data analytics. She also has many years of experience serving on the board of directors for public companies.

Kathleen M. Mazzarella

Age: 62

Director since: 2015

Board Committees: Management Development & Compensation and Nominating & Governance (Chair)

Position and Business Experience

Chairman, President and Chief Executive Officer — Graybar Electric Company, Inc. (distributor of electrical, communications and data networking products and provider of related supply chain management and logistics services) since 2013; also served as President and Chief Executive Officer from 2012 to 2013 and Executive Vice President and Chief Operating Officer from 2010 to 2012.

Director of Cigna Corporation since December 2018.

Director of Express Scripts Holding Company from June 2017 until acquisition by Cigna Corporation in December 2018.

Director of Core & Main since January 2019.

Qualifications

Ms. Mazzarella has experience serving as the chief executive of a large corporation, developing expertise in the areas of logistics and supply chain management. During her more than 40-year tenure at Graybar, Ms. Mazzarella has held executive-level positions in sales, human resources, strategic planning and marketing. This diverse background combined with her deep and valuable experience leading various aspects of a customer-focused business will help the Company achieve its strategy to provide an exceptional customer experience. She also has experience serving on large public company, private company and non-profit boards.

Sean E. Menke

Age: 53

Director since: March 2021

Board Committee: Audit

Position and Business Experience

Chief Executive Officer and Director — Sabre Corporation (software and technology solutions provider to the travel industry) since December 2016; also served as President of Sabre Corporation from 2016 to December 2021.

Qualifications

Mr. Menke is a proven transformation leader, using his extensive experience in technology and transportation operations to bring together strategy and data to address complex issues. Mr. Menke has substantial executive leadership experience, having served as President and Chief Executive Officer of Sabre Corporation since 2016, preceded by more than 20 years in the airline industry. His expertise in logistics and commitment to delivering efficient, customer-focused innovation through imaginative technology solutions will help further the Company's strategy to differentiate our services. Mr. Menke also has several years of experience serving on a public company board of directors.

William B. Plummer

Age: 63

Director since: August 2019

Board Committees: Audit (Chair) and Management Development & Compensation

Position and Business Experience

Retired Executive Vice President and Chief Financial Officer — United Rentals, Inc. (world's largest equipment rental company), served from 2008 to October 2018; also served as Senior Adviser from October 2018 to January 2019.

Director of Global Payments Inc. since May 2017.

Director of Mason Industrial Technology, Inc. since February 2021.

Director of Nesco Holdings, Inc. from July 2019 to March 2021.

Director of John Wiley & Sons, Inc. from 2003 to September 2019.

Qualifications

Mr. Plummer has more than two decades of financial leadership experience. During his tenure at United Rentals, Mr. Plummer was responsible for the development of the company's finance activities, investor relations, and co-led its merger, acquisition and divestiture strategies. Mr. Plummer also served as Chief Financial Officer of Dow Jones & Company, where he set policy for global finance and corporate strategy. Mr. Plummer has experience as a member of the board of directors of a number of other large public companies, with particular focus on audit committee service and leadership.

John C. Pope

Age: 72

Director since: 1997

Board Committees: Management Development & Compensation and Nominating & Governance

Position and Business Experience

Chairman of the Board — PFI Group (private investment firm) since 1994.

Lead Director — The Kraft Heinz Company since January 2021; Director of The Kraft Heinz Company, or predecessor companies including Kraft Foods Group, Inc., since 2001.

Director of Talgo S.A. since 2015.

Chairman of the Board — R.R. Donnelley & Sons Company from 2014 to February 2022; Director of R.R. Donnelley & Sons Company, or predecessor companies, from 1996 to February 2022.

Qualifications

Prior to his service on the boards of multiple major corporations, Mr. Pope served in executive operational and financial positions at large airline companies for almost 20 years, providing him with extensive experience and knowledge of management of large public companies with large-scale logistical challenges, high fixed-cost structure and significant capital requirements. His background, education and board service also provide him with expertise in finance and accounting. Mr. Pope has served on the board of directors for many public companies for over 30 years.

Maryrose T. Sylvester

Age: 56

Director since:
March 2021

Board Committee:
Management Development & Compensation

Position and Business Experience

Retired U.S. Managing Director and U.S. Head of Electrification — ABB Ltd. (global technology company focused on electrification, robotics, power and automation), served from August 2019 to August 2020.

Former President and Chief Executive Officer — Current, powered by GE (energy services and information technology subsidiary of General Electric subsequently acquired by private equity investors), served from 2015 to June 2019; also served as President and Chief Executive Officer — GE Lighting from 2011 to 2015 and President and Chief Executive Officer — GE Intelligent Platforms (GE Fanuc) from 2006 to 2011.

Director of Harley-Davidson, Inc. since August 2016.

Director of Vontier Corporation since March 2021.

Qualifications

Ms. Sylvester is a strategic, growth-oriented leader who is passionate about technology, innovation and automation. Through her recent experience leading the U.S. electrification business for ABB Group, combined with her 19 years of executive leadership for divisions of GE, Ms. Sylvester has developed expertise in delivering technology-enabled and energy-efficient sustainable solutions. Ms. Sylvester brings extensive knowledge regarding consumer marketing, supply chain strategy, and operational improvement. She also has valuable governance experience from her service on public company boards.

Thomas H. Weidemeyer

Age: 74

Director since:
2005

Chairman of the Board since:
May 2018

Board Committees:
Audit, Management Development & Compensation and Nominating & Governance

Position and Business Experience

Retired Chief Operating Officer — United Parcel Service, Inc. (package delivery and supply chain services company), served from 2001 to 2003; also served as Director from 1997 to 2003 and Senior Vice President from 1994 to 2003.

Former President, UPS Airlines (UPS owned airline) from 1994 to 2003.

Director of NRG Energy, Inc. since 2003.

Director of The Goodyear Tire & Rubber Company from 2004 to April 2020.

Qualifications

Mr. Weidemeyer served in executive positions at a large public company for several years and has served as our Non-Executive Chairman of the Board since May 2018. His roles encompassed significant operational management responsibility, providing him knowledge and experience in an array of functional areas critical to large public companies, including supply chain and logistics management. Mr. Weidemeyer also has over 20 years of experience serving on the board of directors for public companies.

FOR ✓

THE BOARD OF DIRECTORS RECOMMENDS THAT YOU VOTE FOR THE ELECTION OF EACH OF THE NINE DIRECTOR NOMINEES.

DIRECTOR AND OFFICER STOCK OWNERSHIP

Our Board of Directors has adopted stock ownership guidelines for our non-employee directors based on the recommendation of the MD&C Committee, as described in the Non-Employee Director Compensation discussion. Our executive officers, including Mr. Fish, are also subject to stock ownership guidelines, as described in the Compensation Discussion and Analysis.

The Security Ownership of Management table below shows the number of shares of Common Stock each director and each executive officer named in the Summary Compensation Table beneficially owned as of March 15, 2022, our record date for the Annual Meeting, as well as the number owned by all directors and executive officers as a group. These individuals, both individually and in the aggregate, own less than 1% of our outstanding shares as of the record date.

SECURITY OWNERSHIP OF MANAGEMENT

Name	Shares of Common Stock Owned(1)	Shares of Common Stock Covered by Exercisable Options(2)
Andrés R. Gluski	13,759	—
Victoria M. Holt	19,257	—
Kathleen M. Mazzarella(3)	11,671	—
Sean E. Menke	1,551	—
William B. Plummer	3,776	—
John C. Pope	55,065	—
Maryrose T. Sylvester	1,551	—
Thomas H. Weidemeyer(4)	35,324	—
James C. Fish, Jr.(5)	245,226	140,703
Devina A. Rankin	49,428	37,125
John J. Morris, Jr.	107,552	49,801
Charles C. Boettcher	31,680	34,518
Tara J. Hemmer	37,517	44,005
All directors and executive officers as a group (19 persons)(6)	738,854	468,586

(1) The table reports beneficial ownership in accordance with Rule 13d-3 under the Exchange Act. The amounts reported above include 4,081 stock equivalents attributed to Mr. Fish and 2,295 stock equivalents attributed to Mr. Morris, based on their holdings in the Company's 401(k) Retirement Savings Plan stock fund. The amounts reported above also include 94,844 shares of Common Stock deferred by Mr. Fish. Deferred shares were earned on account of vested equity awards and pay out in shares of Common Stock after the executive's departure from the Company pursuant to the Company's 409A Deferral Savings Plan ("409A Deferral Plan").

Executive officers may choose a Waste Management stock fund as an investment option for deferred cash compensation under the Company's 409A Deferral Plan. Interests in the fund are considered phantom stock because they are equal in value to shares of our Common Stock, but these amounts are not invested in stock or funds. Phantom stock is not included in the table above, but it represents an investment risk based on the performance of our Common Stock. Mr. Morris has 2,491 phantom stock equivalents under the 409A Deferral Plan.

(2) Includes the number of options currently exercisable and options that will become exercisable within 60 days of our record date.

(3) Shares are held by the Mazzarella Living Trust, for which Ms. Mazzarella and her husband serve as trustees.

(4) Shares are held by the Thomas H. Weidemeyer and Mary R. Weidemeyer Trust, for which Mr. Weidemeyer and his wife serve as trustees.

(5) Includes 95,577 shares held in trusts for the benefit of Mr. Fish's minor children.

(6) Included in the "All directors and executive officers as a group" are 10,949 stock equivalents attributable to the executive officers' collective holdings in the Company's 401(k) Retirement Savings Plan stock fund. This group also holds an aggregate of 8,729 phantom stock equivalents under the 409A Deferral Plan that are not included in the table.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS

The table below shows information for persons known to us to beneficially own more than 5% of our Common Stock based on their filings with the SEC through March 15, 2022.

	Shares Beneficially Owned	
Name and Address	**Number**	**Percent[(1)]**
William H. Gates III 500 Fifth Avenue North Seattle, WA 98109	35,234,344[(2)]	8.5%
The Vanguard Group 100 Vanguard Boulevard Malvern, PA 19355	34,980,666[(3)]	8.4%
BlackRock, Inc. 55 East 52nd Street New York, NY 10055	29,941,759[(4)]	7.2%

(1) Percentage is calculated using the number of shares of Common Stock outstanding and entitled to vote as of March 15, 2022.

(2) This information is based on a Schedule 13G/A filed with the SEC on February 14, 2022. Mr. Gates reports that he has sole voting and dispositive power over 16,600,672 shares of Common Stock held by Cascade Investment, L.L.C., as the sole member of such entity. Additionally, the Schedule 13G/A reports that Mr. Gates and Melinda French Gates share voting and dispositive power over 18,633,672 shares of Common Stock beneficially owned by Bill & Melinda Gates Foundation Trust, as co-trustees.

(3) This information is based on a Schedule 13G/A filed with the SEC on February 9, 2022. The Vanguard Group reports that it has shared voting power over 641,208 shares of Common Stock, shared dispositive power over 1,612,971 shares of Common Stock and sole dispositive power over 33,367,695 shares of Common Stock beneficially owned.

(4) This information is based on a Schedule 13G/A filed with the SEC on February 1, 2022. BlackRock, Inc. reports that it has sole voting power over 25,700,248 shares of Common Stock and sole dispositive power over 29,941,759 shares of Common Stock beneficially owned.

DELINQUENT SECTION 16(A) REPORTS

The federal securities laws require our executive officers and directors to file reports of their holdings and transactions in our Common Stock with the SEC. Based on a review of the forms and written representations from our executive officers and directors, we are aware of one delinquent report for 2021. On December 14, 2021, Ms. Nagy received a grant of restricted stock units that will vest in full on the third anniversary of the date of grant. Due to an administrative error, this grant was not reported on a Form 4 at the time, but upon discovery was reported on a Form 5 in January 2022.

EXECUTIVE OFFICERS

The following is a listing of our current executive officers, their ages and their business experience for the past five years (other than Mr. Fish, whose age, experience and qualifications are included in the director nominees section of this Proxy Statement). Unless otherwise specified, all prior positions listed below were with our Company.

Name	Age	Positions Held and Business Experience for Past Five Years
Steven R. Batchelor	64	• Senior Vice President — Operations since January 2019. • Vice President, Collections and Fleet Operations from 2013 to December 2018.
Charles C. Boettcher	48	• Executive Vice President, Corporate Development and Chief Legal Officer since February 2020. • Senior Vice President, Corporate Development and Chief Legal Officer from May 2019 to February 2020. • Senior Vice President and Chief Legal Officer from January 2017 to May 2019. • Also served as Chief Compliance Officer from May 2017 to February 2018.
Rafael E. Carrasco	50	• Senior Vice President — Operations since July 2021. • Area Vice President — Greater Mid-Atlantic Area from April 2017 to June 2021. • Area Vice President — Eastern Canada Area from 2016 to March 2017.
Tara J. Hemmer	49	• Senior Vice President and Chief Sustainability Officer since July 2021. • Senior Vice President — Operations from January 2019 to June 2021. • Senior Vice President — Operations, Safety and Environmental Compliance from January 2018 to December 2018. • Vice President — Disposal Operations, Closed Sites and Environmental Compliance from September 2017 to January 2018. • Area Vice President — Greater Mid-Atlantic Area from 2012 to May 2017.
John J. Morris, Jr.	52	• Executive Vice President and Chief Operating Officer since January 2019. • Senior Vice President — Operations from 2012 to December 2018.
Leslie K. Nagy	47	• Vice President and Chief Accounting Officer since November 2017. • Principal Accounting Officer and Controller, Parker Drilling Company, an oilfield services company, from 2014 to November 2017.
Tamla D. Oates-Forney	50	• Senior Vice President and Chief People Officer since December 2018. • Vice President, Human Resources, GE Energy Connections, an electrification and automation business included in the General Electric Company multinational conglomerate, from 2014 to April 2018.
Devina A. Rankin	46	• Executive Vice President and Chief Financial Officer since February 2020. • Senior Vice President and Chief Financial Officer from February 2017 to February 2020. • Also continued to serve as Treasurer from February 2017 to August 2017. • Vice President, Treasurer and Acting Chief Financial Officer from January 2017 to February 2017.
Nikolaj H. Sjoqvist	49	• Senior Vice President and Chief Digital Officer since October 2017. • Vice President — Revenue Management from 2012 to October 2017.
Michael J. Watson	52	• Senior Vice President and Chief Customer Officer since October 2018. • Area Vice President — Illinois / Missouri Valley Area from 2013 to September 2018.

EXECUTIVE COMPENSATION

COMPENSATION DISCUSSION AND ANALYSIS

Introduction

The Company's Compensation Discussion and Analysis provides information about the Company's executive compensation philosophy and the components of its compensation programs. This includes information about how compensation of the Company's named executive officers for the fiscal year ended December 31, 2021 aligned with the Company's 2021 financial goals and performance. The Compensation Discussion and Analysis helps readers better understand the information found in the Summary Compensation Table and other accompanying tables included in this Proxy Statement.

This Compensation Discussion and Analysis focuses on our executive pay program as it relates to the following executive officers during 2021, whom we refer to as the "named executive officers" or "named executives":

- Mr. James C. Fish, Jr. — President and Chief Executive Officer since November 2016.
- Ms. Devina A. Rankin — Executive Vice President and Chief Financial Officer since February 2020.
- Mr. John J. Morris, Jr. — Executive Vice President and Chief Operating Officer since January 2019.
- Mr. Charles C. Boettcher — Executive Vice President, Corporate Development and Chief Legal Officer since February 2020.
- Ms. Tara J. Hemmer — Senior Vice President and Chief Sustainability Officer since July 2021; Senior Vice President — Operations from January 2019 to June 2021.

For additional information about the named executives' background and prior experience with the Company, see "Executive Officers" above.

Executive Summary

The objective of our executive compensation program is to attract, retain, reward and incentivize talented employees who will lead the Company in the successful execution of our strategy. The Company seeks to accomplish this goal by designing a compensation program that is supportive of and aligns with the strategy of the Company and the creation of stockholder value, while discouraging excessive risk-taking.

We have enabled a people-first, technology-led focus to drive our mission, that we are always working for a sustainable tomorrow. Our strategy leverages and sustains the strongest asset network in the industry to drive best in class customer experience and growth. As North America's leading provider of comprehensive waste management environmental services, sustainability and environmental stewardship is embedded in all that we do. As a result, we believe that positive financial results, including the results for the performance measures on which our executives are compensated, are naturally aligned with the successful execution of our goals to put our people first and position them to serve and care for our customers, the environment, the communities in which we work and our stockholders. On the other hand, we believe our Company would not be successful, on financial performance measures or otherwise, without our industry-leading focus on sustainability.

The following key structural elements and policies further the objective of our executive compensation program:

- a substantial majority of executive compensation is linked to Company performance, through annual cash incentive performance criteria and long-term equity-based incentive awards. As a result, our executive compensation program provides for notably higher total compensation in periods of above-target Company performance, as we saw with respect to equity awards with a three-year performance period ended 2021 and the 2021 annual cash incentive award;
- at target, 72% of total compensation of our President and Chief Executive Officer was tied to long-term equity awards, and approximately 60% of total compensation of our other named executives, on average, was tied to long-term equity awards, which aligns executives' interests with those of stockholders;

- our total direct compensation opportunities for named executive officers are targeted to fall in a range around the competitive median;
- performance-based awards include threshold, target and maximum payouts correlating to a range of performance outcomes and are based on a variety of indicators of performance, which limits risk-taking behavior;
- performance stock units with a three-year performance period, as well as stock options that vest over a three-year period, link executives' interests with long-term performance and reduce incentives to maximize performance in any one year;
- all of our executive officers are subject to stock ownership guidelines, which we believe demonstrates a commitment to, and confidence in, the Company's long-term prospects;
- the Company has clawback provisions in its equity award agreements and executive officer employment agreements, and has adopted a clawback policy applicable to annual incentive compensation, designed to recoup compensation when cause and/or misconduct are found;
- our executive officer severance policy implemented a limitation on the amount of benefits the Company may provide to its executive officers under severance agreements (the "Severance Limitation Policy"); and
- the Company has adopted a policy that prohibits it from entering into agreements with executive officers that provide for certain death benefits or tax gross-up payments.

2021 Pay-For-Performance

During 2021, we delivered strong revenue and income from operations as we continued to recover from COVID-19 pandemic impacts. We experienced improved yield and volume in our landfill, commercial and industrial collection businesses and benefited from our October 2020 acquisition and successful integration of Advanced Disposal Services, Inc. ("ADS"). However, our income from operations was impacted by constraints on labor availability, inflationary cost pressures and commodity-driven business impacts, particularly from recycling brokerage rebates and higher fuel prices. We continue to invest in our people through market wage adjustments, investments in our digital platform and training for new team members. In addition, we were focused on executing on our disciplined pricing programs to drive margin growth in the face of these additional labor cost and inflationary pressures. Following is a summary of the 2021 compensation program results:

Total Shareholder Return

With respect to the half of the performance share units ("PSUs") granted in 2019 with a three-year performance period ended December 31, 2021 that was subject to total shareholder return relative to the S&P 500 ("TSR PSUs"), the performance of the Company's Common Stock on this measure translated into a percentile rank relative to the S&P 500 of 66.95%, resulting in a 167.78% payout on these PSUs in shares of Common Stock. This performance directly benefited our stockholders, delivering total shareholder return of 91.96% over the three-year performance period.

Cash Flow Generation

The Company generated net cash flow from operating activities, less capital expenditures, for purposes of the performance goal associated with the other half of our PSUs ("Cash Flow PSUs") granted in 2019, of $7.49 billion, exceeding the maximum performance level of $6.875 billion for the three-year performance period ended December 31, 2021. This performance resulted in a maximum 200% payout on these PSUs in shares of Common Stock. The robust cash flow generation of our business over the three-year performance period has allowed the Company to fulfill its priorities of investing in the business, funding acquisitions with strong returns, and returning available cash to shareholders through dividend growth and Common Stock repurchases.

Annual Cash Incentive Performance Measures

Company performance on annual cash incentive performance measures for named executive officers is set forth below. Due to these results, each of the named executives received an annual cash incentive payment for 2021 equal to 136.8% of target.

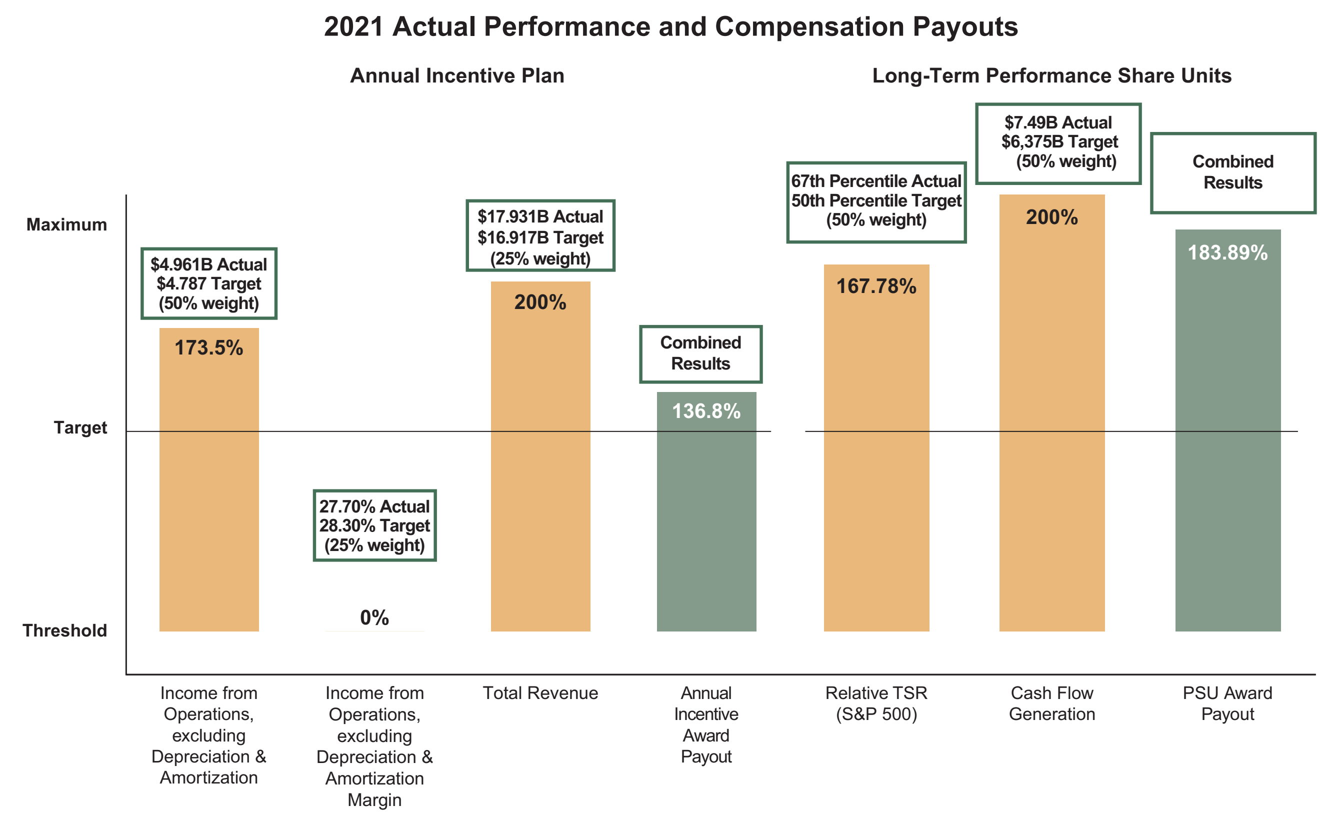
<u>Income from Operations, excluding Depreciation and Amortization</u> — $4.961 billion, yielding a payout of 173.5%

<u>Income from Operations, excluding Depreciation and Amortization Margin ("Margin performance measure")</u> — 27.7%, yielding a payout of 0%

<u>Total Revenue</u> — $17.931 billion, yielding a payout of 200%.

In 2021, the long-term equity compensation awards continued to demonstrate strong alignment between executive pay and Company performance. The payouts on the PSUs granted in 2019 correlate with outstanding cash flow generation and total shareholder return over the three-year performance period, and both stockholders and executives were rewarded by these above-target results.

The blended results of the annual incentive performance measures, and the above target results on the income from operations, excluding depreciation and amortization and total revenue performance measures, evidence the strength and resilience of our business. The Company's results on each of the performance measures reflect that our executives took the right actions to deliver operating and financial performance in the face of broader macroeconomic pressures and market disruption that intensified during the second half of 2021. Unfortunately, due in large part to the distorting effect of our recycling brokerage business on the Margin performance measure, the Company's results on this measure fell below the threshold, yielding a 0% payout. The Company's recycling brokerage business is a relatively small and traditionally lower-margin offering; however, the recycling brokerage business is additive to the Company's overall value proposition and helps the Company attract and retain large accounts. As a result of the sharp increase in recycling commodity prices in 2021, the recycling brokerage business made out-sized contributions to the Company's revenue in 2021, but such revenue also had a more significant negative impact on the Company's Margin performance measure. The MD&C Committee recognized that the results on the Margin performance measure were not reflective of the underlying performance and overall financial results of the Company in 2021, particularly the diligent efforts of management to pursue operational efficiencies and manage costs in the face of labor, supply chain, transportation and other market challenges. However, the overall above-target payout is reflective of the Company's outstanding 2021 income from operations, excluding depreciation and amortization and total revenue performance that allowed the Company to deliver on key strategic priorities, including successfully integrating the acquisition of ADS, driving disciplined organic revenue growth, advancing technology investments focused on customer retention and growth, and cultivating our people-first culture.



Consideration of Stockholder Advisory Vote

When establishing 2021 compensation for the named executives, the MD&C Committee noted the results of the advisory stockholder votes on executive compensation, with more than 92.5% of shares present and entitled to vote at the annual meeting voting in favor of the Company's executive compensation every year since the advisory vote on compensation was implemented. Accordingly, the results of the stockholder advisory vote have not caused the MD&C Committee to recommend any changes to our compensation practices.

2022 Compensation Program Preview

The MD&C Committee continually reviews our compensation program to ensure it is clearly aligned with the business strategy and best supports the accomplishment of our goals. The MD&C Committee also believes that consistency in program design reinforces its efforts to maintain a compensation program that is straightforward, easy to communicate and readily translates into actionable goals. The MD&C Committee's choice of long-term performance measures and respective weighting has been consistent since 2016, and the MD&C Committee is pleased with the financial results and stockholder value that has been generated. Accordingly, the MD&C Committee has approved keeping the 2022 long-term incentive program design for stock options and PSUs consistent with prior years. Additionally, in February 2022, the MD&C Committee approved grants of restricted stock units ("RSUs") to Ms. Rankin, Mr. Morris and Ms. Hemmer in special recognition of leadership and contributions critical to the acquisition of ADS and the subsequent integration and synergy generation (the "ADS Integration Awards"). Mr. Boettcher received a grant of RSUs in connection with the ADS transaction in February 2021, as the MD&C Committee desired to recognize his leadership and contributions critical to the negotiation and consummation of the acquisition in October 2020 (the "ADS Closing Award"), discussed further below.

With respect to the annual incentive program, the design has been largely consistent over recent years. However, in 2021, two of the specific performance measures were modified, primarily in response to accounting and other impacts from our acquisition of ADS. As such impacts have now normalized, the MD&C Committee has approved reverting to the prior annual incentive program design by replacing the 2021 income from operations, excluding depreciation and amortization margin performance measure with an income from operations margin performance measure, maintaining its 25% weighting. Additionally, the 2021 total revenue performance measure has been replaced with the previous internal revenue growth performance measure, also maintaining its 25% weighting.

Our Compensation Philosophy for Named Executive Officers

The Company's compensation philosophy is designed to:

- Attract and retain exceptional employees through competitive compensation opportunities;
- Encourage and reward performance through substantial at-risk performance-based compensation, while discouraging excessive risk-taking behavior; and
- Align our decision makers' long-term interests with those of our stockholders through emphasis on equity ownership.

Additionally, our compensation philosophy is intended to encourage executives to embrace the Company's strategy and to lead the Company in setting aspirations that will continue to drive exemplary performance.

With respect to our named executive officers, the MD&C Committee believes that total direct compensation at target should be in a range around the competitive median according to the following:

- Base salaries should be paid within a range of plus or minus 10% around the competitive median, with attention given to individual circumstances, including strategic importance of the named executive's role, the executive's experience and individual performance;
- Target short-term and long-term incentive opportunities should generally be set at the competitive median; and
- Total direct compensation opportunities should generally be within a range of plus or minus 20% around the competitive median.

Overview of Elements of Our 2021 Executive Compensation Program

Timing	Component	Purpose	Key Features
Current	Base Salary	To attract and retain executives with a competitive level of regular income	Adjustments to base salary primarily consider competitive market data and the executive's individual performance and responsibilities.
Short-Term Performance Incentive	Annual Cash Incentive	To encourage and reward contributions to our annual financial objectives through performance-based compensation subject to challenging, yet attainable, objective and transparent metrics	Cash incentives are targeted at a percentage of base salary and range from zero to 200% of target based on the following performance measures: • Income from Operations, excluding Depreciation and Amortization — designed to encourage balanced growth and profitability (weighted 50%); • Income from Operations, excluding Depreciation and Amortization Margin — designed to motivate pursuit of high margin revenue growth while also controlling costs and operating efficiently (weighted 25%); and • Total Revenue — designed to support strategic growth goals (weighted 25%). The MD&C Committee has discretion to increase or decrease an individual's payment by up to 25% based on individual performance, but such modifier has never been used to increase a payment to a named executive.
Long-Term Performance Incentives	Performance Share Units	To encourage and reward building long-term stockholder value through successful strategy execution; To retain executives; and To increase stockholder alignment through executives' stock ownership	Number of shares delivered range from zero to 200% of the initial target grant based on performance over a three-year performance period. Payout on half of each executive's PSUs granted in 2021 is dependent on cash flow generation, defined as net cash flow provided by operating activities, less capital expenditures, with certain exclusions, which continues our focus on capital discipline, while also aligning the Company with stockholders' free cash flow expectations. We refer to these as Cash Flow PSUs. Payout on the remaining half of the PSUs granted in 2021 is dependent on total shareholder return relative to other companies in the S&P 500 over the three-year performance period. We refer to these as TSR PSUs. PSUs earn dividend equivalents that are paid at the end of the performance period based on the number of shares earned. Recipients can defer the receipt of shares, in which case such shares of Common Stock will be paid out, without interest, at the end of the deferral period.
	Stock Options	To support the growth element of the Company's strategy and encourage and reward stock price appreciation over the long-term; To retain executives; and To increase stockholder alignment through executives' stock ownership	Stock options granted in 2021 vest ratably in three annual increments, beginning on the first anniversary of the date of grant. Exercise price is the average of the high and low market price of our Common Stock on the date of grant. Stock options have a term of ten years.
	Restricted Stock Units	Used on a limited basis (e.g. promotion, new hire, special recognition) to make awards that encourage and reward long-term performance and increase alignment with stockholders	RSUs are not routinely an element of executive compensation, but one-off grants are made in certain circumstances, including in recognition of significant promotions and contributions. RSUs typically vest in full three years after the date of grant. Time-based vesting aids retention. Dividend equivalents on RSUs accrue and are paid in cash upon vesting.

Deferral Plan. Each of our named executive officers is eligible to participate in our 409A Deferral Plan and may elect to defer receipt of portions of their base salary and cash incentives in excess of the annual compensation threshold established under Section 401(a)(17) of the Internal Revenue Code of 1986, as amended (the "IRC"). We believe that providing a program that allows and encourages planning for retirement is a key factor in our ability to attract and retain talent. Additional details on the 409A Deferral Plan can be found in the Nonqualified Deferred Compensation in 2021 table and accompanying disclosure.

Perquisites. The Company provides very limited perquisites or personal benefits to executive officers. The MD&C Committee permits our President and Chief Executive Officer to use the Company's aircraft for business and personal travel; provided, however, that personal use of the Company aircraft attributed to him that results in incremental cost to the Company shall not exceed 90 hours during any calendar year without approval from the Chairman of the MD&C Committee. In 2021, our President and Chief Executive Officer had less than 18 hours of personal use of Company aircraft under this standard. Personal use of the Company's aircraft by other employees resulting in incremental cost to the Company is permitted with Chief Executive Officer approval, although this does not occur frequently. The value of our named executives' personal use of the Company's aircraft is treated as taxable income to the respective executive in accordance with IRS regulations using the Standard Industry Fare Level formula. This is a different amount than we calculate pursuant to the SEC requirement to report the incremental cost to us of their use. See note (4) to the Summary Compensation Table below for additional information about this calculation.

Post-Employment and Change in Control Compensation. The Company provides severance protections that aid in retention of senior leadership by providing the individual with comfort that he or she will be treated fairly in the event of an involuntary termination not for cause. The change in control provisions included in our Executive Severance Protection Plan, our stock option award documentation and, if applicable, employment agreements require a double trigger in order to receive any payment in the event of a change in control situation. Additional details can be found under "— Post Employment and Change in Control Compensation; Clawback Policies" and "Potential Payments Upon Termination or Change in Control."

How Named Executive Officer Compensation Decisions are Made

The MD&C Committee meets several times each year to perform its responsibilities as delegated by the Board of Directors and as set forth in the MD&C Committee's charter. These responsibilities include evaluating and approving the Company's compensation philosophy, policies, plans and programs for our named executive officers. In the performance of its duties, the MD&C Committee regularly reviews the total compensation, including the base salary, target annual cash incentive award opportunities, long-term incentive award opportunities and other benefits, including potential severance payments for each of our named executive officers. At a regularly scheduled meeting each year, the MD&C Committee reviews our named executives' total compensation and compares that compensation to the competitive market, as discussed below. In the first quarter of each year, the MD&C Committee meets to determine salary increases, if any, for the named executive officers; verifies the results of the Company's performance for annual cash incentive and performance share unit calculations; reviews the individual annual cash incentive targets for the current year as a percent of base salary for each of the named executive officers; and makes decisions on granting long-term equity awards.

Compensation Consultant. The MD&C Committee uses several resources in its analysis of the appropriate compensation for the named executive officers. The MD&C Committee selects and employs an independent consultant to provide advice relating to market and general compensation trends. The MD&C Committee also uses the services of its independent consultant for data gathering and analyses. The MD&C Committee has retained Frederic W. Cook & Co., Inc. ("FW Cook") as its independent consultant since 2002. The Company makes regular payments to FW Cook for its services around executive compensation, including meeting preparation and attendance, advice, and best practice information, as well as competitive data. Information about such payments is submitted to the Chairman of the MD&C Committee.

In addition to services related to executive compensation, FW Cook also provides the MD&C Committee information and advice with respect to compensation of the non-employee directors. FW Cook has no other business relationships with the Company and receives no other payments from the Company. The MD&C Committee adopted a charter provision requiring that it consider the independence of any compensation consultants it uses for executive compensation matters. The MD&C Committee has considered the independence of FW Cook in light of SEC rules and New York Stock Exchange listing standards. In connection with this process, the MD&C Committee has reviewed, among other items, a letter from FW Cook addressing the independence of FW Cook and the members of the consulting team serving the MD&C Committee, including the following factors: (a) other services provided to us by FW Cook; (b) fees paid by us as a percentage of FW Cook's total revenue; (c) policies or procedures of FW Cook that are designed to prevent conflicts of interest; (d) any business or personal relationships between the senior advisor of the consulting team with a member of the MD&C Committee; (e) any Company stock owned by the senior advisor or any member of his immediate family and (f) any business or personal relationships between our executive officers and the senior advisor. The MD&C Committee reviewed these considerations and concluded that the work performed by FW Cook and its senior advisor involved in the engagement did not raise any conflict of interest.

Role of CEO and our People Organization. Our President and Chief Executive Officer contributes to compensation determinations by assessing the performance of the other named executive officers and providing these assessments with recommendations to the MD&C Committee. Personnel within the Company's People Organization assist the MD&C Committee by working with the independent consultant to provide information requested by the MD&C Committee and assisting it in designing and administering the Company's compensation programs.

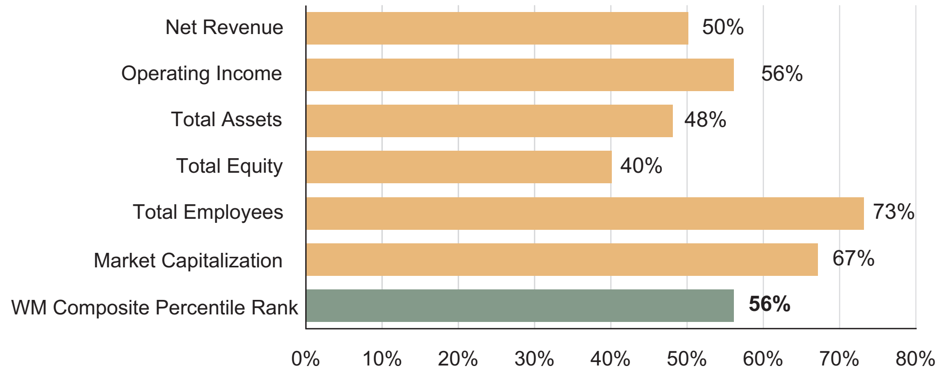
Peer Company Comparisons. The MD&C Committee uses compensation information of comparison groups of companies to gauge the competitive market, which is relevant for attracting and retaining key talent and for ensuring that the Company's compensation practices are aligned with prevalent practices. For purposes of establishing the 2021 executive compensation program, the MD&C Committee considered a competitive analysis of total direct compensation levels and compensation mix for our executive officers during the second half of 2020, using information from:

- Size-adjusted median compensation data from two general industry surveys in which management annually participates; the Aon Hewitt 2020 Total Compensation Measurement Survey and the Willis Towers Watson 2020 Executive Compensation Database Survey. The 2020 Aon Hewitt Total Compensation Measurement Survey included 412 organizations ranging in size from approximately $30 million to $525 billion in annual revenue, and the 2020 Willis Towers Watson Executive Compensation Database Survey included 841 organizations ranging in size from approximately $50 million to $265 billion in annual revenue. Data selected from these surveys is scoped based on Company revenue; and
- Median compensation data from a comparison group of 18 publicly traded U.S. companies, described below.

The comparison group of companies is initially recommended by the independent consultant prior to the data gathering process, with input from management and the MD&C Committee. The composition of the group is evaluated, and a final comparison group of companies is approved by the MD&C Committee each year. The selection process for the comparison group begins with all companies in the Standard & Poor's North American database that are publicly traded U.S. companies in 15 different Global Industry Classifications. These industry classifications are meant to provide a collection of companies in industries that share similar characteristics with us. The companies are then limited to those with at least $5 billion in annual revenue to ensure appropriate comparisons, and further narrowed by choosing those with asset intensive domestic operations, as well as those focusing on transportation and logistics. Companies with these characteristics are chosen because the MD&C Committee believes that it is appropriate to compare our executives' compensation with executives that have similar responsibilities and challenges at other companies.

The following chart sets forth various size comparisons to companies in the comparison group; this table is provided to evidence that the Company was appropriately positioned within its peer group for purposes of establishing 2021 compensation during 2020. All financial and market data are taken from Standard & Poor's Capital IQ, with financial data as of each company's 2019 fiscal year end and market capitalization as of December 31, 2019.

Peer Company Comparison Group



18 Company Comparison Group

American Electric Power	Grainger WW	Ryder System
Avis Budget	Halliburton	Southern
C.H. Robison WW	Hertz Global Holdings	Southwest Airlines
CSX	NextEra Energy	Sysco
Entergy	Norfolk Southern	Union Pacific
FedEx	Republic Services	UPS

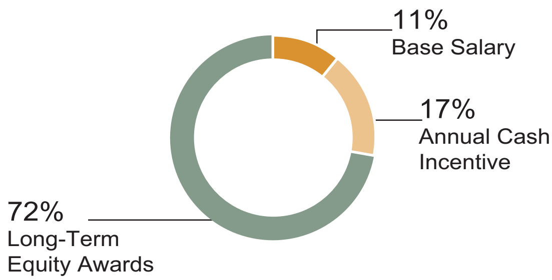
For purposes of each of the named executives, the general industry data and the comparison group data are blended when composing the competitive analysis, when possible, such that the combined general industry data and the comparison group are each weighted 50%. For competitive comparisons, the MD&C Committee has determined that total direct compensation packages for our named executive officers within a range of plus or minus 20% of the median total compensation of the competitive analysis is appropriate. In making these determinations, total direct compensation consists of base salary, target annual cash incentive, and the annualized grant date fair value of long-term equity incentive awards.

Allocation of Compensation Elements and Tally Sheets. The MD&C Committee considers the forms in which total compensation will be paid to executive officers and seeks to achieve an appropriate balance between base salary, annual cash incentive compensation and long-term incentive compensation. The MD&C Committee determines the size of each element based primarily on comparison group data and individual and Company performance. The percentage of compensation that is contingent on achievement of performance criteria typically increases in correlation to an executive officer's responsibilities within the Company, with performance-based incentive compensation making up a greater percentage of total compensation for our most senior executive officers. Additionally, as an executive becomes more senior, a greater percentage of the executive's compensation shifts away from short-term to long-term incentive awards.

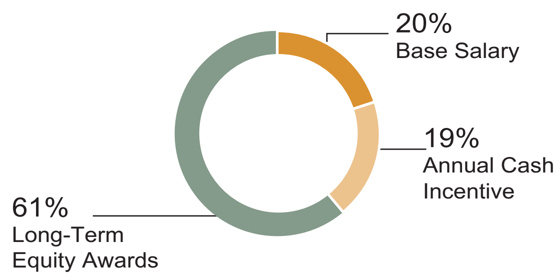
The MD&C Committee uses tally sheets to review the compensation of our named executive officers, which show the cumulative impact of all elements of compensation. These tally sheets include detailed information and dollar amounts for each component of compensation, the value of all equity held by each named executive, and the value of welfare and retirement benefits and severance payments. Tally sheets provide the MD&C Committee with the relevant information necessary to determine whether the balance between short-term and long-term compensation, as well as fixed and variable compensation, is consistent with the overall compensation philosophy of the Company. This information is also useful in the MD&C Committee's analysis of whether total direct compensation provides a compensation package that is appropriate and competitive. Tally sheets are provided annually to the full Board of Directors.

The following charts display the allocation of total 2021 target compensation among base salary, annual cash incentive and long-term equity awards for (a) our President and Chief Executive Officer and (b) our other named executives, on average. These charts reflect the MD&C Committee's 2021 desired total mix of target compensation for named executives, other than our President and CEO, which includes approximately 60% of total compensation derived from long-term equity awards, while long-term equity awards comprised 72% of our President and Chief Executive Officer's total target compensation. These charts also reflect that approximately 89% of our President and Chief Executive Officer's total target compensation opportunities awarded in 2021 were performance-based. Approximately 80% of the total target compensation established in February 2021 for the other named executives, on average, was comprised of annual cash incentive and long-term equity awards, all of which are performance-based with the exception of Mr. Boettcher's ADS Closing Award discussed below. We consider stock options granted under our long-term incentive plan to be performance-based because their value will increase as the market value of our Common Stock increases.

President and CEO



Other Named Executives, on Average



Internal Pay Equity. The MD&C Committee considers the differentials between compensation of the named executive officers. The MD&C Committee also reviews compensation comparisons between the President and Chief Executive Officer and the other executive officers, while recognizing the additional responsibilities of the President and Chief Executive Officer and that such differentials will increase in periods of above-target performance and decrease in times of below-target performance. Based on these considerations, the MD&C Committee concluded that the compensation paid to the President and Chief Executive Officer is reasonable compared to that of the other executive officers.

Tax and Accounting Matters. Following the revision of Section 162(m) of the IRC in 2017, the Company generally may no longer take a deduction for any compensation paid to any of its named executive officers in excess of $1 million. Section 409A of the IRC ("Code Section 409A") generally provides that any deferred compensation arrangement that does not meet specific requirements will result in immediate taxation of any amounts deferred to the extent not subject to a substantial risk of forfeiture. In general, to avoid a Code Section 409A violation, amounts deferred may only be paid out on separation from service, disability, death, a specified time or fixed schedule, a change in control or an unforeseen emergency. Furthermore, the election to defer generally must be made in the calendar year prior to performance of services. We intend to structure all of our compensation arrangements, including our 409A Deferral Plan, in a manner that complies with or is exempt from Code Section 409A.

We account for equity-based payments, including stock options, PSUs and RSUs, in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Stock Compensation ("ASC Topic 718"). The MD&C Committee takes into consideration the accounting treatment under ASC Topic 718 when determining the form and amount of annual long-term equity incentive awards. However, because our long-term equity incentive awards are based on a target dollar value established prior to grant (described in further detail under "Named Executives' 2021 Compensation Program and Results — Long-Term Equity Incentives"), this "value" will differ from the grant date fair value of awards calculated pursuant to ASC Topic 718 and reported in the Summary Compensation Table.

Risk Assessment. The MD&C Committee uses the structural elements set forth in the Executive Summary earlier to establish compensation that will provide sufficient incentives for named executive officers to drive results while avoiding unnecessary or excessive risk taking that could harm the long-term value of the Company. During 2021, the MD&C Committee reviewed the Company's compensation policies and practices and the assessment and analysis of related risk conducted by the independent compensation consultant. Based on this review and analysis, the MD&C Committee and the independent compensation consultant concluded that our compensation policies and practices do not create risks that are reasonably likely to have a material adverse effect on the Company.

Policy on Calculation Adjustments. In 2014, the MD&C Committee adopted a policy on calculation adjustments that affect payouts under annual and long-term incentive awards in order to address the potentially distorting effect of certain items. Such adjustments are intended to align award payments with the underlying performance of the business; avoid volatile, artificial inflation or deflation of awards due to unusual items in either the award year or the previous comparator year; and eliminate counterproductive incentives to pursue short-term gains and protect current incentive opportunities. To ensure the integrity of the adjustments, the policy provides that the MD&C Committee's approach to adjustments shall generally be consistent with the Company's approach to reporting adjusted non-GAAP earnings to the investment community, except that the MD&C Committee has determined that potential adjustments arising from a single transaction or event generally should be disregarded unless, taken together, they change the calculated award payout by at least five percent. For this reason, actual results reported in this Proxy Statement on financial performance measures may differ from earnings results reported to the investment community. The MD&C Committee retains discretion to evaluate all adjustments, both income and expense, as circumstances warrant; however, the MD&C Committee has agreed that it will not have the ability to use negative discretion with respect to the calculation of cash flow for purposes of the Cash Flow PSUs, in order to avoid variable accounting treatment for those awards.

Named Executives' 2021 Compensation Program and Results

Base Salary

The MD&C Committee approved increases to the 2021 base salaries of named executive officers, consistent with our compensation philosophy and driven by competitive market data, internal pay equity considerations and individual performance relative to the executive's responsibilities and contributions. The table below shows the 2021 annual base salary established by the MD&C Committee for each of our named executive officers.

Named Executive Officer	2021 Base Salary
Mr. Fish	$1,300,000
Ms. Rankin	$ 704,247
Mr. Morris	$ 731,854
Mr. Boettcher	$ 650,003
Ms. Hemmer	$ 588,858

Annual Cash Incentive

- *Annual cash incentives were dependent on the following performance measures: Income from Operations, excluding Depreciation and Amortization; Income from Operations, excluding Depreciation and Amortization Margin and Total Revenue.*
- *Blended results on the performance measures resulted in each of the named executives receiving an annual cash incentive payment for 2021 equal to 136.8% of target.*

The MD&C Committee develops financial performance measures for annual cash incentive awards to drive improvements in business operations, as well as support and fund the long-term strategy of the Company. The MD&C Committee has found that the income from operations, excluding depreciation and amortization performance measure encourages balanced focus on growth and profitability. Our income from operations, excluding depreciation and amortization, as a percentage of revenue performance measure, referred to as our Margin performance measure, encourages responsible, high margin revenue growth and cost management and reduction. The total revenue performance measure was implemented to encourage top line growth. The MD&C Committee believes these financial performance measures, collectively, supported and aligned with the strategy of the Company in 2021. With the exception of the results on the Margin performance measure, the MD&C Committee believes these performance measures are reflective of the Company's overall performance and are appropriate indicators of our progress toward the Company's goals. See "2021 Pay-for-Performance" in the Executive Summary above for further discussion.

When setting threshold, target and maximum performance measure levels each year, the MD&C Committee looks to the Company's historical results of operations and analyses and forecasts for the coming year. Specifically, the MD&C Committee considers expected revenue based on analyses of pricing and volume trends, as well as operational and general economic factors and expected costs. The table below details the performance measures set by the MD&C Committee for purposes of the named executive officers' annual cash incentive for 2021.

	Threshold Performance (60% Payment)	Target Performance (100% Payment)	Maximum Performance (200% Payment)
Income from Operations, excluding Depreciation and Amortization	$ 4.550 billion	$ 4.787 billion	$ 5.024 billion
Margin	28.0%	28.3%	28.8%
Total Revenue	$16.068 billion	$16.917 billion	$17.766 billion

The following table sets forth the Company's performance achieved on each of the annual cash incentive performance measures and the payout earned on account of such performance.

Income from Operations, excluding Depreciation and Amortization (weighted 50%)		Margin (weighted 25%)		Total Revenue (weighted 25%)		Total Payout Earned (as a percentage of Target)
Actual	Payout Earned	Actual	Payout Earned	Actual	Payout Earned	
$4.961 billion	173.5%	27.7%	0%	$17.931 billion	200%	136.8%

As discussed above, the MD&C Committee has discretion to adjust the performance calculations in line with its policy on calculation adjustments. The MD&C Committee did not make any adjustments to the calculation of 2021 annual cash incentive performance measures. For purposes of our annual cash incentive awards, the income from operations, excluding depreciation and amortization performance measure and the Margin performance measure are generally defined to be calculated based on the Company's reported income from operations, excluding depreciation and amortization, "Restructuring" and "(Gain) Loss from Divestitures, Asset Impairments and Unusual Items, Net" reported in our Annual Report on Form 10-K.

Target annual cash incentives are a specified percentage of the executives' base salary. The following table shows each named executive's target percentage of base salary for 2021 and annual cash incentive for 2021 paid in March 2022.

Named Executive Officer	Target Percentage of Base Salary	Annual Cash Incentive For 2021[(1)]
Mr. Fish	150	$2,656,497
Ms. Rankin	100	$ 958,821
Mr. Morris	100	$ 996,408
Mr. Boettcher	75	$ 663,727
Ms. Hemmer	90	$ 721,549

(1) Calculations of annual cash incentive payouts, as a percentage of base salary, were made using the named executive's actual base salary received in 2021. Such amounts are lower than if calculated using the 2021 base salaries in the table above due to the timing of when base salary increases take effect.

Long-Term Equity Incentives

Our equity awards are designed to hold individuals accountable for long-term decisions by rewarding the success of those decisions. The MD&C Committee continuously evaluates the components of its programs. In determining which forms of equity compensation are appropriate, the MD&C Committee considers whether the awards granted are achieving their purpose; the competitive market; and accounting, tax or other regulatory issues, among others. In determining the appropriate awards for the named executives' 2021 annual long-term incentive award, the MD&C Committee decided to grant both PSUs comprising 80% of each named executive's award and stock options comprising 20% of each named executive's award, consistent with prior years. Half of each named executives' PSUs granted in 2021 are Cash Flow PSUs and the remaining half are TSR PSUs. Meanwhile, stock options encourage focus on increasing the market value of our stock. Before determining the actual number of PSUs and stock options that were granted to each of the named executives in 2021, the MD&C Committee established a target dollar amount for each named executive's annual total long-term equity incentive award. The values chosen were based primarily on the comparison information for the competitive market and consideration of the named executives' responsibility for meeting the Company's strategic objectives. Target dollar amounts for equity incentive awards will vary from grant date fair values calculated for accounting purposes.

Named Executive Officer	Dollar Values of 2021 Long-Term Equity Incentives Set by the Committee (at Target)
Mr. Fish	$8,500,000
Ms. Rankin	$2,100,000
Mr. Morris	$2,300,000
Mr. Boettcher[1]	$1,300,000
Ms. Hemmer	$1,700,000

(1) Amount does not include Mr. Boettcher's ADS Closing Award discussed below under "Restricted Stock Units".

Overview of Performance Share Units.

- *Named executives were granted new PSUs with a three-year performance period ending December 31, 2023. Half of each named executive's PSUs granted in 2021 are Cash Flow PSUs and the remaining half are TSR PSUs.*
- *Named executives received a payout of 183.89% of the PSUs granted in 2019 with a three-year performance period ended December 31, 2021. The Company exceeded the maximum level of performance for the Cash Flow PSUs, and the Company exceeded the target level of performance for the TSR PSUs.*

PSUs Granted in 2021. Performance share units are granted to our named executive officers annually to align compensation with the achievement of our long-term financial goals and to increase stockholder alignment through stock ownership. PSUs provide an immediate retention benefit to the Company because there is unvested potential value at the date of grant. The number of PSUs granted to our named executive officers corresponds to an equal number of shares of Common Stock. At the end of the three-year performance period for each grant, the Company will deliver a number of shares ranging from 0% to 200% of the initial number of PSUs granted, depending on the Company's three-year performance against pre-established targets.

The MD&C Committee determined the number of PSUs that were granted to each of the named executives in 2021 by taking the targeted dollar amounts established for total long-term equity incentives (set forth in the table above) and multiplying by 80%. Those values were then divided by the average of the high and low market price of our Common Stock over the 30 trading days preceding the grant date to determine the number of PSUs granted. The number of PSUs granted in 2021 are shown in the table below.

Named Executive Officer	Number of PSUs
Mr. Fish	59,650
Ms. Rankin	14,736
Mr. Morris	16,140
Mr. Boettcher	9,122
Ms. Hemmer	11,930

Half of each named executive's PSUs included in the table above are Cash Flow PSUs; the cash flow generation performance measure requires focus on capital discipline and strengthens alignment with stockholders' free cash flow expectations. For purposes of these PSUs, we define cash flow as net cash provided by operating activities, less capital expenditures, with the following adjustments: (a) costs associated with labor disruptions and multiemployer plan withdrawal liabilities are excluded due to being required as a result of past labor commitments combined with changing economic conditions and business climate; (b) strategic acquisition, restructuring, and transformation and reorganization costs are excluded; (c) cash proceeds from strategic divestitures of assets and businesses are excluded; and (d) cash proceeds from divestitures of any other businesses and assets are included (the "2021 Cash Flow PSU Definition"). The table below shows the required achievement of the cash flow generation performance measure and the corresponding potential payouts under our Cash Flow PSUs granted in 2021.

	Threshold		Target		Maximum	
	Performance	Payout	Performance	Payout	Performance	Payout
Cash Flow	$6.60 billion	50%	$7.032 billion	100%	$7.50 billion	200%

The remaining half of each named executive's PSUs are TSR PSUs. This measure directly correlates executive compensation with creation of stockholder value. Total shareholder return is calculated as follows: (Common Stock price at end of performance period — Common Stock price at beginning of performance period + dividends during performance period) / Common Stock price at beginning of performance period. The table below shows the required achievement of the total shareholder return performance measure and the corresponding potential payouts under our TSR PSUs granted in 2021.

Total Shareholder Return Relative to the S&P 500

Performance	Payout
75th percentile (Maximum)	200%
50th percentile (Target)	100%
25th percentile (Threshold)	50%

The different performance measure levels are determined based on an analysis of historical performance and current projections and trends. The MD&C Committee uses this analysis and consideration of different scenarios related to items that affect the Company's performance such as yield, volumes and capital to set the performance measures. As with the consideration of targets for the annual cash incentives, when the MD&C Committee established the cash flow targets, the MD&C Committee carefully considered several material factors anticipated to affect the Company in 2021 and beyond, including general economic and market conditions and economic indicators for future periods, to align the cash flow targets with the Company's long-range strategic plan.

Payout on PSUs for the Performance Period Ended December 31, 2021. Half of the PSUs granted in 2019 with the performance period ended December 31, 2021 were TSR PSUs, and the remaining half of the PSUs granted in 2019 were Cash Flow PSUs. In line with the MD&C Committee's policy on calculation adjustments discussed above, no adjustments were made to the performance calculations for these PSUs. With respect to the TSR PSUs with a three-year performance period ended December 31, 2021, the performance of the Company's Common Stock on this measure translated into a percentile rank relative to the S&P 500 of 66.95%, resulting in a 167.78% payout in shares of Common Stock that were issued in February 2022.

For purposes of the Cash Flow PSUs with a three-year performance period ended December 31, 2021, the Company generated net cash flow from operating activities, less capital expenditures, of $7.49 billion, exceeding the maximum criteria of $6.875 billion by $615 million; this performance level yielded a 200% payout in shares of Common Stock that were issued in February 2022. With respect to these Cash Flow PSUs, the underlying award agreements provide for performance to be measured using the same methodology as the 2021 Cash Flow PSU Definition set forth above, except that these 2019 awards did not provide for exclusion of cash proceeds from strategic divestitures of assets and businesses. In 2020, the Company received approximately $691 million of after-tax proceeds on account of government-required divestitures in connection with our acquisition of ADS. As the Company exceeded maximum performance criteria by $615 million, only approximately $75 million of the total $691 million divestiture proceeds discussed above benefited the award payout for the 2019 Cash Flow PSUs. The remainder of such proceeds were in excess of maximum performance criteria and did not yield any additional award payout.

Stock Options. The MD&C Committee believes use of stock options is appropriate to support the growth element of the Company's strategy. The grant of options made to the named executive officers in the first quarter of 2021 in connection with the annual grant of long-term equity awards was based on the targeted dollar amounts established for total long-term equity incentives (set forth in the table above) and multiplied by 20%. The actual number of stock options granted was determined by assigning a value to the options using an option pricing model and dividing the dollar value of target compensation by the value of an option. The resulting number of stock options are shown in the table below.

Named Executive Officer	Number of Options
Mr. Fish	98,551
Ms. Rankin	24,348
Mr. Morris	26,667
Mr. Boettcher	15,072
Ms. Hemmer	19,710

The stock options granted in 2021 vest ratably in three annual increments, beginning on the first anniversary of the date of grant. The exercise price of the options granted in 2021 is $110.81, which is the average of the high and low market price of our Common Stock on the date of grant, and the options have a term of ten years. We account for our employee stock options under the fair value method of accounting using a Black-Scholes methodology to measure stock option expense at the date of grant. The fair value of the stock options at the date of grant is amortized to expense over the vesting period less expected forfeitures, except for stock options granted to retirement-eligible employees, for which expense is fully recognized at the time of grant.

Restricted Stock Units. Mr. Boettcher was the only named executive with unvested RSUs as of December 31, 2021. Mr. Boettcher received a grant of 4,386 RSUs in connection with the ADS transaction in February 2021, as the MD&C Committee desired to recognize his leadership and contributions critical to the negotiation and consummation of the acquisition in October 2020. These ADS Closing Award RSUs will vest in full on the third anniversary of the date of grant. Dividends on the RSUs will accrue and be paid in cash upon vesting. The RSUs may not be voted or sold until vested. Unvested RSUs are subject to forfeiture in the event of voluntary or for-cause termination. RSUs will be prorated upon involuntary termination other than for cause, and RSUs immediately vest in the event of an employee's death or disability.

The MD&C Committee anticipates that grants of RSUs to named executives will continue to be made on a limited basis in cases such as a significant promotion, increased responsibilities, special recognition and to attract new hires, and that RSUs will not be a routine component of named executive compensation. See "2022 Compensation Program Preview" in the Executive Summary above regarding the ADS Integration Awards of RSUs granted to Ms. Rankin, Mr. Morris and Ms. Hemmer in 2022.

Post-Employment and Change in Control Compensation; Clawback Policies

Severance Protection Plan. In December 2017, we adopted an Executive Severance Protection Plan (the "Severance Protection Plan") and each of Messrs. Fish, Morris, Boettcher and Ms. Rankin entered into new or amended and restated employment agreements (the "2017 Employment Agreements"). The Severance Protection Plan covers each of our executive officers. The 2017 Employment Agreements do not contain separate severance entitlements, but instead provide for additional terms and protections relating to the respective executive's participation in the Severance Protection Plan. The 2017 Employment Agreements are intended to transition the Company's severance protections away from contract-based protections and onto a standardized and flexible plan-based approach. Going forward, the Company does not anticipate entering into new employment agreements with our executive officers, and Ms. Hemmer is not party to an employment agreement with the Company.

Post-Employment Covenants and Clawback Policies. The 2017 Employment Agreements contain noncompetition and nonsolicitation restrictions that apply during employment and for a two-year period following termination. Additionally, the Severance Protection Plan contains (a) a requirement that the individual execute a general release prior to receiving post-termination benefits and (b) a clawback feature that allows for the suspension and refund of termination benefits for subsequently discovered cause. The clawback feature generally allows the Company to cancel any remaining payments due and obligates the named executive to refund to the Company severance payments already made if, within one year of termination of employment of the named executive by the Company for any reason other than for cause, the Company determines that the named executive could have been terminated for cause.

Our current equity award agreements also include a requirement that, in order to be eligible to vest in any portion of the award, the employee must enter into an agreement containing restrictive covenants applicable to the employee's behavior following termination. Additionally, our equity award agreements include compensation clawback provisions that provide, if the MD&C Committee determines that an employee either engaged in or benefited from misconduct, then the employee will refund any amounts received under the equity award agreements. Misconduct generally includes any act or failure to act that caused or was intended to cause a violation of the Company's policies, generally accepted accounting principles or applicable laws and that materially increased the value of the equity award. Further, our MD&C Committee has adopted a clawback policy applicable to our annual cash incentive awards that is designed to recoup annual cash incentive payments when the recipient's personal misconduct affects the payout calculations for the awards. Clawback terms applicable to our incentive awards allow recovery within the earlier to occur of one year after discovery of misconduct and the second anniversary of the employee's termination of employment.

Other Compensation Policies and Practices

Compensation Limitation Policies. The Company has adopted a Severance Limitation Policy that generally provides that the Company may not enter into severance arrangements with its executive officers, as defined in the federal securities laws, that provide for benefits, less the value of vested equity awards and benefits provided to employees generally, in an amount that exceeds 2.99 times the executive officer's then current base salary and target annual cash incentive, unless such future severance arrangement receives stockholder approval. The Company has also adopted its Policy Limiting Certain Compensation Practices, which generally provides that the Company will not enter into compensation arrangements that would obligate the Company to pay a death benefit or gross-up payment to an executive officer unless such arrangement receives stockholder approval. Both of these compensation limitation policies are subject to certain exceptions, including benefits generally available to management-level employees and any payment in reasonable settlement of a legal claim. Additionally, "Death Benefits" under the policy does not include deferred compensation, retirement benefits or accelerated vesting or continuation of equity-based awards pursuant to generally-applicable equity award plan provisions. None of our executive officers are party to any employment agreement or arrangement with the Company that provides for severance, gross-up or death benefits that exceed amounts permitted by these compensation limitation policies.

Stock Ownership Guidelines and Holding Requirements. All of our named executive officers are subject to stock ownership guidelines. We instituted stock ownership guidelines because we believe that ownership of Company stock demonstrates a commitment to, and confidence in, the Company's long-term prospects and further aligns employees' interests with those of our stockholders. We believe that the requirement that these individuals maintain a portion of their individual wealth in the form of Company stock deters actions that would not benefit stockholders generally. Although there is no deadline set for senior executives to reach their ownership guidelines, the MD&C Committee monitors ownership levels to confirm that executives are making sustained progress toward achievement of their ownership guidelines. Additionally, our stock ownership guidelines contain holding requirements. Executives with a title of Senior Vice President or higher, which includes all of our named executives, must hold 100% of all net shares acquired through the Company's long-term incentive plans until the individual's ownership guideline is achieved. Once achieved, the requisite stock ownership level must continue to be retained throughout the executive's employment with the Company.

The MD&C Committee regularly reviews the ownership guidelines to ensure that the appropriate share ownership levels are in place. Guidelines are expressed as a multiple of base salary. Each named executive's multiple of base salary and attainment as of March 15, 2022, using the closing price of our Common Stock on such date and base salaries in effect on December 31, 2021, are set forth below. Shares owned outright, vested RSUs and PSUs that have been deferred, Common Stock equivalents based on holdings in the Company's 401(k) Retirement Savings Plan and phantom stock held in the Company's 409A Deferral Plan count toward meeting the ownership guidelines. Stock options, PSUs, RSUs and restricted stock, if any, do not count toward meeting the ownership guidelines until they are vested or earned.

	Ownership Guideline Multiple of Base Salary	Attainment as of March 15, 2022
Mr. Fish	6x	488%
Ms. Rankin	3x	363%
Mr. Morris	3x	778%
Mr. Boettcher	3x	252%
Ms. Hemmer	3x	330%

As discussed under "Director and Officer Stock Ownership," the MD&C Committee also establishes ownership guidelines for the non-employee directors and performs regular reviews to ensure all non-employee directors are in compliance or are showing sustained progress toward achievement of their ownership guideline.

Insider Trading; Prohibition of Hedging and Pledging Company Securities. The Company's Insider Trading Policy prohibits directors, executive officers and other "designated insiders" from engaging in most transactions involving the Company's Common Stock during periods, determined by the Company, that those individuals are most likely to be aware of material, non-public information. Directors, executive officers and other designated insiders subject to stock ownership guidelines must clear all their transactions in our Common Stock with the Company's office of the Chief Legal Officer in advance. Additionally, it is our policy that directors, executive officers and designated insiders are not permitted to hedge their ownership of Company securities, including (a) trading in options, warrants, puts and calls or similar derivative instruments on any security of the Company, (b) selling any security of the Company "short" and (c) purchasing any financial instruments (including prepaid variable forward contracts, equity swaps, collars and exchange funds) or otherwise engaging in transactions that are designed to or have the effect of offsetting any decrease in the market value of any security of the Company granted as compensation or held, directly or indirectly, by the director, executive officer or designated insider. The Company's Insider Trading Policy also provides that directors and executive officers may not pledge Company securities or hold Company securities in a margin account.

EXECUTIVE COMPENSATION TABLES

We are required to present compensation information in the tabular format prescribed by the SEC. This format, including the tables' column headings, may be different from the way we describe or consider elements and components of compensation internally. The *Compensation Discussion and Analysis* contains a discussion that should be read in conjunction with these tables to gain a complete understanding of our executive compensation philosophy, programs and decisions.

SUMMARY COMPENSATION TABLE

Year	Salary ($)	Stock Awards ($)(1)	Option Awards ($)(2)	Non-Equity Incentive Plan Compensation ($)(3)	All Other Compensation ($)(4)	Total ($)
James C. Fish, Jr. President and Chief Executive Officer						
2021	1,294,231(5)	7,312,195	1,700,005	2,656,497	94,435	13,057,363
2020	1,269,231(5)	8,110,592	1,600,003	1,277,922	116,177	12,373,925
2019	1,232,788(5)	6,853,530	1,399,997	1,704,132	107,654	11,298,101
Devina A. Rankin Executive Vice President and Chief Financial Officer						
2021	700,671	1,806,413	420,003	958,821	56,094	3,942,002
2020	677,061	2,027,801	399,993	456,597	60,493	3,621,945
2019	618,208	1,958,118	399,997	578,516	68,575	3,623,414
John J. Morris, Jr. Executive Vice President and Chief Operating Officer						
2021	728,138	1,978,522	460,006	996,408	67,420	4,230,494
2020	712,115	2,230,520	440,002	479,777	99,517	3,961,930
2019	699,807	2,153,907	440,006	661,476	86,046	4,041,242
Charles C. Boettcher Executive Vice President — Corporate Development and Chief Legal Officer						
2021	646,702	1,604,233	259,992	663,727	46,927	3,221,581
Tara J. Hemmer Senior Vice President and Chief Sustainability Officer						
2021	585,868	1,462,439	339,998	721,549	45,601	3,155,455
2020	567,062	1,672,967	330,005	347,774	57,125	2,974,933
2019	535,670	1,615,372	330,001	479,828	38,502	2,999,373

(1) Amounts in this column represent the grant date fair value of PSUs granted to all named executives annually and 4,386 ADS Closing Award RSUs granted to Mr. Boettcher in 2021. The grant date fair values were calculated in accordance with ASC Topic 718, as further described in Note 14 in the Notes to the Consolidated Financial Statements in our 2021 Annual Report on Form 10-K. The grant date fair value of a TSR PSU granted in 2021, based on a Monte Carlo valuation, is $134.36, and because total shareholder return is a market condition, projected achievement is embedded in the grant date fair value. The grant date fair value of a Cash Flow PSU granted in 2021, and an ADS Closing Award RSU, is $110.81, which is the average of the high and low market price of our Common Stock on the date of the grant, in accordance with our 2014 Stock Incentive Plan. The table below shows (a) the aggregate grant date fair value of Cash Flow PSUs assuming target level of performance is achieved (this is the amount included in the Stock Awards column in the Summary Compensation Table) and (b) the aggregate grant date fair value of the same PSUs assuming the Company will reach the highest level of achievement for this performance measure and maximum payouts will be earned.

	Year	Aggregate Grant Date Fair Value of Cash Flow PSUs Assuming Target Level of Performance Achieved ($)	Aggregate Grant Date Fair Value of Cash Flow PSUs Assuming Highest Level of Performance Achieved ($)
Mr. Fish	2021	3,304,908	6,609,817
	2020	3,332,328	6,664,656
	2019	2,914,920	5,829,840
Ms. Rankin	2021	816,448	1,632,896
	2020	833,145	1,666,290
	2019	832,820	1,665,640
Mr. Morris	2021	894,237	1,788,473
	2020	916,434	1,832,869
	2019	916,092	1,832,184
Mr. Boettcher	2021	505,404	1,010,808
Ms. Hemmer	2021	660,982	1,321,963
	2020	687,357	1,374,715
	2019	687,044	1,374,088

(2) Amounts in this column represent the grant date fair value of stock options granted annually, in accordance with ASC Topic 718. The grant date fair value of the options granted in 2021, estimated using the Black-Scholes option pricing model, is $17.25 per option. See Note 14 in the Notes to the Consolidated Financial Statements in our 2021 Annual Report on Form 10-K for additional information.

(3) Amounts in this column represent cash incentive awards earned and paid based on the achievement of performance criteria. See "Compensation Discussion and Analysis — Named Executive's 2021 Compensation Program and Results — Annual Cash Incentive" for additional information.

(4) The amounts included in "All Other Compensation" for 2021 are shown below (in dollars):

	401(k) Plan Matching Contributions	409A Deferral Plan Matching Contributions	Life Insurance Premiums	Perquisites and Other Personal Benefits[(a)]
Mr. Fish	13,050	38,731	2,145	40,509
Ms. Rankin	13,050	41,788	1,256	—
Mr. Morris	13,050	26,572	1,313	26,485
Mr. Boettcher	13,050	32,709	1,168	—
Ms. Hemmer	13,050	31,492	1,059	—

(a) This column consists of incremental cost to us for personal use of Company aircraft. Annually, we calculate an hourly direct operating cost for Company aircraft using industry standard measurements of costs for fuel, catering, telecommunications, maintenance, landing and hangar fees, flight plans and permits, and crew. We then allocate incremental cost to the named executive based on the amount of aircraft time required for the personal use, multiplied by the direct operating cost. When a deviation is made from business travel to pick up or drop off the executive in another location for a personal purpose, we calculate the time difference resulting from the flight plan deviation and multiply it by the direct operating cost. We also allocate incremental cost to the named executive in the rare event that a deadhead flight is required to position the aircraft to serve personal needs. We own and operate our aircraft primarily for business use; therefore, we do not include purchase costs or other fixed costs associated with our aircraft in the direct operating cost.

(5) Includes $100,000 in each of 2021 and 2020 and $75,000 in 2019 of base salary to which Mr. Fish was entitled but voluntarily relinquished to fund a scholarship program for children of Company employees.

GRANT OF PLAN-BASED AWARDS IN 2021

	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards[1]			Estimated Future Payouts Under Equity Incentive Plan Awards[2]							
Grant Date	Threshold ($)	Target ($)	Maximum ($)	Threshold (#)	Target (#)	Maximum (#)	All other Stock Awards: Number of Shares of Stock or Units (#)[3]	All other Option Awards: Number of Securities Underlying Options(#)[4]	Exercise or Base Price of Option Awards ($/sh)[5]	Closing Market Price on Date of Grant ($/sh)	Grant Date Fair Value of Stock and Option Awards ($)[6]
James C. Fish, Jr.											
Cash Incentive	1,165,130	1,941,883	3,883,767								
2/23/21				29,825	59,650	119,300					7,312,195
2/23/21								98,551	110.81	109.92	1,700,005
Devina A. Rankin											
Cash Incentive	420,536	700,893	1,401,787								
2/23/21				7,368	14,736	29,472					1,806,413
2/23/21								24,348	110.81	109.92	420,003
John J. Morris, Jr.											
Cash Incentive	437,021	728,368	1,456,737								
2/23/21				8,070	16,140	32,280					1,978,522
2/23/21								26,667	110.81	109.92	460,006
Charles C. Boettcher											
Cash Incentive	291,108	485,180	970,360								
2/23/21				4,561	9,122	18,244					1,118,220
2/23/21								15,072	110.81	109.92	259,992
2/23/21							4,386				486,013
Tara J. Hemmer											
Cash Incentive	316,469	527,448	1,054,897								
2/23/21				5,965	11,930	23,860					1,462,439
2/23/21								19,710	110.81	109.92	339,998

(1) Actual payouts of cash incentive awards for 2021 performance are shown in the Summary Compensation Table under "Non-Equity Incentive Plan Compensation." The named executives' possible annual cash incentive payouts are calculated using a percentage of base salary approved by the MD&C Committee. The threshold levels represent the amounts that would have been payable if the minimum performance criteria were met for each performance measure. See "Compensation Discussion and Analysis — Named Executive's 2021 Compensation Program and Results — Annual Cash Incentive" for additional information about these awards.

(2) Consists of the number of shares of Common Stock potentially issuable based on the achievement of performance criteria under PSU awards granted under our 2014 Stock Incentive Plan. See "Compensation Discussion and Analysis — Named Executive's 2021 Compensation Program and Results — Long-Term Equity Incentives — Performance Share Units" for additional information about these awards. The performance period for these awards ends December 31, 2023. PSUs earn dividend equivalents, which are paid out based on the number of shares earned at the end of the performance period.

(3) Consists of the number of shares of Common Stock issuable upon the vesting of the ADS Closing Award RSUs granted under our 2014 Stock Incentive Plan. These RSUs vest in full on the third anniversary of the date of grant. See "Compensation Discussion and Analysis — Named Executive's 2021 Compensation Program and Results — Long-Term Equity Incentives — Restricted Stock Units" for additional information about this award.

(4) Consists of the number of shares of Common Stock potentially issuable upon the exercise of options granted under our 2014 Stock Incentive Plan. See "Compensation Discussion and Analysis — Named Executive's 2021 Compensation Program and Results — Long-Term Equity Incentives — Stock Options" for additional information about these awards. Stock options vest ratably in three annual increments, beginning on the first anniversary of the date of grant. Although we consider stock options to be a form of incentive compensation, only awards with performance criteria are included as "Equity Incentive Plan Awards" in our compensation tables.

(5) The exercise price represents the average of the high and low market price of our Common Stock on the date of the grant, in accordance with our 2014 Stock Incentive Plan.

(6) These amounts are grant date fair values of the awards as calculated under ASC Topic 718 and as further described in notes (1) and (2) to the Summary Compensation Table.

OUTSTANDING EQUITY AWARDS AS OF DECEMBER 31, 2021

	Option Awards				Stock Awards[(1)]			
Name	Number of Securities Underlying Unexercised Options Exercisable (#)[(2)]	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)[(6)]	Market Value of Shares or Units of Stock That Have Not Vested ($)[(6)]	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)[(7)]	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)[(7)]
James C. Fish, Jr.								
	—	98,551[(3)]	110.81	2/23/2031	—	—	112,542	37,566,520
	25,284	75,854[(4)]	126.005	2/19/2030	—	—	—	—
	—	57,283[(5)]	98.898	2/19/2029	—	—	—	—
Devina A. Rankin								
	—	24,348[(3)]	110.81	2/23/2031	—	—	27,960	9,333,048
	6,321	18,963[(4)]	126.005	2/19/2030	—	—	—	—
	—	16,367[(5)]	98.898	2/19/2029	—	—	—	—
John J. Morris, Jr.								
	—	26,667[(3)]	110.81	2/23/2031	—	—	30,686	10,242,987
	6,953	20,860[(4)]	126.005	2/19/2030	—	—	—	—
	9,002	18,004[(5)]	98.898	2/19/2029	—	—	—	—
Charles C. Boettcher								
	—	15,072[(3)]	110.81	2/23/2031	4,386	732,023	17,718	5,914,268
	4,108	12,327[(4)]	126.005	2/19/2030	—	—	—	—
	10,638	10,639[(5)]	98.898	2/19/2029	—	—	—	—
Tara J. Hemmer								
	—	19,710[(3)]	110.81	2/23/2031	—	—	22,840	7,623,992
	5,215	15,645[(4)]	126.005	2/19/2030	—	—	—	—
	13,502	13,503[(5)]	98.898	2/19/2029	—	—	—	—

(1) Values are based on the closing price of our Common Stock on December 31, 2021 of $166.90.

(2) Includes vested stock options granted on February 19, 2019 and February 19, 2020 pursuant to our 2014 Stock Incentive Plan.

(3) Includes stock options granted on February 23, 2021 that vest ratably in three annual increments, beginning on the first anniversary of the date of grant.

(4) Includes stock options granted on February 19, 2020 that vested 25% on the first anniversary of the date of grant. An additional 25% will vest on the second anniversary of the date of grant and 50% will vest on the third anniversary of the date of grant.

(5) Includes stock options granted on February 19, 2019 that vested 25% on the first and second anniversary of the date of grant. The remaining 50% will vest on the third anniversary of the date of grant.

(6) Includes the ADS Closing Award RSUs granted to Mr. Boettcher on February 23, 2021 under our 2014 Stock Incentive Plan. The RSUs vest in full on the third anniversary of the date of grant.

(7) Includes PSUs with three-year performance periods ending December 31, 2022 and December 31, 2023. Payouts on PSUs are made after the Company's financial results for the performance period are reported and the MD&C Committee determines achievement of performance results and corresponding vesting, typically in February of the succeeding year. The PSUs for the performance period ended December 31, 2021 are not included in the table as they are considered earned as of December 31, 2021 for proxy statement disclosure purposes; instead, such PSUs are included in the Option Exercises and Stock Vested table below. Pursuant to SEC disclosure instructions, because the Company's performance on the metrics governing our PSUs with the performance period ended December 31, 2021 exceeded target, the payout value of unearned awards is calculated assuming maximum performance criteria is achieved. The following number of PSUs have a performance period ending December 31, 2022: Mr. Fish — 52,892; Ms. Rankin — 13,224; Mr. Morris — 14,546; Mr. Boettcher — 8,596; and Ms. Hemmer — 10,910. The following number of PSUs have a performance period ending December 31, 2023: Mr. Fish — 59,650; Ms. Rankin — 14,736; Mr. Morris — 16,140; Mr. Boettcher — 9,122; and Ms. Hemmer — 11,930.

OPTION EXERCISES AND STOCK VESTED

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise(#)(1)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)(2)	Value Realized on Vesting ($)(2)
James C. Fish, Jr.	106,625	5,105,012	108,399	15,459,399
Devina A. Rankin	44,327	2,873,915	30,971	4,416,951
John J. Morris, Jr.	14,803	379,054	34,067	4,858,489
Charles C. Boettcher	46,918	3,335,416	20,096	2,866,005
Tara J. Hemmer	16,447	1,048,127	25,550	3,643,831

(1) The following number of net shares were received, after withholdings and the sale of shares to cover option costs and taxes: Mr. Fish — 22,037; Ms. Rankin — 11,212; Mr. Morris — 2,072; Mr. Boettcher — 13,561; and Ms. Hemmer — 4,261.

(2) Includes shares of the Company's Common Stock issued on account of PSUs granted in 2019 with a performance period ended December 31, 2021. The determination of achievement of performance results and corresponding vesting of such PSUs was performed by the MD&C Committee in February 2022. Following such determination, shares of the Company's Common Stock earned under this award were issued on February 15, 2022, based on the average of the high and low market price of our Common Stock on that date.

Nonqualified Deferred Compensation in 2021

Amounts that Can be Deferred. Under our 409A Deferral Plan, each of our named executive officers may elect to defer receipt of portions of their base salary and annual cash incentives for the applicable fiscal year in excess of the annual compensation threshold (the "Threshold") established under Section 401(a)(17) of IRC. For 2021, the Threshold was $290,000. Such deferrals will result in a deferral of taxation on the amounts deferred. The 409A Deferral Plan provides that a plan participant may defer, for payment at a future date (a) up to 25% of the participant's base salary, and up to 100% of the participant's annual cash incentives, payable after the aggregate of such base salary and annual cash incentives reaches the Threshold; (b) any RSUs that would otherwise be received by the plan participant; and (c) any PSUs that would otherwise be received by the plan participant.

Matching Contributions. The Company match provided under the 409A Deferral Plan is dollar for dollar on the employee's deferrals, up to 3% of the employee's aggregate base salary and cash incentives in excess of the Threshold, and fifty cents on the dollar on the employee's deferrals, in excess of 3% and up to 6% of the employee's aggregate base salary and cash incentives in excess of the Threshold. Additional deferral contributions will not be matched but will be tax-deferred. Amounts deferred under this plan are allocated into accounts that mirror selected investment funds in our 401(k) Retirement Savings Plan, including a Company stock fund, although the amounts deferred are not actually invested in stock or funds. There is no Company match on deferred RSUs or PSUs, but the Company makes a cash payment of dividend equivalents on the shares deferred at the same time and at the same rate as dividends on the Company's Common Stock.

Timing of Distributions. Participating employees generally can elect to receive distributions commencing six months after the employee leaves the Company in the form of annual installments or a lump sum payment. Special circumstances may allow for a modified or accelerated distribution, such as the employee's death, an unforeseen emergency, or upon termination of the plan. In the event of death, distribution will be made to the designated beneficiary in a single lump sum in the following calendar year. In the event of an unforeseen emergency, the plan administrator may allow an early payment in the amount necessary to satisfy the emergency. All participants are immediately 100% vested in all of their contributions, Company matching contributions, and gains and/or losses related to their investment choices

Name	Executive Contributions in Last Fiscal Year ($)(1)	Registrant Contributions in Last Fiscal Year ($)(2)	Aggregate Earnings in Last Fiscal Year ($)(3)	Aggregate Withdrawals/ Distributions ($)(3)	Aggregate Balance at Last Fiscal Year End ($)(4)
James C. Fish, Jr.	48,413	38,731	5,140,175	218,141	18,382,929
Devina A. Rankin	52,036	41,788	91,852	—	641,920
John J. Morris, Jr.	35,430	26,572	527,655	—	2,696,489
Charles C. Boettcher	40,575	32,709	66,311	—	515,684
Tara J. Hemmer	57,623	31,492	77,883	—	613,737

(1) Contributions are made pursuant to the Company's 409A Deferral Plan. Executive contributions of base salary and annual cash incentive compensation is included in the Salary column and the Non-Equity Incentive Plan Compensation column, respectively, of the Summary Compensation Table.

(2) Company contributions to the executives' 409A Deferral Plan accounts are included in the All Other Compensation column in the Summary Compensation Table.

(3) Earnings on these accounts are not included in any other amounts in the tables included in this Proxy Statement, as the amounts of the named executives' earnings on deferred cash compensation represent the general market gains (or losses) on investments, rather than amounts or rates set by the Company for the benefit of the named executives. In the case of Mr. Fish, who has deferred receipt of a total of 94,844 shares of Common Stock in prior years, earnings also include the change in the closing price per share of the Company's Common Stock from December 31, 2020 to December 31, 2021, plus $2.30 of dividend equivalents paid per share of Common Stock in 2021, multiplied by the number of shares deferred. The dividend equivalents on the deferred shares were paid in cash to Mr. Fish during 2021 and are reflected in the Aggregate Withdrawals/ Distributions column above. The value of Mr. Fish's deferred shares was included in the Option Exercises and Stock Vested table in the years such awards vested.

(4) Amounts shown in this column include the following amounts that were reported as compensation to the named executive in the Summary Compensation Table for 2019-2021: Mr. Fish — $592,656; Ms. Rankin — $271,326;

Mr. Morris — $204,817; and Ms. Hemmer — $261,526. With respect to Mr. Boettcher, who became a named executive in 2021, $73,284 of his total amount shown in this column was reported as compensation in the Summary Compensation Table for 2021.

Potential Payments Upon Termination or Change in Control

Change in Control. The post-employment compensation our named executives receive is based on provisions included in retirement and severance plan documents, employment agreements and equity incentive award documentation. Severance protections aid in retention of senior leadership by providing the individual with comfort that he or she will be treated fairly in the event of an involuntary termination not for cause. The change in control provisions included in the Severance Protection Plan, our stock option award agreements and, if applicable, employment agreements require a double trigger in order to receive any payment in the event of a change in control situation. First, a change in control must occur, and second, the individual must terminate employment for good reason or the Company must terminate employment without cause within six months prior to or two years following the change in control event. PSUs are paid out in cash on a prorated basis based on actual results achieved through the end of the fiscal quarter prior to a change in control. Thereafter, the executive would typically receive a replacement award from the successor entity, provided that the successor entity is publicly traded. If the successor is not publicly traded, the executive will be entitled to a replacement award of cash. RSUs, which are not routinely a component of our named executive officer compensation, vest upon a change in control, unless the successor entity converts the awards to equivalent grants in the successor. In the case of both converted RSU and PSU awards, they will vest in full if the executive is terminated without cause following the change in control. We believe providing change in control protection encourages our named executives to pursue and facilitate transactions that are in the best interests of stockholders while not granting executives an undeserved windfall.

Involuntary Termination or Resignation for Good Reason. Under the Severance Protection Plan, in the event a participant is terminated without cause or resigns for good reason, subject to execution of a release of claims and continued compliance with all restrictive covenants, he or she will be entitled to receive: (a) cash severance in an aggregate amount equal to two times the sum of the participant's base salary and target annual bonus (with one half payable in a lump sum at termination, and the remaining half payable in installments over a two-year period); (b) continuation of group health benefits over a two-year period following termination and (c) a *pro rata* annual cash incentive payment for the year of termination. In the event a named executive is terminated for cause, he or she is entitled to any accrued but unpaid salary only, and all unvested awards and outstanding stock options, whether exercisable or not, are forfeited.

The terms "cause," "good reason," and "change in control" are defined in the executives' employment agreements, the Severance Protection Plan and equity award plans and agreements, as applicable, but such terms have the meanings generally described below. You should refer to the applicable documentation, accessible through the Exhibit List to the Company's Annual Report on Form 10-K, for the full definitions.

"Cause" generally means the named executive has: deliberately refused to perform his or her duties; breached his or her duty of loyalty to the Company; been convicted of a felony; intentionally and materially harmed the Company; materially violated the Company's policies and procedures or breached the covenants contained in his or her agreement.

"Good Reason" generally means that, without the named executive's consent: his or her duties or responsibilities have been substantially changed; he or she has been removed from his or her position; the Company has breached his or her employment agreement; any successor to the Company has not assumed the obligations under his or her employment agreement; or he or she has been reassigned to a location more than 50 miles away.

"Change in Control" generally means that: at least 25% of the Company's Common Stock has been acquired by one person or persons acting as a group; certain significant turnover in our Board of Directors has occurred; there has been a merger of the Company in which at least 50% of the combined post-merger voting power of the surviving entity does not consist of the Company's pre-merger voting power, or a merger to effect a recapitalization that resulted in a person or persons acting as a group acquired 25% or more of the Company's voting securities; or the Company is liquidating or selling all or substantially all of its assets.

Benefits to a participant under the Severance Protection Plan are subject to reduction to the extent required by the Company's Severance Limitation Policy or if the excise tax described in Sections 280G or 4999 of the IRC is applicable and such reduction would place the participant in a better net after tax position.

Voluntary Termination; Retirement. Our equity award agreements generally provide that an executive forfeits unvested awards if he or she voluntarily terminates employment. RSUs and PSUs generally vest on a *pro rata* basis upon involuntary termination other than for cause. RSUs, PSUs and stock options generally continue to vest following a qualifying retirement as if the employee had remained employed until the end of the performance period. If the recipient is terminated by the Company without cause or voluntarily resigns, the recipient is entitled to exercise all stock options outstanding and exercisable within a specified time frame after such termination.

Explanation of Tabular Disclosure. The following table presents potential payouts to our named executives at year-end upon termination of employment in the circumstances indicated pursuant to the terms of applicable plans and agreements. The payouts set forth below assume the triggering event indicated occurred on December 31, 2021, when the closing price of our Common Stock was $166.90 per share. These payouts are calculated for SEC disclosure purposes and are not necessarily indicative of the actual amounts the named executive would receive. Please note the following when reviewing the payouts set forth below:

- The compensation component set forth below for accelerated vesting of stock options is comprised of the unvested stock options granted in 2019, 2020 and 2021, based on the difference between the closing price of our Common Stock on December 31, 2021 and the exercise price of those options.
- For purposes of calculating the payout of performance share unit awards outstanding as of December 31, 2021, we have assumed that target performance was achieved; actual performance share unit payouts will be based on actual performance of the Company during the performance period.
- For purposes of calculating the payout upon the "double trigger" of change in control and subsequent involuntary termination not for cause, the value of the performance share unit replacement award is equal to the number of PSUs that would be forfeited based on the prorated acceleration of the PSUs, multiplied by the closing price of our Common Stock on December 31, 2021.
- The payout for continuation of benefits is an estimate of the cost the Company would incur to continue those benefits.
- The Company's practice is to provide all benefits eligible employees with life insurance that pays one times annual base salary upon death. The insurance benefit is a payment by an insurance company, not the Company, and is payable under the terms of the insurance policy.
- Refer to the Nonqualified Deferred Compensation in 2021 table above for aggregate balances payable to the named executives under our 409A Deferral Plan pursuant to the named executive's distribution elections.

Potential Consideration Upon Termination of Employment

	Mr. Fish	Ms. Rankin	Mr. Morris	Mr. Boettcher	Ms. Hemmer
Payout or Value of Compensation Components, in dollars					
In Event of Death or Disability					
• Accelerated vesting of stock options	12,525,134	3,254,160	3,573,130	2,072,974	2,663,567
• Payment of PSUs (contingent on actual performance at end of performance period)	18,783,260	4,666,524	5,121,493	2,957,134	3,811,996
• Accelerated vesting of RSUs	—	—	—	732,023	—
• Life insurance benefit paid by insurance company (in the case of death)	1,175,000	689,000	716,000	636,000	576,000
Total	**32,483,394**	**8,609,684**	**9,410,623**	**6,398,131**	**7,051,563**
In Event of Termination Without Cause by the Company or For Good Reason by the Employee					
• Two times base salary plus target annual cash bonus (one-half payable in lump sum; one-half payable in bi-weekly installments over a two-year period)	6,500,000	2,816,988	2,927,416	2,275,011	2,237,660
• Continued coverage under health and welfare benefit plans for two years	28,416	28,416	28,416	28,416	28,416
• Prorated payment of PSUs (contingent on actual performance at end of performance period)	9,203,645	2,291,203	2,516,407	1,463,936	1,877,625
• Prorated vesting of RSUs	—	—	—	204,967	—
Total	**15,732,061**	**5,136,607**	**5,472,239**	**3,972,330**	**4,143,701**
In Event of Termination Without Cause by the Company or For Good Reason by the Employee Six Months Following a Change in Control (Double Trigger)					
• Two times base salary plus target annual cash bonus (one-half payable in lump sum; one-half payable in bi-weekly installments over a two-year period)	6,500,000	2,816,988	2,927,416	2,275,011	2,237,660
• Continued coverage under health and welfare benefit plans for two years	28,416	28,416	28,416	28,416	28,416
• Accelerated vesting of stock options	12,525,134	3,254,160	3,573,130	2,072,974	2,663,567
• Prorated accelerated payment of PSUs	9,203,645	2,291,203	2,516,407	1,463,936	1,877,625
• Accelerated payment of PSUs replacement grant	9,579,615	2,375,321	2,605,086	1,493,199	1,934,371
• Accelerated vesting of RSUs	—	—	—	732,023	—
• Prorated annual cash bonus[(1)]	3,900,000	1,408,494	1,463,708	975,005	529,972
Total	**41,736,810**	**12,174,582**	**13,114,163**	**9,040,564**	**9,271,611**

(1) Pursuant to the Severance Protection Plan, Ms. Hemmer receives a prorated target annual cash bonus under this scenario. Mr. Fish, Ms. Rankin, Mr. Morris and Mr. Boettcher receive a prorated maximum annual cash bonus under this scenario pursuant to their 2017 Employment Agreements. The 2017 Employment Agreements provided for this enhanced treatment partially on account of similar terms in pre-existing employment agreements that executives were agreeing to terminate in order to support the Company's transition toward a more standardized and flexible approach to severance protections.

Chief Executive Officer Pay Ratio

In 2022, we reconducted our analysis to identify the Company's median employee, based on total annual compensation for all employees other than our Chief Executive Officer, in accordance with SEC Regulation S-K, Item 402(u) (the "Median Employee"). To select the Median Employee, we determined the actual taxable compensation paid to each listed employee in 2021, converted to U.S. dollars at appropriate exchange rates for non-U.S. employees, and annualized for salaried employees hired during the year. We did not apply any cost-of-living adjustments nor did we use any form of statistical sampling. The Median Employee, a Senior Technician in the U.S., was identified from a list of Company employees as of December 31, 2021. Out of a total worldwide employee population of 48,687 on that date, the list included 47,617 employees and excluded the Chief Executive Officer and our 1,069 employees based in India. Approximately 95.7% of these total employees work in the U.S. and approximately 4.3% work in Canada. Over 99% of these individuals are full-time employees. Any temporary or seasonal employees are included; any subcontracted workers are not employees and are excluded. For 2021, total annual compensation for the Median Employee was $80,744. The annual compensation of our Chief Executive Officer was $13,057,363, for a ratio of 1:162. These values were calculated in accordance with SEC Regulation S-K, Item 402(c)(2)(x) requirements for reporting total compensation in the Summary Compensation Table.

Equity Compensation Plan Table

The following table provides information as of December 31, 2021 about the number of shares to be issued upon vesting or exercise of equity awards and shares remaining available for issuance under our equity compensation plans.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options and Rights	Weighted-Average Exercise Price of Outstanding Options and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity compensation plans approved by security holders(1)	4,717,856(2)	$92.53(3)	19,587,918(4)

(1) Includes our 2009 Stock Incentive Plan, 2014 Stock Incentive Plan and Employee Stock Purchase Plan ("ESPP"). No additional awards may be granted under our 2009 Stock Incentive Plan.

(2) Includes: options outstanding for 3,206,076 shares of Common Stock; 201,098 shares of Common Stock to be issued in connection with deferred compensation obligations; 342,860 shares underlying unvested RSUs and 967,822 shares of Common Stock that would be issued on account of outstanding PSUs if the target performance level is achieved. Assuming, instead, that the maximum performance level was achieved on such PSUs, the amount of Common Stock that would be issued on account of outstanding awards would increase by 967,822 shares.

The total number of shares subject to outstanding awards in the table above includes 346,402 shares on account of PSUs, at target, with the performance period ended December 31, 2021. The determination of achievement of performance results on such PSUs was performed by the MD&C Committee in February 2022, and the Company achieved (a) maximum performance criteria on the Cash Flow PSUs, yielding a 200% payout and (b) above target performance criteria on the TSR PSUs, yielding a 167.78% payout. A total of 420,888 shares of Common Stock were issued on account of such PSUs in February 2022, net of units deferred, of which 228,582 shares of Common Stock were included in the first column of the table above.

Excludes purchase rights that accrue under the ESPP. Purchase rights under the ESPP are considered equity compensation for accounting purposes; however, the number of shares to be purchased is indeterminable until the time shares are actually issued, as automatic employee contributions may be terminated before the end of an offering period and, due to the look-back pricing feature, the purchase price and corresponding number of shares to be purchased is unknown.

(3) Excludes PSUs and RSUs because those awards do not have exercise prices associated with them. Also excludes purchase rights under the ESPP for the reasons described in note (2) above.

(4) The shares remaining available include 2,724,119 shares under our ESPP and 16,863,799 shares under our 2014 Stock Incentive Plan, assuming payout of PSUs at maximum. Assuming payout of PSUs at target, the number of shares remaining available for issuance under our 2014 Stock Incentive Plan would be 17,831,621.

RATIFICATION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

(ITEM 2 ON THE PROXY CARD)

Our Board of Directors, upon the recommendation of the Audit Committee, has ratified the selection of Ernst & Young LLP to serve as our independent registered public accounting firm for fiscal year 2022, subject to ratification by our stockholders. Representatives of Ernst & Young LLP will attend the virtual Annual Meeting. They will be able to make a statement if they want, and will be available to answer appropriate questions submitted by stockholders during the virtual Annual Meeting.

Although ratification of the selection of Ernst & Young LLP is not required by our By-laws or otherwise, we are submitting the selection to stockholders for ratification because we value our stockholders' views on our independent registered public accounting firm and as a matter of good governance. If our stockholders do not ratify our selection, it will be considered a direction to our Board and Audit Committee to consider selecting another firm. Even if the selection is ratified, the Audit Committee may, in its discretion, select a different independent registered public accounting firm, subject to ratification by the Board, at any time during the year if it determines that such a change is in the best interests of the Company and our stockholders.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FEE INFORMATION

Fees for professional services provided by our independent registered public accounting firm in each of the last two fiscal years, in each of the following categories, were as follows:

	2021	2020
	(In millions)	
Audit Fees	**$5.9**	**$6.2**
Audit-Related Fees	**0.3**	**—**
Tax Fees	**—**	**—**
All Other Fees	**—**	**—**
Total	**$6.2**	**$6.2**

Audit fees include fees for the annual audit, reviews of the Company's Quarterly Reports on Form 10-Q, work performed to support the Company's debt issuances, accounting consultations, and separate subsidiary audits required by statute or regulation. Audit-related fees also include services relating to the implementation of the Company's new enterprise resource planning system.

The Audit Committee has adopted procedures for the approval of Ernst & Young LLP's services and related fees. At the beginning of each year, all audit and audit-related services, tax fees and other fees for the upcoming audit are provided to the Audit Committee for approval. The services are grouped into significant categories and provided to the Audit Committee in the format shown above. All projects that have the potential to exceed $100,000 are separately identified and reported to the Committee for approval. The Audit Committee Chairman has the authority to approve additional services, not previously approved, between Committee meetings. Any additional services approved by the Audit Committee Chairman between Committee meetings are reported to the full Audit Committee at the next regularly scheduled meeting. The Audit Committee is updated on the status of all services and related fees at every regular meeting. In 2021 and 2020, the Audit Committee or Audit Committee Chairman pre-approved all audit and audit-related services performed by Ernst & Young LLP. As set forth in the Audit Committee Report, the Audit Committee has considered whether the provision of these audit-related services is compatible with maintaining auditor independence and has determined that it is.

VOTE REQUIRED FOR APPROVAL

Approval of this proposal requires the affirmative vote of the holders of a majority of the outstanding shares of Common Stock present at the meeting, in person or represented by proxy, and entitled to vote.

FOR ✓

THE BOARD OF DIRECTORS RECOMMENDS THAT YOU VOTE FOR THE RATIFICATION OF ERNST & YOUNG LLP AS THE COMPANY'S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR FISCAL YEAR 2022.

ADVISORY VOTE ON EXECUTIVE COMPENSATION

(ITEM 3 ON THE PROXY CARD)

Pursuant to Section 14A of the Exchange Act, stockholders are entitled to an advisory (non-binding) vote on compensation programs for our named executive officers (sometimes referred to as "say on pay"). The Board of Directors has determined that it will include this "say on pay" vote in the Company's proxy materials annually, pending consideration of future advisory stockholder votes on the frequency of this advisory vote on executive compensation.

We encourage stockholders to review the *Compensation Discussion and Analysis* and the *Executive Compensation Tables* on pages 23 to 48 of this Proxy Statement. The Company has designed its executive compensation program to be supportive of, and align with, the strategy of the Company and the creation of stockholder value, while discouraging excessive risk-taking. The following key structural elements and policies, discussed in more detail in the *Compensation Discussion and Analysis*, further the objective of our executive compensation program and evidence our dedication to competitive and reasonable compensation practices that are in the best interests of stockholders:

- a significant majority of our named executive's target compensation is linked to Company performance and long-term equity awards, which aligns executives' interests with those of stockholders;
- our total direct compensation opportunities for named executive officers are targeted to fall in a range around the competitive median;
- performance-based awards include threshold, target and maximum payouts correlating to a range of performance outcomes and are based on a variety of indicators of performance, which limits risk-taking behavior;
- performance stock units with a three-year performance period, as well as stock options that vest over a three-year period, link executives' interests with long-term performance and reduce incentives to maximize performance in any one year;
- all of our executive officers are subject to stock ownership guidelines, which we believe demonstrates a commitment to, and confidence in, the Company's long-term prospects;
- the Company has clawback provisions in its equity award agreements and executive officer employment agreements, and has adopted a clawback policy applicable to annual incentive compensation, designed to recoup compensation when cause and/or misconduct are found; and
- the Company has adopted policies that limit executive officer severance benefits and prohibit it from entering into agreements with executive officers that provide for certain death benefits or tax gross-up payments.

The Board strongly endorses the Company's executive compensation program and recommends that the stockholders vote in favor of the following resolution:

RESOLVED, that the compensation of the Company's named executive officers as described in this Proxy Statement under "Executive Compensation," including the *Compensation Discussion and Analysis* and the tabular and narrative disclosure contained in this Proxy Statement, is hereby APPROVED.

VOTE REQUIRED FOR APPROVAL

Approval of this proposal requires the affirmative vote of the holders of a majority of the outstanding shares of Common Stock present at the meeting, in person or represented by proxy, and entitled to vote. Because the vote is advisory, it will not be binding, and neither the Board nor the MD&C Committee will be required to take any action as a result of the outcome of the vote on this proposal. The MD&C Committee will carefully consider the outcome of the vote in connection with future executive compensation arrangements.

FOR ✓	**THE BOARD RECOMMENDS THAT YOU VOTE TO APPROVE THE COMPANY'S EXECUTIVE COMPENSATION.**

STOCKHOLDER PROPOSAL

(ITEM 4 ON THE PROXY CARD)

The following proposal was submitted by the International Brotherhood of Teamsters General Fund, 25 Louisiana Avenue, NW, Washington, DC 20001, which owns 143 shares of Waste Management, Inc. Common Stock. The proposal has been included verbatim as we received it. ***Waste Management is not responsible for the content of this stockholder proposal or supporting statement.***

STOCKHOLDER PROPOSAL

RESOLVED that shareholders of Waste Management, Inc. ("Waste Management"), urge the Board of Directors to oversee a third-party audit analyzing the adverse impact of Waste Management's policies and practices on the civil rights of company stakeholders, above and beyond legal and regulatory matters, and to provide recommendations for improving the company's civil rights impact. Input from civil rights organizations, employees, customers, and other stakeholders should be considered in determining the specific matters to be analyzed. A report on the audit, prepared at reasonable cost and omitting confidential or proprietary information, should be publicly disclosed on Waste Management's website.

SUPPORTING STATEMENT:

Recently, the racial justice movement together with the disproportionate impacts of the COVID- 19 pandemic have focused the public's and policy makers' attention on civil rights and gender and racial equity issues. In response to the racial justice protests in June 2020, Waste Management's CEO stated that "Waste Management's family stand united against racism." Inclusion, equity, and diversity (IE&D) is also a fundamental value and part of the company's code of conduct.

While the company states IE&D is a fundamental value, its policies and practices fail to reflect this statement. Waste Management's workforce is 22% Hispanic, 19% Black, and 18% women according to its latest diversity report (2020 data). Yet only 11% of executives are considered ethnically diverse. Further, based on 2019 data (the latest year for which Waste Management broke out the category), nearly half of the jobs held by women are in "administrative support," while 79% of executive and management level positions are held by men. Though the company has a goal of increasing representation of women overall and minorities in all segments of the business by 2025, it is unclear how Waste Management is evaluating the effectiveness of these programs given there does not appear to be concrete metrics attached.

Lending urgency to an audit is the recent suggestion by company management that immigrants are good candidates for alleviating the industry's perceived driver shortage.[1] Targeting immigrants to fill high-paying, stable jobs could help ameliorate inequalities. However, immigrants, especially those of color, are among the most vulnerable and easily exploitable populations. A PBS NewsHour report noted, "Immigrants perform some of America's lowest-paying, arduous jobs, and are among those most victimized by employers failing to pay them fairly."[2]

The civil rights impact of Waste Management's facilities and services also warrant further evaluation. The company disclosed that the majority of people living within one kilometer of its facilities are non-white. While the company is providing greater transparency on its environmental justice footprint, it does not appear to have objectively evaluated how this data could be used to address the disproportionate impact of its facilities on the public health and economic equality of communities of color.

We urge shareholders to vote FOR this proposal.

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1 https://www.wastedive.com/news/waste-expo-labor-shortage-incarcerated-worker-opportunities/602638/
2 https://www.pbs.org/newshour/economy/wage-theft-hits-immigrants-hard

WASTE MANAGEMENT RESPONSE TO STOCKHOLDER PROPOSAL

The Board recommends that stockholders vote AGAINST this proposal.

Waste Management appreciates the proponent's investment in our Company and the direct engagement with the proponent via video calls and emails in response to their stockholder proposal. We respect the request for a civil rights audit and understand the critical importance of racial and gender equity and environmental justice. Inclusion, equity &

diversity are fundamental values at Waste Management, and we are committed to our work in these areas. We encourage stockholders to review our 2021 Sustainability Report at https://sustainability.wm.com to learn more about our people-first culture and progress embedding inclusion, equity and diversity across our Company. (Neither our 2021 Sustainability Report, nor any information available at https://sustainability.wm.com, constitutes a part of, or is incorporated by reference into, this Proxy Statement or any report filed with the SEC.)

We are proud of the work done so far, and we know that future progress will require on-going efforts, long-term focus and dedication. In particular, Waste Management has two substantial initiatives currently in-progress that we expect to yield notable results to be publicly-disclosed in 2022; those initiatives include:

- In 2021, our Company engaged the consulting services arm of one of the big four accounting firms to conduct a substantial assessment of Waste Management's ESG goals and progress against them and assist in setting new goals. This effort includes review of our Company's prior and current practices, goals and materiality assessments; benchmarking against competitors and leaders; review of customer and investor expectations; consideration of opportunities, risks, barriers and future developments; development of a ESG goal-setting framework and new ESG goals (including a Science-Based Target for greenhouse gas emissions, as well as social/ workforce goals); preparation of a roadmap for each goal, including programs/policies, communication strategies and delivery costs; and documentation of a process to analyze results. Waste Management's new ESG goals resulting from this process will be announced in 2022.
- Waste Management has long been focused on environmental justice and the relationship between our facilities and their communities. In 2021, we undertook efforts to further this understanding with the development of a new environmental justice mapping tool in response to specific investor inquiries to be able to see all Waste Management facilities on a map, linking to the EPA's publicly available EJ mapping tool. The results of these efforts are being updated in our ESG Hub on our sustainability website as they are completed. After doing the extensive data gathering and input necessary in 2021 to develop the new EJ mapping tool, we are evaluating additional ways the tool might be used to provide information regarding Waste Management's footprint and community impact.

The completion of these two projects in 2022, as well as other on-going activities discussed in our Sustainability Report, will provide substantial advancement, and a more clear and measurable understanding, of our Company's social and environmental justice commitments. For this reason, we believe the best course of action for 2022 is to continue our work-in-progress to which our people and resources are already dedicated, and to allow this work to inform our next steps. We believe that undertaking a civil rights audit in 2022 could disrupt, delay and divert attention and important resources from the goal-setting work that is already underway, as well as hinder the execution of the audit. Additionally, with racial equity audits and civil rights audits being relatively new initiatives, we also believe that it would be beneficial to our future consideration of such an undertaking to allow additional companies, and auditors, to gain experience about the best methodology, process and scope for such an audit. Accordingly, our Board recommends a vote against this stockholder proposal.

Additionally, through the course of direct engagement with the proponent, we gathered internal ESG leaders to discuss other specific inquiries raised. In response to a particular follow-up inquiry from the proponent about the use of prison-labor, we were pleased to report, and update our internal policies to reflect, that Waste Management does not use forced labor or prison-labor in the performance of any work.

VOTE REQUIRED FOR APPROVAL

If this proposal is properly presented at the meeting, approval requires the affirmative vote of the holders of a majority of the outstanding shares of Common Stock present at the meeting, in person or represented by proxy, and entitled to vote.

AGAINST ✕	**THE BOARD RECOMMENDS THAT YOU VOTE AGAINST THIS PROPOSAL.**

OTHER MATTERS

The Company does not intend to bring any other matters before the Annual Meeting, nor does the Company have any present knowledge that any other matters will be presented by others for action at the meeting. If any other matters are properly presented, your proxy card authorizes the people named as proxy holders to vote using their judgment.

Form 10-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

(Mark One)

☑ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2021

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 1-12154

Waste Management, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**73-1309529**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
800 Capitol Street **Suite 3000** **Houston, Texas**	**77002**
(Address of principal executive offices)	*(Zip code)*

Registrant's telephone number, including area code:
(713) 512-6200

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $0.01 par value	WM	New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined by Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulations S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☑	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☑

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2021 was approximately $58.9 billion. The aggregate market value was computed by using the closing price of the common stock as of that date on the New York Stock Exchange ("NYSE"). (For purposes of calculating this amount only, all directors and executive officers of the registrant have been treated as affiliates.)

The number of shares of Common Stock, $0.01 par value, of the registrant outstanding as of February 9, 2022 was 414,586,718 (excluding treasury shares of 215,695,743).

DOCUMENTS INCORPORATED BY REFERENCE

Document	Incorporated as to
Proxy Statement for the 2022 Annual Meeting of Stockholders	Part III

TABLE OF CONTENTS

PART I

Item 1. *Business.*

General

Waste Management, Inc. is a holding company and all operations are conducted by its subsidiaries. When the terms “the Company,” “we,” “us” or “our” are used in this document, those terms refer to Waste Management, Inc., its consolidated subsidiaries and consolidated variable interest entities. When we use the term “WMI,” we are referring only to Waste Management, Inc., the parent holding company.

WMI was incorporated in Oklahoma in 1987 under the name “USA Waste Services, Inc.” and was reincorporated as a Delaware company in 1995. In a 1998 merger, the Illinois-based waste services company formerly known as Waste Management, Inc. became a wholly-owned subsidiary of WMI and changed its name to Waste Management Holdings, Inc. (“WM Holdings”). At the same time, our parent holding company changed its name from USA Waste Services to Waste Management, Inc. Like WMI, WM Holdings is a holding company and all operations are conducted by subsidiaries.

Our principal executive offices are located at 800 Capitol Street, Suite 3000, Houston, Texas 77002. Our telephone number is (713) 512-6200. Our website address is www.wm.com. Our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K are all available, free of charge, on our website as soon as practicable after we file the reports with the SEC. Our stock is traded on the New York Stock Exchange under the symbol “WM.”

We are North America’s leading provider of comprehensive waste management environmental services, providing services throughout the United States (“U.S.”) and Canada. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. Our “Solid Waste” business is operated and managed locally by our subsidiaries that focus on distinct geographic areas and provide collection, transfer, disposal, and recycling and resource recovery services. Through our subsidiaries, we are also a leading developer, operator and owner of landfill gas-to-energy facilities in the U.S. During 2021, our largest customer represented less than 5% of annual revenues. We employed approximately 48,500 people as of December 31, 2021.

We own or operate 260 landfill sites, which is the largest network of landfills throughout the U.S. and Canada. In order to make disposal more practical for larger urban markets, where the distance to landfills is typically farther, we manage 340 transfer stations that consolidate, compact and transport waste efficiently and economically. We also use waste to create energy, recovering the gas produced naturally as waste decomposes in landfills and using the gas in generators to make electricity. We are a leading recycler in the U.S. and Canada, handling materials that include cardboard, paper, glass, plastic and metal. We provide cost-efficient, environmentally sound recycling programs for municipalities, businesses and households across the U.S. and Canada as well as other services that supplement our Solid Waste business.

Our Company’s goals are targeted at putting our people first, positioning them to serve and care for our customers, the environment, the communities in which we work and our stockholders. Increasingly, our industry-leading focus on environmental sustainability aligns with demand from our customers who want more of their waste materials recovered. Waste streams are becoming more complex, and our aim is to address current needs, while anticipating the expanding and evolving needs of our customers.

We believe we are uniquely equipped to meet the challenges of the changing waste industry and our customers’ waste management needs, both today and as we work together to envision and create a more sustainable future. As the waste industry leader, we have the expertise necessary to collect and handle our customers’ waste efficiently and responsibly by delivering environmental performance — maximizing resource value, while minimizing environmental impact — so that both our economy and our environment can thrive.

Our fundamental strategy has not changed; we remain dedicated to providing long-term value to our stockholders by successfully executing our core strategy of focused differentiation and continuous improvement. As North America’s leading provider of comprehensive waste management environmental services, sustainability and environmental stewardship is embedded in all that we do. We have enabled a people-first, technology-led focus to drive our mission, that we are always working for a sustainable tomorrow. Our strategy leverages and sustains the strongest asset network in the industry to drive best in class customer experience and growth. Our strategic planning processes appropriately consider that the future of our business and the industry can be influenced by changes in economic conditions, the competitive landscape, the regulatory environment, asset and resource availability and technology. We believe that focused differentiation, which is driven by capitalizing on our unique and extensive network of assets, will deliver profitable growth and position us to leverage competitive advantages. Simultaneously, we believe the combination of cost control, enhancements to our digital platform, process improvement and operational efficiency will deliver on the Company's strategy of continuous improvement and yield an attractive total cost structure and enhanced service quality. While we continue to improve existing diversion technologies, such as through investments in our recycling operations, we are also evaluating and pursuing emerging diversion technologies that may generate additional value.

We believe that execution of our strategy will deliver shareholder value and leadership in a dynamic industry and challenging economic environment. In addition, we intend to continue to return value to our stockholders through dividend payments and our common stock repurchase program. In December 2021, we announced that our Board of Directors expects to increase the quarterly dividend from $0.575 to $0.65 per share for dividends declared in 2022, which is a 13.0% increase from the quarterly dividends we declared in 2021. This is an indication of our ability to generate strong and consistent cash flows and marks the 19th consecutive year of dividend increases. All quarterly dividends will be declared at the discretion of our Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans, growth and acquisitions and other factors the Board of Directors may deem relevant.

Operations

General

In 2021, our senior management began evaluating, overseeing and managing the financial performance of our Solid Waste operations through two operating segments. Our East Tier primarily consists of geographic areas located in the Eastern U.S., the Great Lakes region and substantially all of Canada. Our West Tier primarily includes geographic areas located in the Western U.S., including the upper Midwest region, and British Columbia, Canada. Each of our Solid Waste operating segments provides integrated environmental services, including collection, transfer, recycling, and disposal. The Company finalized the assessment of our segments during the fourth quarter of 2021. The East and West Tiers are presented in this report and constitute our existing Solid Waste business. On October 30, 2020, we acquired Advanced Disposal Services, Inc. ("Advanced Disposal"), the operations of which are presented in this report within our existing Solid Waste tiers. Additional information related to our acquisition of Advanced Disposal and segments is included in Notes 17 and 19 to the Consolidated Financial Statements, respectively. We also provide expanded service offerings and solutions that are not managed through our Solid Waste business, as described below. These operations are presented in this report as "Other." The services we provide are described below.

Collection. Our commitment to customers begins with a vast waste collection network. Collection involves picking up and transporting waste and recyclable materials from where it was generated to a transfer station, material recovery facility ("MRF") or disposal site. We generally provide collection services under one of two types of arrangements:

- For commercial and industrial collection services, typically we have three-year service agreements. The fees under the agreements are influenced by factors such as collection frequency, type of collection equipment we furnish, type and volume or weight of the waste collected, distance to the disposal facility, labor costs, cost of disposal and general market factors. As part of the service, we provide steel containers to most customers to store their solid waste between pick-up dates. Containers vary in size and type according to the needs of our customers and the restrictions of their communities. Many are designed to be lifted mechanically and either emptied into a truck's compaction hopper or directly into a disposal site. By using these containers, we can service most of our commercial and industrial customers with trucks operated by only one employee.

- For most residential collection services, we have a contract with, or a franchise granted by, a municipality, homeowners' association or some other regional authority that gives us the exclusive right to service all or a portion of the homes in an area. These contracts or franchises are typically for periods of three to ten years. We also provide services under individual monthly subscriptions directly to households. The fees for residential collection are either paid by the municipality or authority from their tax revenues or service charges, or are paid directly by the residents receiving the service. The Company is generally phasing out traditional manual systems and moving to further automate residential collection services. Benefits of automation include enhanced worker safety, improved service delivery to the customer and an overall reduction in the cost to provide services.

Landfill. Landfills are the main depositories for solid waste in North America. As of December 31, 2021, we owned or operated 255 solid waste landfills and five secure hazardous waste landfills, which represents the largest network of landfills throughout the U.S. and Canada. Solid waste landfills are constructed and operated on land with engineering safeguards that limit the possibility of water and air pollution, and are operated under procedures prescribed by regulation. A landfill must meet federal, state or provincial, and local regulations during its design, construction, operation and closure. The operation and closure activities of a solid waste landfill include excavation, construction of liners, continuous spreading and compacting of waste, covering of waste with earth or other acceptable material and constructing final capping of the landfill. These operations are carefully planned to maintain environmentally safe conditions and to maximize the use of the airspace.

All solid waste management companies must have access to a disposal facility, such as a solid waste landfill. The significant capital requirements of developing and operating a landfill serve as a barrier to landfill ownership and, thus, third-party haulers often dispose of waste at our landfills. It is usually preferable for our collection operations to use disposal facilities that we own or operate, a practice we refer to as internalization, rather than using third-party disposal facilities. Internalization generally allows us to realize higher consolidated margins and stronger operating cash flows. The fees charged at disposal facilities, which are referred to as tipping fees, are based on several factors, including our cost to construct, maintain and close the landfill, the distance to an alternative disposal facility, the type and weight or volume of solid waste deposited and competition.

Under environmental laws, the federal government (or states with delegated authority) must issue permits for all hazardous waste landfills. All of our hazardous waste landfills have obtained the required permits, although some can accept only certain types of hazardous waste. These landfills must also comply with specialized operating standards. Only hazardous waste in a stable, solid form, which meets regulatory requirements, can be deposited in our secure disposal cells. In some cases, hazardous waste can be treated before disposal. Generally, these treatments involve the separation or removal of solid materials from liquids and chemical treatments that transform waste into inert materials that are no longer hazardous. Our hazardous waste landfills are sited, constructed and operated in a manner designed to provide long-term containment of waste. We also operate a hazardous waste facility at which we isolate treated hazardous waste in liquid form by injection into deep wells that have been drilled in certain acceptable geologic formations far below the base of fresh water to a point that is safely separated by other substantial geological confining layers.

Transfer. As of December 31, 2021, we owned or operated 340 transfer stations in the U.S. and Canada. We deposit waste at these stations, as do other waste haulers. The solid waste is then consolidated and compacted to reduce the volume and increase the density of the waste and transported by transfer trucks or by rail to disposal sites.

Access to transfer stations is critical to haulers who collect waste in areas not in close proximity to disposal facilities. Fees charged to third parties at transfer stations are usually based on the type and volume or weight of the waste deposited at the transfer station, the distance to the disposal site, market rates for disposal costs and other general market factors.

The utilization of our transfer stations by our own collection operations improves internalization by allowing us to retain fees that we would otherwise pay to third parties for the disposal of the waste we collect. It enables us to manage costs associated with waste disposal because (i) transfer trucks, railcars or rail containers have larger capacities than collection trucks, allowing us to deliver more waste to the disposal facility in each trip; (ii) waste is accumulated and compacted at transfer stations that are strategically located to increase the efficiency of our network of operations and (iii) we can retain the volume by managing the transfer of the waste to one of our own disposal sites.

The transfer stations that we operate but do not own generally are operated through lease agreements under which we lease property from third parties. There are some instances where transfer stations are operated under contract, generally for municipalities. In most cases, we own the permits and will be responsible for any regulatory requirements relating to the operation and closure of the transfer station.

Recycling. Our recycling operations provide communities and businesses with an alternative to traditional landfill disposal and support our strategic goals to extract more value from the materials we manage. We were the first major solid waste company to focus on residential single-stream recycling, which allows customers to mix clean bottles, cans, paper and cardboard in one bin. Residential single-stream programs have greatly increased the recycling volumes. Single-stream recycling is possible through the use of various mechanized screens and optical sorting technologies. In 2021, we made significant investments in technology to automate our equipment, which benefits our labor productivity, produce higher quality commodities for our customers, and increase our capacity in geographies where we currently have a MRF, as well as expanding our footprint into new geographies. In addition to advancing our single stream recycling programs for commercial applications, we will continue to invest in recycling technologies designed to offer services and solutions to support and grow our current operations. Recycling involves the separation of reusable materials from the waste stream for processing and resale or other disposition. Our recycling operations include the following:

Materials processing — Through our collection operations and third-party customer base, we collect recyclable materials from residential, commercial and industrial customers and direct these materials to one of our MRFs for processing. As of December 31, 2021, we operated 96 MRFs, of which 49 are single stream, where cardboard, paper, glass, metals, plastics, construction and demolition materials and other recycling commodities are recovered for resale or redirected for other purposes.

Recycling commodities — We market and resell recycling commodities globally. We manage the marketing of recycling commodities that are processed in our facilities by maintaining comprehensive service centers that continuously analyze market prices, logistics, market demands and product quality.

Recycling brokerage services — We also provide recycling brokerage services, which involve managing the marketing of recyclable materials for third parties. The experience of our recycling operations in managing recycling commodities for our own operations gives us the expertise needed to effectively manage volumes for third parties. Utilizing the resources and knowledge of our recycling operations' service centers, we can assist customers in marketing and selling their recycling commodities with minimal capital requirements.

The recyclable materials processed in our MRFs are received from various sources, including third parties and our own operations. In recent years, we have been focused on reducing dependency on market prices for recycled commodities by recovering our processing costs first. In our materials processing business, we have been transitioning our customer base over time from the traditional rebate model, where we paid suppliers for the inbound material, to a fee-for-service model that ensures the cost of processing the recyclable materials is covered along with an acceptable margin. With our current fee-for-service model, the pricing for these recyclable materials can either be a charge or "tip fee" when commodity pricing does not cover our cost to process the recyclable materials or a "rebate" when commodity pricing is higher than our processing costs and we are able to share this benefit with the customers generating recyclable materials. In some cases, our pricing is based on fixed contractual rates or on defined minimum per-ton rates. Generally, this pricing also considers the price we receive for sales of processed goods, market conditions and transportation costs. As a result, changes in commodity prices for recycled materials also significantly affect the pricing to our suppliers. Depending on the key terms of the arrangement, these "rebates" are recorded as either operating expenses or a reduction in operating revenues within our Consolidated Statements of Operations. If the key terms result in a charge to the customer, the associated "tip fees" would be recorded as operating revenues within our Consolidated Statements of Operations.

Other. Other services we provide include the following:

Although many waste management services such as collection and disposal are local services, our Strategic Business Solutions ("WMSBS") business works with customers whose locations span the U.S. and Canada. Our strategic accounts program provides centralized customer service, billing and management of accounts to streamline the administration of customers' waste management needs across multiple locations.

Our Energy and Environmental Services ("EES") business offers our customers a variety of services in collaboration with our Area and strategic accounts programs, including (i) construction and remediation services; (ii) services associated with the disposal of fly ash, which is residue generated from the combustion of coal, and other fuel stocks; (iii) in-plant services, where our employees work full-time inside our customers' facilities to provide full-service waste management solutions and consulting services (this service is managed through our EES business but reflected principally in our collection line of business) and (iv) specialized disposal services for oil and gas exploration and production operations (revenues for this service are also reflected principally in our collection line of business). Our vertically integrated waste management operations enable us to provide customers with full management of their waste. The breadth of our service offerings and the familiarity we have with waste management practices gives us the unique ability to assist customers in minimizing the amount of waste they generate, identifying recycling opportunities, determining the most efficient means available for waste collection and disposal and ensuring that disposal is achieved in a manner that is both reflective of the current regulatory environment and environmentally friendly.

We develop, operate and promote projects for the beneficial use of landfill gas through our WM Renewable Energy business. Landfill gas is produced naturally as waste decomposes in a landfill. The methane component of the landfill gas is a readily available, renewable energy source that can be gathered and used beneficially as an alternative to fossil fuel. The U.S. Environmental Protection Agency ("EPA") endorses landfill gas as a renewable energy resource, in the same category as wind, solar and geothermal resources. As of December 31, 2021, we had 144 landfill gas beneficial use projects producing commercial quantities of methane gas at owned or operated landfills. For 102 of these projects, the processed gas is used to fuel electricity generators. The electricity is then sold to public utilities, municipal utilities or power cooperatives. For 16 of these projects, the landfill gas is processed to pipeline-quality natural gas and then sold to natural gas suppliers. For 26 of these projects, the gas is used at the landfill or delivered by pipeline to industrial customers as a direct substitute for fossil fuels in industrial processes.

WM Renewable Energy also produces renewable natural gas ("RNG") from landfill gas and generates renewable identification numbers ("RINs") under the Renewable Fuel Standard ("RFS") program and other credits under a variety of state programs associated with the use of RNG in our compressed natural gas fleet. The RINs and credits are sold to counterparties who are obligated under the regulatory programs and have a responsibility to procure RINs and credits proportionate to their fossil fuel production and imports. RINs prices generally respond to regulations enacted by the EPA or other regulatory bodies, as well as fluctuations in supply and demand. WM Renewable Energy currently has four owned facilities producing 3.2 million MMBtu of RNG annually and most of the revenue from these facilities is generated through the sale of RINs. We expect to grow the number of plants from four to 21 by 2026 and project that we will generate approximately 24 million MMBtu of RNG annually with the expanded asset base. While developing these facilities and expanding our renewable energy generation, we intend to evaluate various offtake arrangements, including the sale of RINs and the direct sale of RNG to large industrial users such as utilities and colleges and universities.

We provide expanded service offerings and solutions that are not managed through our Solid Waste business including the collection of project waste, including construction debris and household or yard waste, through our Bagster® business.

We continue to invest in businesses and technologies that are designed to offer services and solutions ancillary or supplementary to our current operations. While most of these investments are in the form of minority equity stakes, they can also include joint ventures, joint development agreements or majority equity stakes. The solutions and services include (i) waste collection, processing, and recycling; (ii) the development, operation and marketing of waste processing facilities and technologies; (iii) operation of renewable natural gas plants and (iv) the development and operation of organic recycling technologies. Furthermore, we continually scout, evaluate and run proof-of-concepts of innovative technologies within our core operations to improve safety, operational efficiencies and customer solutions.

Competition

We encounter intense competition from governmental, quasi-governmental and private sources in all aspects of our operations. We principally compete with large national waste management companies, counties and municipalities that maintain their own waste collection and disposal operations and regional and local companies of varying sizes and financial resources. The industry also includes companies that specialize in certain discrete areas of waste management, operators of alternative disposal facilities, companies that seek to use parts of the waste stream as feedstock for renewable energy and other by-products, and waste brokers that rely upon haulers in local markets to address customer needs.

Operating costs, disposal costs and collection fees vary widely throughout the geographic areas in which we operate. The prices that we charge are determined locally, and typically vary by volume and weight, type of waste collected, treatment requirements, risk of handling or disposal, frequency of collections, distance to final disposal sites, the availability of airspace within the geographic region, labor costs and amount and type of equipment furnished to the customer. We face intense competition in our Solid Waste business based on pricing and quality of service. We also compete for business based on breadth of service offerings. As companies, individuals and communities look for ways to be more sustainable, we are promoting our comprehensive services that go beyond our core business of collecting and disposing of waste in order to meet their needs.

Seasonal Trends

Our operating revenues tend to be somewhat higher in summer months, primarily due to higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends.

Service disruptions caused by severe storms, extended periods of inclement weather or climate events can significantly affect the operating results of the geographic areas affected. On the other hand, certain destructive weather and climate conditions, such as wildfires in the Western U.S. and hurricanes that most often impact our operations in the Southern and Eastern U.S. during the second half of the year, can increase our revenues in the geographic areas affected as a result of the waste volumes generated by these events. While weather-related and other event-driven special projects can boost revenues through additional work for a limited time, due to significant start-up costs and other factors, such revenue can generate earnings at comparatively lower margins.

Human Capital Resources

Employees

As of December 31, 2021, we had approximately 48,500 full-time employees across the U.S., Canada and India. Approximately 45,400 employees were located within the U.S. and 3,100 employees were located outside of the U.S. Approximately 9,200 employees were employed in administrative and sales positions with the remainder in operations. Approximately 8,500 of our employees are covered by collective bargaining agreements. Additional information about our workforce can be found in our 2021 Sustainability Report at https://sustainability.wm.com. Our 2021 Sustainability Report does not constitute a part of, and is not incorporated by reference into, this report or any other report we file with (or furnish to) the SEC, whether made before or after the date of this Annual Report on Form 10-K.

People First Commitment

Our Company is committed to People First, knowing that the daily contributions of our team members are what enable us to play a vital role in the communities we serve. Our success depends upon effective leadership, the contributions of each employee, and our ability to give them the tools they need to safely execute their roles as well as to develop and excel in their careers. As our industry and workforce evolve, we are focused on our imperatives of keeping our employees safe, improving diversity, equity, and inclusion at all levels of our Company, managing employee turnover and increasing retention and supporting ongoing cultural integration and knowledge transfer. We regularly focus on these objectives when managing our business.

We strive to be a workplace of choice through competitive pay, comprehensive benefits for long-term financial and personal health and opportunities for growth across our ranks. "We Are WM" is our Employer Value Proposition, grounded in our People First commitment and shared through a framework that enables us to display that we are (i) investing in our teams by providing comprehensive benefits; (ii) committed to the growth of our team by providing state-of-the-art trainings and our new education benefit, Your Tomorrow, as further discussed under *Compensation and Benefits*; (iii) performing essential and meaningful work and (iv) working for a sustainable tomorrow by leaving the world a better place than we found it. Being an employer of choice is critical to our efforts to attract and retain a high-quality workforce, while motivating us to sharpen our focus on our values that help us empower and develop good employees. By promoting from within and offering training opportunities, we help employees maximize their effectiveness and grow in their careers.

Safety as a Core Value

At the Company, safety is a core value, with no compromise. A large number of our employee population work as drivers, heavy equipment operators and sorters, which are essential jobs that carry inherent risks. For nearly 20 years, we have engaged employees on safety through our Mission to Zero ("M2Z") program. The "Zero" in M2Z represents zero tolerance for unsafe behaviors. Employees learn safety best practices through new-hire and ongoing training. To build upon lessons learned in training, we conduct structured observations of frontline employees that cover all aspects of our collection and post-collection operations, including driving, loading, unloading, lifting and lowering and arriving prepared for work.

Learning and Development

We offer expansive learning and development solutions to meet the development needs of our people and supporting opportunities for growth and improvement. Our talent management strategy is designed to reach employees at all levels. Given the wide variety of employee roles and skill sets in our Company, our training and development programs are varied but generally fall into the following categories: (i) compliance, including Code of Conduct and cybersecurity training; (ii) safety; (iii) environmental excellence; (iv) professional development and leadership and (v) job-specific.

Inclusion, Equity and Diversity

We embrace and cultivate respect, trust, open communications and diversity of thought and people. We are committed to equality for all, and foster an environment where all teammates feel welcomed, valued and seen. We are laser-focused on strengthening our current business strategy to see that inclusion, equity and diversity ("IE&D") are not an initiative, but core in everything that we do. Our commitment to IE&D starts at the top with our senior leadership team being comprised of 30% ethnic minorities and 30% women as of December 31, 2021; and with our overall workforce in the U.S. being comprised of approximately 45% ethnic minorities and approximately 19% women as of the same date. We are proud of what we have been able to achieve. To enable us to achieve our goals, we have established a cross-functional IE&D Council aimed at evaluating policies, practices and procedures, recruitment and partnerships to ensure that our IE&D efforts are sustainable and are tied to our business strategy.

Compensation and Benefits

The objective of our compensation and benefit programs is to attract, engage, reward and incentivize valuable employees who will support the successful execution of our strategy. We pay the full cost to provide employees with short-term disability benefits, long-term disability benefits, basic life insurance for the employee and their dependents, and employee and family assistance benefits. The costs for medical and dental coverage are shared with employees, with the Company paying for a majority of the premium expense. The Company offers other important benefits such as paid vacation and holidays, legal services, flexible spending accounts, dependent care assistance, adoption assistance, employee discounts and student loan refinancing services. We also recognize the value of learning beyond the workplace. In 2021, we announced a new education benefit, Your Tomorrow. Your Tomorrow was created in partnership with Guild Education to pay 100% of benefits-eligible employees' and dependents' tuition for a broad range of four-year college degree programs, as well as programs such as high-school equivalency and, for employees, other certificate programs and graduate degrees. We also provide plans to help employees save for their future; refer to Note 9 to the Consolidated Financial Statements for additional information on our employee benefit plans.

Financial Assurance and Insurance Obligations

Financial Assurance

Municipal and governmental waste service contracts generally require contracting parties to demonstrate financial responsibility for their obligations under the contract. Financial assurance is also a requirement for (i) obtaining or retaining disposal site or transfer station operating permits; (ii) supporting certain variable-rate tax-exempt debt and (iii) estimated final capping, closure, post-closure and environmental remedial obligations at many of our landfills. We establish financial assurance using surety bonds, letters of credit, insurance policies, trust and escrow agreements and financial guarantees. The type of assurance used is based on several factors, most importantly: the jurisdiction, contractual requirements, market factors and availability of credit capacity.

Surety bonds and insurance policies are supported by (i) a diverse group of third-party surety and insurance companies; (ii) an entity in which we have a noncontrolling financial interest or (iii) a wholly-owned insurance captive, the sole business of which is to issue surety bonds and/or insurance policies on our behalf. Letters of credit generally are supported by our long-term U.S. and Canadian revolving credit facility ("$3.5 billion revolving credit facility") and other credit lines established for that purpose.

Insurance

We carry a broad range of insurance coverages, including health and welfare, general liability, automobile liability, workers' compensation, real and personal property, directors' and officers' liability, pollution legal liability, cyber incident liability and other coverages we believe are customary to the industry. Our exposure to loss for insurance claims is generally limited to the per-incident deductible under the related insurance policy. We use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. As of December 31, 2021, both our commercial general liability insurance policy and our workers' compensation insurance program carried self-insurance exposures of up to $5 million per incident. As of December 31, 2021, our automobile liability insurance program included a per-incident deductible of up to $10 million. We do not expect the impact of any known casualty, property, environmental or other contingency to have a material impact on our financial condition, results of operations or cash flows. Our estimated insurance liabilities as of December 31, 2021 are summarized in Note 10 to the Consolidated Financial Statements.

Regulation

Our business is subject to extensive and evolving federal, state or provincial and local environmental, health, safety and transportation laws and regulations. These laws and regulations are administered by the EPA, Environment Canada, and various other federal, state, provincial and local environmental, zoning, transportation, land use, health and safety agencies in the U.S. and Canada. Many of these agencies regularly examine our operations to monitor compliance with these laws and regulations and have the power to enforce compliance, obtain injunctions or impose civil or criminal penalties in cases of violations.

Because the primary mission of our business is to collect, process and manage solid waste and recyclables in an environmentally sound manner, a significant amount of our capital expenditures are related, either directly or indirectly, to environmental protection measures, including compliance with federal, state, provincial and local rules. There are costs associated with siting, design, permitting, construction, operations, monitoring, site maintenance, corrective actions, financial assurance, and facility closure and post-closure obligations. With acquisition, development or expansion of a waste management or disposal facility, materials recovery facility, compost facility or transfer station, we must often spend considerable time, effort and money to obtain or maintain required permits and approvals. There are no assurances that we will be able to obtain or maintain required governmental approvals. Once obtained, permits are subject to renewal, modification, suspension or revocation by the issuing authority. Compliance with current regulations and future requirements could require us to make significant capital and operating expenditures. However, most of these expenditures are made in the normal course of business and do not place us at any competitive disadvantage.

The regulatory environment in which we operate is influenced by changes in leadership at the federal, state, provincial and local levels. The current U.S. administration, for example, has been taking steps towards reinstating, and in some cases enhancing, policies and regulations rolled back by the previous administration. While increasing regulation may have a negative impact on our operating costs, extensive environmental regulation applicable to the waste sector is also a barrier to rapid entry that benefits our Company. Moreover, the risk reduction provided by stringent regulation is valuable to our customers and the communities we serve.

Federal Regulation

The primary U.S. federal statutes affecting our business are summarized below:

- The Resource Conservation and Recovery Act of 1976 ("RCRA"), as amended, regulates handling, transporting and disposing of hazardous and non-hazardous waste and delegates authority to states to develop programs to ensure the safe disposal of solid waste. Landfills are regulated under Subtitle D of RCRA, which sets forth minimum federal performance and design criteria for solid waste landfills, and Subtitle C of RCRA, which establishes a federal program to manage hazardous wastes from cradle to grave. These regulations are typically implemented by the states, although states can impose requirements that are more stringent than the federal standards. We incur costs in complying with these standards in the ordinary course of our operations.

  We continue to monitor certain developments under RCRA, including relief from increased user fees accompanying the system that the EPA uses to track hazardous waste shipments electronically, potential changes to the rules governing the disposal and beneficial use of coal combustion residuals, and clarity on the U.S. Department of Energy's progress in establishing a government facility and corresponding fee structure for the long-term storage and disposal of elemental mercury. We cannot predict what costs we will incur in connection with these regulations, but we do not anticipate a material impact to our operations. We also are working closely with both agencies to minimize risks to our industry on these regulatory matters.

- The Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), as amended, which is also known as Superfund, provides for federal authority to respond directly to releases or threatened releases of hazardous substances into the environment that have created actual or potential environmental hazards. CERCLA's primary means for addressing such releases is to impose strict liability for cleanup of disposal sites upon current and former site owners and operators, generators of the hazardous substances at the site and transporters who selected the disposal site and transported substances thereto. Liability under CERCLA is not dependent on the intentional release of hazardous substances; it can be based upon the release or threatened release of hazardous substances, even resulting from lawful, unintentional and attentive action, as the term is defined by CERCLA and other applicable statutes and regulations. The EPA may issue orders requiring responsible parties to perform response actions at sites, or the EPA may seek recovery of funds expended or to be expended in the future at sites. Liability may include contribution for cleanup costs incurred by a defendant in a CERCLA civil action or by an entity that has previously resolved its liability to federal or state regulators in an administrative or judicially-approved settlement. Liability under CERCLA could also include obligations to a potentially responsible party ("PRP") that voluntarily expends site clean-up costs. Further, liability for damage to publicly-owned natural resources may also be imposed. We are subject to potential liability under CERCLA as an owner or operator of facilities at which hazardous substances have been disposed and as a generator or transporter of hazardous substances disposed of at other locations.

- The Federal Water Pollution Control Act of 1972, as amended, known as the Clean Water Act, regulates the discharge of pollutants into streams, rivers, groundwater, or other surface waters from a variety of sources, including solid and hazardous waste disposal sites. If our operations discharge any pollutants into federally protected surface waters, the Clean Water Act requires us to apply for and obtain discharge permits, conduct sampling and monitoring, and, under certain circumstances, reduce the quantity of pollutants in those discharges.

The EPA also requires landfills and other waste-handling facilities to obtain storm water discharge permits, and if a landfill or other facility discharges wastewater through a sewage system to a publicly-owned treatment works, the facility must comply with discharge limits imposed by the treatment works. Further, before the development or expansion of a landfill can alter or affect certain “wetlands,” a permit may have to be obtained providing for mitigation or replacement wetlands. The Clean Water Act provides for civil, criminal and administrative penalties for violations of its provisions.

- The Clean Air Act of 1970, as amended, provides for federal, state and local regulation of the emission of air pollutants. Many of our municipal solid waste (“MSW”) landfills and landfill gas-to-energy facilities are subject to regulations implemented under the Clean Air Act, including new source performance standards, emission guidelines and national emission standards for hazardous air pollutants. These regulations impose performance standards to minimize air emissions from regulated MSW landfills, subject those landfills to certain operating permit requirements under Title V of the Clean Air Act and, in many instances, require installation of landfill gas collection and control systems to control emissions or to treat and utilize landfill gas on- or off-site.

  The EPA finalized a rule in May 2021 implementing landfill gas control and monitoring requirements for older landfills; however, the regulatory changes contemplated therein are not expected to have a material adverse impact on our business as a whole. We also are closely monitoring the evolving capabilities of ground, aerial, and satellite-based methane detection and monitoring systems, and investing in pilot programs to further explore these innovations. As these technologies are expected to advance rapidly in the coming years, we are continuing to engage with the EPA on the implications of the changing landscape for the waste industry and potential future regulation.

- The Occupational Safety and Health Act of 1970 (“OSHA”), as amended, establishes certain employer responsibilities, including maintenance of a workplace free of recognized hazards likely to cause death or serious injury, compliance with standards promulgated by the Occupational Safety and Health Administration, and various reporting and record keeping obligations as well as disclosure and procedural requirements. Various standards for notices of hazards, safety in excavation and demolition work and the handling of asbestos, may apply to our operations. The Department of Transportation and OSHA, along with other federal agencies, have jurisdiction over certain aspects of hazardous materials and hazardous waste, including safety, movement and disposal. Various state and local agencies with jurisdiction over disposal of hazardous waste may seek to regulate movement of hazardous materials in areas not otherwise preempted by federal law.

  OSHA has recently indicated that it will pursue COVID-19 vaccine and testing requirements through a traditional rulemaking process, and additional vaccine mandates may be announced in jurisdictions in which our businesses operate. We cannot currently predict the impact of any such vaccine requirements on our workforce.

State, Provincial and Local Regulations

There are also various state or provincial and local regulations that affect our operations. Each state and province in which we operate has its own laws and regulations governing solid waste disposal, water and air pollution, and, in most cases, releases and cleanup of hazardous substances and liabilities for such matters. States and provinces have also adopted regulations governing the design, operation, maintenance and closure of landfills and transfer stations, and laws governing where recyclable materials can be sold. Some counties, municipalities and other local governments have adopted similar laws and regulations. Our facilities and operations are likely to be subject to these types of requirements.

Our landfill operations are affected by the increasing preference for alternatives to landfill disposal. Many state and local governments mandate recycling and waste reduction at the source and prohibit the disposal of certain types of materials at landfills, such as recyclable materials (cardboard, bottles and cans), yard waste, food waste and electronics. The number of state and local governments with recycling and diversion requirements and disposal bans continues to grow, while the logistics and economics of recycling or processing many of these items remain challenging.

Various states have enacted, or are considering enacting, laws that restrict the disposal within the state of solid waste generated outside the state. While laws that overtly discriminate against out-of-state waste have been found to be unconstitutional, some laws that are less overtly discriminatory have been upheld in court. From time to time, the U.S.

Congress has considered legislation authorizing states to adopt regulations, restrictions, or taxes on the importation of out-of-state or out-of-jurisdiction waste. Additionally, several state and local governments have enacted “flow control” regulations, which attempt to require that all waste generated within the state or local jurisdiction be deposited at specific sites, which has been upheld by the U.S. Supreme Court for waste directed to facilities owned by the local government. The U.S. Congress’ adoption of legislation allowing restrictions on interstate transportation of out-of-state or out-of-jurisdiction waste or certain types of flow control, or courts’ interpretations of interstate waste and flow control legislation, could adversely affect our solid and hazardous waste management services.

Additionally, regulations establishing extended producer responsibility (“EPR”) are being considered or implemented in many places around the world, including in the U.S. and Canada. EPR regulations are designed to place either partial or total responsibility on producers to fund the post-use life cycle of the products they create. Along with the funding responsibility, producers may be required to undertake additional responsibilities, such as taking over management of local recycling programs by taking back their products from end users or managing the collection operations and recycling processing infrastructure. There is no federal law establishing EPR in the U.S. or Canada; however, federal, state, provincial and local governments could take, and in some cases have taken, steps to implement EPR regulations for packaging, including traditional recyclables such as cardboard, bottles and cans. If wide-ranging EPR regulations were adopted, they could have a fundamental impact on the waste, recycling and other streams we manage and how we operate our business, including contract terms and pricing.

Many states, provinces and local jurisdictions have enacted “fitness” laws that allow the agencies that have jurisdiction over waste services contracts or permits to deny or revoke these contracts or permits based on the applicant’s or permit holder’s compliance history. Some states, provinces and local jurisdictions go further and consider the compliance history of the parent, subsidiaries or affiliated companies, in addition to the applicant or permit holder. These laws authorize the agencies to make determinations of an applicant’s or permit holder’s fitness to be awarded a contract to operate, and to deny or revoke a contract or permit because of unfitness, unless there is a showing that the applicant or permit holder has been rehabilitated through the adoption of various operating policies and procedures put in place to assure future compliance with applicable laws and regulations. While fitness laws can present potential increased costs and barriers to entry into market areas, these laws have not, and are not expected to have a material adverse impact on our business as a whole.

Emerging Trends in Policy and Regulation

Climate and Sustainability

Jurisdictions are increasingly taking action to reduce greenhouse gas (“GHG”) emissions through a broad range of climate policies. As landfills are emerging as one of the focal points for advancing climate-related goals, we are actively working with policymakers to ensure they recognize the significant reductions in GHG emissions that the waste sector already has achieved and the work being done to further reduce emissions, the challenges associated with quantifying landfill emissions precisely, and the role of our sector in providing an essential, and highly regulated, public service.

In light of regulatory and business developments related to concerns about climate change, we have identified strategic business opportunities to provide our public and private sector customers with sustainable solutions to reduce their GHG emissions. As part of our on-going marketing evaluations, we assess customer demand for and opportunities to develop waste services offering verifiable carbon reductions, such as waste reduction, increased recycling, composting, and conversion of landfill gas and discarded materials into electricity and fuel. We use carbon life cycle assessment tools in evaluating potential new services and in establishing the value proposition that makes us attractive as an environmental service provider. We are active in support of public policies that encourage development and use of lower carbon energy and waste services that lower users’ carbon footprints. We understand the importance of broad stakeholder engagement in these endeavors, and actively seek opportunities for public policy discussion on more sustainable materials management practices. In addition, we work with stakeholders at the federal and state level in support of legislation that encourages production and use of renewable, low-carbon fuels and electricity.

We continue to assess the physical risks to our Company's operations from the effects of severe weather events and use risk mitigation planning to increase our resiliency in the face of such events. We are investing in infrastructure to withstand more severe storm events, which may afford us a competitive advantage and reinforce our reputation as a reliable service provider through continued service in the aftermath of such events.

Consistent with our Company's long-standing commitment to sustainability and environmental stewardship, we have published our 2021 Sustainability Report, which details the GHG emissions reductions we have facilitated to date and our determination to expand these reductions in the future, as well as our commitment to help make the communities in which we live and work safe, resilient and sustainable. Our 2021 Sustainability Report can be found at https://sustainability.wm.com, but it does not constitute a part of, and is not incorporated by reference into, this Annual Report on Form 10-K. The Company actively participates in a number of sustainability reporting programs and frameworks, including being listed on the 2021 Dow Jones Sustainability Index World and North America Indices.

PFAS

Efforts to address sites contaminated with per- and polyfluoroalkyl substances ("PFAS") have drawn increased attention by the federal government and in the states. PFAS are a large group of chemicals that have been used in industrial and consumer products since the 1940s, including in products as diverse as carpets, paints and stains, water-resistant clothing and fabrics, nonstick cookware, food packaging, and firefighting chemicals. Possible human health effects of exposure to certain PFAS compounds may include low infant birth weights, immune system impacts, or cancer. In October 2021, the EPA released its PFAS Strategic Roadmap, providing a high-level overview of activities that the agency intends to take through 2024 to address PFAS contamination. These actions include establishing drinking water standards, expanded authority for PFAS remediation, research and data collection on landfill discharges of PFAS in leachate, new risk assessments and test procedures, and updated guidance on PFAS disposal and destruction options. Meanwhile, an increasing number of states have enacted new drinking water, surface water and/or groundwater limits for various PFAS, which has led to a patchwork of PFAS standards across the U.S. Compliance with new and proposed PFAS standards is anticipated to result in additional expense to the Company, but such standards are also anticipated to present potential business opportunities in the area of PFAS management, treatment and disposal.

Recycling; Foreign Import and Export Regulations and Material Restrictions

Enforcement or implementation of foreign and domestic regulations can affect our ability to export recyclables. Attention on waste in the environment has led to new international laws restricting the flow of certain recyclables. As an example, on January 1, 2021, new restrictions on the international trade of most plastics went into effect as part of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. At this time, the U.S. is not a party to the Basel Convention, but most countries to which we export commodities are, which may limit our ability to export certain plastics.

In recent years, changes in regulations affecting the international flow of recyclables have led to a reduction in export activity for recyclables, higher quality requirements, and higher processing costs. COVID-19 placed additional financial stress on recyclers and municipalities, resulting in some recycling programs being paused or eliminated. These changes have led to a number of states considering EPR regulations.

Prices and demand for recyclables fluctuate. Recycling revenue increased $537 million and $75 million in 2021 and 2020, respectively, as compared with the prior year periods primarily from higher market prices for recycling commodities. To support recent increases in both quality requirements and demand for commodities, we have increased our investment in recycling infrastructure and the size of our recycling operations. This, in turn, increases our exposure to commodity price fluctuations. Additionally, future regulation, tariffs, international trade policies or other initiatives may impact supply and demand of material, or increase operating costs, which could impact the profitability of our recycling operations.

For the past several years, we have been working with stakeholders to educate the public on the need to recycle properly. We continue to invest time and effort in working closely with customers to improve the quality of materials received at our facilities. We have continued our focus on developing a sustainable recycling business model that meets customers' environmental needs by passing through the increasing cost of processing and higher contamination rates, and these efforts continued to have a positive impact on the operating results for our recycling business in 2021.

With a heightened awareness of the global problems caused by plastic waste in the environment, an increasing number of cities and states across the country have passed ordinances banning certain types of plastics from sale or use. The most common materials banned include plastic bags and straws, polystyrene plastic, and some types of single use packaging. These bans have increased pressure by manufacturers on our recycling facilities to accept a broader array of materials in curbside recycling and composting programs to alleviate public pressures to ban the sale of those materials. However, with no viable end markets for many of these materials, we and other recyclers are working to educate and remind customers of the need for end market demand and economic viability to support sustainable recycling programs. With increased focus on responsible management of plastics, our procurement team has taken a proactive approach to ensure environmental sustainability goals are prioritized in managing the products we buy.

Regulation of Oil and Gas Exploration, Production and Disposal

Our EES business provides specialized environmental management and disposal services for fluids used and wastes generated by customers engaged in oil and gas exploration and production, and these disposal services include use of underground injection wells. There is heightened federal regulatory focus on emissions of methane that occur during drilling and transportation of natural gas, as well as state attention to protective disposal of drilling residuals. There also remains heightened attention from the public, some states and the EPA to the alleged potential for hydraulic fracturing that occurs during drilling to impact drinking water supplies. Increased regulation of oil and gas exploration and production, including GHG emissions or hydraulic fracturing, could make it more difficult or cost-prohibitive for our EES customers to continue operations, adversely affecting our business.

Additionally, any new regulations regarding the treatment and disposal of wastes associated with exploration and production operations, including through use of injection wells, could increase our costs to provide oilfield services and reduce our margins and revenue from such services. Conversely, any loosening of regulations regarding how such wastes are handled or disposed of could adversely affect our business, as we believe the size, capital structure, regulatory sophistication and established reliability of our Company provide us with an advantage in providing services that must comply with any complex regulatory regime that may govern providing oilfield waste services.

Investment in Natural Gas Vehicles and Infrastructure

We operate a large fleet of natural gas vehicles, and we plan to continue to invest in these assets for our collection fleet. Natural gas fueling infrastructure is not yet broadly available in the U.S. and Canada; as a result, we have constructed and operate natural gas fueling stations, some of which also serve the public or pre-approved third parties. Concerns have been raised about the potential for emissions from the fueling stations and infrastructure that serve natural gas-fueled vehicles. Additional regulation of, or restrictions on, natural gas fueling infrastructure or reductions in associated tax incentives could increase our operating costs. We are not yet able to evaluate potential operating changes or costs associated with such regulations, but we do not anticipate that such regulations would have a material adverse impact on our business.

There is increasing pressure to reduce the use of fossil fuel in the heavy-duty truck industry, and some cities and states are beginning to discuss requirements for using more advanced engine technology, such as electric powered vehicles, rather than natural gas or diesel vehicles. This is resulting in a reduction in tax incentives and grants for natural gas trucks. Although current options for heavy-duty electric vehicles lack sufficient range and proven experience for our operations, we are proactively engaging in pilots of electric powered heavy-duty vehicles and anticipate that we could redirect future planned capital investments in our fleet toward these assets when the vehicles prove economically and operationally viable. Should regulation mandate an accelerated transition to electric powered vehicles, our cost to acquire vehicles needed to service our customers could increase, capital investment required to establish sufficient charging infrastructure could be significant and investments we have made in an industry-leading natural gas fleet and infrastructure could be impaired.

Renewable Fuel Production

We have invested, and continue to invest, in facilities to capture methane produced from the Company's landfills and convert it into RNG. RNG produced from our landfills, as well as dairy biogas, constitute a significant source of fuel for our natural gas collection vehicles. The Energy Policy Act of 2005 and Energy Independence and Security Act of 2007 authorized the RFS program that promotes the production and use of renewable transportation fuels. Many of our facilities are the EPA-registered producers of transportation fuel making compressed and liquefied RNG from landfill biogas, which qualifies as a cellulosic biofuel under the RFS program. Oil refiners and importers are required through the RFS program to blend specified volumes of various categories of renewable transportation fuels with gasoline or buy credits, referred to as RINs, from renewable fuel producers. Market uncertainty related to the EPA's implementation of the RFS program led to volatility and declines in the price of RINs between 2017 and 2020. RIN prices rebounded in 2020 in response to a court ruling limiting the number of small refinery exemptions that the EPA could grant to renewable fuel obligations, and later following the November 2020 federal elections on the belief that the newly elected presidential administration would result in stronger enforcement of mandates for RNG and other advanced and conventional biofuels. The market's expectations were realized in December 2021, when the EPA proposed robust volumetric standards under the RFS program while proposing to deny all pending applications for small refinery exemptions. The EPA is expected to propose a rule later in 2022 setting forth the direction of the RFS program for 2023 and years after, which rule is expected to afford additional opportunities for the biogas sector to participate in the RFS program. We will continue to advocate for the current administration to implement policies that ensure long term stability for renewable transportation fuels, as changes in the RFS market or the structure of the RFS program can and has impacted the financial performance of the facilities constructed to capture and treat the gas.

Environmental Justice

Federal, state, and local governments are also increasingly adopting requirements for environmental justice reviews as part of certain permitting decisions. These policies generally require permitting agencies to give heightened attention to the potential for projects to disproportionately impact low-income and minority communities. Our Company supports policies seeking to advance high standards of environmental performance and the fair treatment of people of all races, cultures, and incomes. Nevertheless, we are actively monitoring recent regulatory developments in this area as additional conditions imposed on permitting decisions could increase the time and cost involved to pursue and maintain necessary permits.

Item 1A. ***Risk Factors.***

In an effort to keep our stockholders and the public informed about our business, we may make “forward-looking statements.” Forward-looking statements are often identified by the words, “will,” “may,” “should,” “continue,” “anticipate,” “believe,” “expect,” “plan,” “forecast,” “project,” “estimate,” “intend” and words of a similar nature and generally include statements regarding:

- future results of operations, including revenues, earnings or cash flows;
- plans and objectives for the future;
- projections, estimates or assumptions relating to our operational or financial performance; or
- our opinions, views or beliefs about the effects of current or future events, circumstances or performance.

You should view these statements with caution. These statements are not guarantees of future performance, circumstances or events. They are based on facts and circumstances known to us as of the date the statements are made. The following discussion should be read together with the Consolidated Financial Statements and the notes thereto. Outlined below are some of the risks that we believe could affect our business and financial statements for 2022 and beyond and could cause actual results to be materially different from those set forth in forward-looking statements made by the Company. In addition to the following risks, there may be additional risks and uncertainties that adversely affect our business, performance, or financial condition in the future that are not presently known or are not currently believed to be material. The Company continues to be optimistic about volume recovery and overall economic recovery from the impacts of the COVID-19 pandemic. However, uncertainty remains with respect to various factors that influence the pace of economic recovery, including the risks discussed below and the potential for future resurgence in transmission of COVID-19 and related business closures due to virus variants or otherwise. Such conditions could have an unanticipated adverse impact on our business. We assume no obligation to update any forward-looking statement, whether as a result of future events, circumstances or developments or otherwise.

Strategy and Operational Risks

If we fail to implement our business strategy, our financial performance and our growth could be materially and adversely affected.

Our future financial performance and success are dependent in large part upon our ability to implement our business strategy successfully. Implementation of our strategy will require effective management of our operational, financial and human resources and will place significant demands on those resources. See Item 1. *Business* for more information on our business strategy.

There are risks involved in pursuing our strategy, including the following:

- Our employees, customers or investors may not embrace and support our strategy.
- We may not be able to hire or retain the personnel necessary to manage our strategy effectively.
- A key element of our strategy is yield management through focus on price leadership, which has presented challenges to keep existing business and win new business at reasonable returns. We have also continued our environmental fee, fuel surcharge and regulatory recovery fee to offset costs. The loss of volumes as a result of price increases and our unwillingness to pursue lower margin volumes may negatively affect our cash flows or results of operations. Additionally, we have in the past and may in the future face purported class action lawsuits related to our customer service agreements, prices and fees.
- We may be unsuccessful in implementing improvements to operational efficiency and such efforts may not yield the intended result.
- We may not be able to maintain cost savings achieved through optimization efforts, due to inflationary cost pressure or otherwise.

- Strategic decisions with respect to our asset portfolio may result in impairments to our assets. See Item 1A. *Risk Factors — We may record material charges against our earnings due to impairments to our assets*.
- Our ability to make strategic acquisitions depends on our ability to identify desirable acquisition targets, negotiate advantageous transactions despite competition for such opportunities, fund such acquisitions on favorable terms, obtain regulatory approvals and realize the benefits we expect from those transactions.
- Acquisitions, investments and/or new service offerings may not increase our earnings in the timeframe anticipated, or at all, due to difficulties operating in new markets or providing new service offerings, failure of emerging technologies to perform as expected, failure to operate within budget, integration issues, or regulatory issues, among others.
- Integration of acquisitions and/or new services offerings could increase our exposure to the risk of inadvertent noncompliance with applicable laws and regulations.
- Liabilities associated with acquisitions, including ones that may exist only because of past operations of an acquired business, may prove to be more difficult or costly to address than anticipated.
- Execution of our strategy, particularly growth through acquisitions, may cause us to incur substantial additional indebtedness, which may divert capital away from our traditional business operations and other financial plans.
- As we complete the integration of our prior acquisition of Advanced Disposal Services, Inc. ("Advanced Disposal"), we may not continue to realize the strategic benefits and cost synergies anticipated.
- We continue to seek to divest underperforming and non-strategic assets if we cannot improve their profitability. We may not be able to successfully negotiate the divestiture of underperforming and non-strategic operations, which could result in asset impairments or the continued operation of low-margin businesses.

In addition to the risks set forth above, implementation of our business strategy could also be affected by other factors beyond our control, such as increased competition, legal developments, government regulation, general economic conditions, increased operating costs or expenses, subcontractor costs and availability and changes in industry trends. We may decide to alter or discontinue certain aspects of our business strategy at any time. If we are not able to implement our business strategy successfully, our long-term growth and profitability may be adversely affected. Even if we are able to implement some or all of the initiatives of our business strategy successfully, our operating results may not improve to the extent we anticipate, or at all.

Our operations must comply with extensive existing regulations, and changes in regulations and/or enforcement of regulations can restrict or alter our operations, increase our operating costs, increase our tax rate, or require us to make additional capital expenditures.

Stringent government regulations at the federal, state, provincial and local level in the U.S. and Canada have a substantial impact on our operations, and compliance with such regulations is costly. Many complex laws, rules, orders and interpretations govern environmental protection, health, safety, land use, zoning, transportation and related matters. Among other things, governmental regulations and enforcement actions restrict our operations at times and may adversely affect our financial condition, results of operations and cash flows by imposing conditions such as:

- limitations on siting and constructing new waste disposal, transfer, recycling or processing facilities or on expanding existing facilities;
- limitations, regulations or levies on collection and disposal prices, rates and volumes;
- limitations or bans on disposal or transportation of out-of-state waste or certain categories of waste;
- mandates regarding the management of solid waste, including requirements to recycle, divert or otherwise process certain waste, recycling and other streams; or
- limitations or restrictions on the recycling, processing or transformation of waste, recycling and other streams.

Regulations affecting the siting, design and closure of landfills require us, at times, to undertake investigatory or remedial activities, curtail operations or close landfills temporarily or permanently. We have significant financial obligations relating to final capping, closure, post-closure and environmental remediation at our existing landfills and we establish accruals for these estimated costs. Expenditures could be accelerated or materially exceed our accruals due to the types of waste collected and manner in which it is transported and disposed of, including actions taken in the past by companies we have acquired or third-party landfill operators; environmental regulatory changes; new information about waste types previously collected, such as PFAS or other emerging contaminates, and other reasons.

Additionally, regulations establishing extended producer responsibility ("EPR") are being considered or implemented in many places around the world, including in the U.S. and Canada. EPR regulations are designed to place either partial or total responsibility on producers to fund the post-use life cycle of the products they create. Along with the funding responsibility, producers may be required to undertake additional responsibilities, such as taking over management of local recycling programs by taking back their products from end users or managing the collection operations and recycling processing infrastructure. There is no federal law establishing EPR in the U.S. or Canada; however, federal, state, provincial and local governments could, and in some cases have, taken steps to implement EPR regulations for packaging, including traditional recyclables such as cardboard, bottles and cans. If wide-ranging EPR regulations were adopted, they could have a fundamental impact on the waste streams we manage and how we operate our business, including contract terms and pricing. A significant reduction in the waste, recycling and other streams we manage could have a material adverse effect on our financial condition, results of operations and cash flows.

Our business is subject to operational and safety risks, including the risk of personal injury to employees and others.

Providing environmental and waste management services, including constructing and operating landfills, transfer stations, MRFs and other disposal facilities, involves risks such as truck accidents, equipment defects, malfunctions and failures. Additionally, we closely monitor and manage landfills to minimize the risk of waste mass instability, releases of hazardous materials, and odors that are sometimes triggered by weather or natural disasters. There are also risks presented by the potential for subsurface heat reactions causing elevated landfill temperatures and increased production of leachate, landfill gas and odors. We also build and operate natural gas fueling stations, some of which also serve the public or third parties. Operation of fueling stations and landfill gas collection and control systems involves additional risks of fire and explosion. Any of these risks could potentially result in injury or death of employees and others, a need to shut down or reduce operation of facilities, increased operating expense and exposure to liability for pollution and other environmental damage, and property damage or destruction.

While we seek to minimize our exposure to such risks through comprehensive training, compliance and response and recovery programs, as well as vehicle and equipment maintenance programs, if we were to incur substantial liabilities in excess of any applicable insurance, our business, results of operations and financial condition could be adversely affected. Any such incidents could also tarnish our reputation and reduce the value of our brand. Additionally, a major operational failure, even if suffered by a competitor, may bring enhanced scrutiny and regulation of our industry, with a corresponding increase in operating expense.

We may be unable to obtain or maintain required permits or expand existing permitted capacity of our landfills, which could decrease our revenue and increase our costs.

Our ability to meet our financial and operating objectives depends in part on our ability to obtain and maintain the permits necessary to operate landfill sites. Permits to build, operate and expand solid waste management facilities, including landfills and transfer stations, have become more difficult and expensive to obtain and maintain. Permits often take years to obtain as a result of numerous hearings and compliance requirements with regard to zoning, environmental and other regulations. These permits are also often subject to resistance from citizen or other groups and other political pressures. Local communities and citizen groups, adjacent landowners or governmental agencies may oppose the issuance of a permit or approval we may need, allege violations of the permits under which we currently operate or laws or regulations to which we are subjected, or seek to impose liability on us for alleged environmental damage. Federal, state and local governments are also increasingly adopting requirements for environmental justice reviews as part of certain permitting decisions. These policies generally require permitting agencies to give heightened attention to the potential for projects to disproportionately impact low-income and minority communities. Responding to permit challenges has, at times, increased our costs and extended the time associated with establishing new facilities and expanding existing facilities. In addition, failure to receive regulatory and zoning approval may prohibit us from establishing new facilities or expanding existing facilities. Our failure to obtain the required permits to operate our landfills could have a material adverse impact on our financial condition, results of operations and cash flows.

If we are unable to attract, hire or retain key team members and a high-quality workforce, or if our succession planning does not develop an adequate pipeline of future leaders, it could disrupt our business, jeopardize our strategic priorities and result in increased costs, negatively impacting our results of operations.

Our operations require us to attract, hire, develop and retain a high-quality workforce to provide a superior customer experience. This includes key individuals in leadership and specialty roles, as well as a very large number of drivers, technicians and other front-line and back-office team members necessary to provide our environmental services. We experience significant competition to hire and retain individuals for certain front-line positions, such as commercial truck drivers, from within and outside our industry. (Also see Item 1A. *Risk Factors — Market disruption, including labor shortages and supply chain constraints, and macroeconomic pressures, including the heightened pace of inflation, have adversely impacted our business and results of operations*.) Additionally, the market for employees that serve on our digital team is highly competitive. As we have accelerated our investments in our digital platform, it is increasingly important that we are able to attract and retain employees with the skills and expertise necessary to implement and manage our technology-led strategy. We also compete to attract skilled business leaders, and our own key team members are sought after by our competitors and other companies. We make significant investments, and engage in extensive internal succession planning, to provide us with a robust pipeline of future leaders. If we are not able to attract, hire, develop and retain a high-quality workforce with the necessary skills and expertise, as well as key leaders, or if we experience significant employee turnover, it can result in business and strategic disruption, increased costs, and loss of institutional knowledge, which could negatively impact our results of operations.

Our business depends on our reputation and the value of our brand.

We believe we have developed a reputation for high-quality service, reliability and social and environmental responsibility, and we believe our brand symbolizes these attributes. The WM brand name, trademarks and logos and our reputation are powerful sales and marketing tools, and we devote significant resources to promoting and protecting them. Adverse publicity, whether or not justified, relating to activities by our operations, employees or agents, or challenges to our assertions of social and environmental responsibility, could tarnish our reputation and reduce the value of our brand. Damage to our reputation could reduce demand for our services and potentially have an adverse effect on our financial condition, liquidity and results of operations, as well as require additional resources to rebuild our reputation and restore the value of our brand.

We have made significant investments in an extensive natural gas truck fleet, which makes us partially dependent on the availability of natural gas and fueling infrastructure and vulnerable to natural gas prices, and requirements to transition to other vehicle types could impair these investments.

We operate a large fleet of natural gas vehicles, and we plan to continue to invest in these assets for our collection fleet. However, natural gas fueling infrastructure is not yet broadly available in the U.S. and Canada; as a result, we have constructed and operate natural gas fueling stations, some of which also serve the public or pre-approved third parties. It will remain necessary for us to invest capital in fueling infrastructure in order to power our natural gas fleet. Concerns have been raised about the potential for emissions from fueling infrastructure that serve natural gas-fueled vehicles. New regulation of, or restrictions on, natural gas fueling infrastructure or reductions in associated tax incentives could increase our operating costs. Additionally, fluctuations in the price and supply of natural gas could substantially increase our operating expenses; a reduction in the existing cost differential between natural gas and diesel fuel could materially reduce the benefits we anticipate from our investment in natural gas vehicles. Further, our fuel surcharge program is currently indexed to diesel fuel prices, and price fluctuations for natural gas may not effectively be recovered by this program.

There is increasing pressure to reduce the use of fossil fuel in the heavy-duty truck industry, and some cities and states are beginning to discuss requirements for using more advanced engine technology, such as electric powered vehicles, rather than natural gas or diesel vehicles. This is resulting in a reduction in tax incentives and grants for natural gas trucks. Although current options for heavy-duty electric vehicles lack sufficient range and proven experience for our operations, we are proactively engaging in pilots of electric powered heavy-duty vehicles and anticipate that we could redirect future planned capital investments in our fleet toward these assets when the vehicles prove economically and operationally viable. Should regulation mandate an accelerated transition to electric powered vehicles, our cost to acquire vehicles needed to service our customers could increase, capital investment required to establish sufficient charging infrastructure could be significant and investments we have made in an industry-leading natural gas fleet and infrastructure could be impaired.

Increases in our labor costs as a result of labor unions organizing, changes in regulations related to labor unions or increases in employee minimum wages, could adversely affect our future results.

Labor unions continually attempt to organize our employees, and these efforts will likely continue in the future. Certain groups of our employees are currently represented by unions, and we have negotiated collective bargaining agreements with these unions. Additional groups of employees may seek union representation in the future, and, if successful, would enhance organized labor's leverage to obtain higher than expected wage and benefits costs and resist the introduction of new technology and other initiatives, which can result in increased operating expenses and lower net income. If we are unable to negotiate acceptable collective bargaining agreements, our operating expenses could increase significantly as a result of work stoppages, including strikes. Additionally, a large portion of our workforce are hourly personnel, and many of these individuals, particularly in our recycling business, are paid at rates related to federal and state minimum wages. Increases in minimum wage rates, or the enactment of new wage-related legislation, may significantly increase our labor costs. Any of these matters could adversely affect our financial condition, results of operations and cash flows.

The seasonal nature of our business, severe weather events resulting from climate change and event driven special projects cause our results to fluctuate, and prior performance may not be indicative of our future results.

Our operating revenues tend to be somewhat higher in summer months, primarily due to the higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends.

Service disruptions caused by severe storms, extended periods of inclement weather or climate events can significantly affect the operating results of the geographic areas affected. On the other hand, certain destructive weather and climate conditions, such as wildfires in the Western U.S. and hurricanes that most often impact our operations in the Southern and Eastern U.S. during the second half of the year, can increase our revenues in the geographic areas affected as a result of the waste volumes generated by these events. While weather-related and other event driven special projects can boost revenues through additional work for a limited time, due to significant start-up costs and other factors, such revenue can generate earnings at comparatively lower margins.

For these and other reasons, operating results in any period may not be indicative of operating results for any other period. Our stock price may be negatively impacted by interim variations in our results.

External Economic and Industry Risks

The COVID-19 global pandemic has caused a significant disruption in social and commercial activity throughout North America, and the continuation of the COVID-19 pandemic, or other similar pandemic conditions, may have a material adverse impact on our business, financial condition, results of operations and cash flows.

During 2020 and continuing into 2021, federal, state and local governments throughout North America imposed varying degrees of restriction on social and commercial activity to promote social distancing in an effort to slow the spread of COVID-19. The pandemic and related measures have had a significant adverse impact on many sectors of the economy, including environmental services. The initial business closures and negative impact on general economic conditions resulted in volume declines and reductions in customers' waste service needs, which negatively impacted our results of operations and cash flows. In particular, COVID-19 caused decreases in volumes in higher margin businesses, impacting key financial metrics.

Throughout 2021, our volumes recovered from the sharp decline experienced in April 2020, with minimal impact from the resurgence in transmission of COVID-19 associated with recent virus variants, as communities and businesses remained open. However, uncertainty remains with respect to various factors that influence the pace of economic recovery, including factors discussed in the two risk factors immediately below. The potential for future resurgence in transmission of COVID-19 and related business closures, due to COVID-19 variants or other pandemic conditions, could adversely impact our volumes and costs in the future. If such conditions were to deepen and extend the broad-based economic slow-down, it may have a material adverse impact on our financial condition, results of operations and cash flows and hinder our ability to grow our business and execute our business strategy. Additionally, if a large portion of our employee base were to become ill, it could impact our ability to provide timely and reliable service.

Governmental regulations requiring mandatory COVID-19 vaccination of employees could adversely impact our ability to perform or compete for certain contracts and negatively affect our results of operations.

In September 2021, President Biden issued an executive order requiring all employers with U.S. government contracts to ensure that their U.S.-based employees, contractors and subcontractors that work on or in support of U.S. government contracts, with some exceptions, to be fully vaccinated against COVID-19. We are currently party to certain service agreements with the U.S. government. The vaccine mandate is facing legal challenges and currently is enjoined nationwide. In November 2021, OSHA announced an Emergency Temporary Standard ("ETS") mandating either full vaccination against COVID-19 or weekly testing of employees for employers with 100 or more employees; however, the agency withdrew the ETS in January 2022 following an unfavorable decision by the U.S. Supreme Court. OSHA has indicated that it will continue to pursue the vaccine and testing requirements of the ETS through the traditional rulemaking process, and additional vaccine mandates may be announced in jurisdictions in which our businesses operate. We cannot currently predict the impact of any such vaccine requirements on our workforce, although implementation may result in our inability to perform or compete for certain contracts, as well as significant cost, operational disruption, attrition and difficulty securing future labor needs in the already-constrained labor market.

Market disruption, including labor shortages and supply chain constraints, and macroeconomic pressures, including the heightened pace of inflation, have adversely impacted our business and results of operations.

Certain macroeconomic pressures and market disruption, driven in part by the COVID-19 pandemic, intensified during the second half of 2021 and are continuing. The constrained labor market has resulted in increased costs for wage adjustments, overtime hours and training new hires to address operational challenges servicing customers. The COVID-19 pandemic and the constrained labor market have also contributed to significant global supply chain disruption and inflationary pressure for the goods and services we purchase, with a particular impact on our repair and maintenance costs. Supply chain constraints have also caused delayed delivery of fleet, steel containers and other purchases. Aspects of our business rely on third-party transportation providers, and such services have become more limited and expensive. Additionally, we are currently experiencing margin pressures from commodity-driven business impacts, particularly from recycling brokerage rebates and higher fuel prices. The extent and duration of the impact of these labor market, supply chain and transportation challenges are subject to numerous factors, including the continuing impact of the COVID-19 pandemic; size, location and qualifications of the labor pool; behavioral changes; wage and price structures; adoption of new or revised regulations; and broader macroeconomic conditions. If we are not able to overcome limitations on labor availability, it could materially impact our ability to service our customers and our financial results.

Accelerated and pronounced economic pressures, such as the recent inflationary cost pressures on labor and the goods and services we rely upon to deliver service to our customers, have had and continue to have a significant impact on our cost structure and capital expenditures. Significant components of our operating expenses vary directly as we experience changes in revenue due to volume and a heightened pace of inflation, and we may not be able to dynamically manage our cost structure in response to such changes. A significant portion of our revenue is tied to a price escalation index with a lookback provision, resulting in a timing lag in our ability to recover increased costs under those contracts during this period of rapid inflation. Separately, for many of our customers we provide services under multi-year contracts that can restrict our ability to increase prices and the timing of such increases. Our overall strategic pricing efforts are focused on recovering as much of the inflationary cost increases we experience in our business as possible by increasing our average unit rate, but such efforts may not be successful for various reasons including the pace of inflation, operating cost inefficiencies, contractual limitations, and market responses. The inability to adequately increase prices to offset increased costs and inflationary pressures, or otherwise mitigate the impact of these macroeconomic conditions and market disruptions on our business, will increase our costs of doing business and reduce our margins. If such impacts are prolonged and substantial, they could have a material negative effect on our results of operations.

The waste industry is highly competitive, and if we cannot successfully compete in the marketplace, our business, financial condition and operating results may be materially adversely affected.

We encounter intense competition from governmental, quasi-governmental and private sources in all aspects of our operations. We principally compete with large national waste management companies, counties and municipalities that maintain their own waste collection and disposal operations and regional and local companies of varying sizes and financial resources. The industry also includes companies that specialize in certain discrete areas of waste management, operators of alternative disposal facilities, companies that seek to use parts of the waste stream as feedstock for renewable energy and other by-products, and waste brokers that rely upon haulers in local markets to address customer needs. In recent years, the industry has seen some additional consolidation, though the industry remains intensely competitive. Counties and municipalities may have financial competitive advantages because tax revenues are available to them and tax-exempt financing is more readily available to them. Also, such governmental units may attempt to impose flow control or other restrictions that would give them a competitive advantage. In addition, some of our competitors may have lower financial expectations, allowing them to reduce their prices to expand sales volume or to win competitively-bid contracts, including large national accounts and exclusive franchise arrangements with municipalities. When this happens, we may lose customers and be unable to execute our pricing strategy, resulting in a negative impact to our revenue growth from yield on base business.

Our revenues, earnings and cash flows will fluctuate based on changes in commodity prices, and commodity prices for recyclable materials are particularly susceptible to volatility based on regulations and tariffs that affect our ability to export products.

Enforcement or implementation of foreign and domestic regulations can affect our ability to export products. Attention on waste in the environment has led to new international laws restricting the flow of certain recyclables. As an example, on January 1, 2021, new restrictions on the international trade of most plastics went into effect as part of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. At this time, the U.S. is not a party to the Basel Convention, but most countries to which we export commodities are, which may limit our ability to export certain plastics.

In recent years, changes in regulations affecting the international flow of recyclables, have led to a reduction in export activity for recyclables, higher quality requirements and higher processing costs. COVID-19 placed additional financial stress on recyclers and municipalities, resulting in some recycling programs being paused or eliminated. These changes have led to a number of states considering EPR regulations.

Prices and demand for recyclables fluctuate. Recycling revenue increased $537 million and $75 million in 2021 and 2020, respectively, as compared with the prior year periods primarily from higher market prices for recycling commodities. To support recent increases in both quality requirements and demand for commodities, we have increased our investment in recycling infrastructure and the size of our recycling operations. This, in turn, increases our exposure to commodity price fluctuations. Additionally, future regulation, tariffs, international trade policies or other initiatives may impact supply and demand of material, or increase operating costs, which could impact the profitability of our recycling operations.

Fluctuation in energy prices also affects our business, including recycling of plastics manufactured from petroleum products. Significant variations in the price of biogas, electricity and other energy-related products that are marketed and sold by our landfill gas recovery operations can result in a corresponding significant impact to our revenue from yield from such operations. Additionally, we provide specialized disposal services for oil and gas exploration and production operations through our EES business. Demand for these services decreases when drilling activity slows due to depressed oil and gas prices, such as the low prices throughout the last few years. Any of the commodity prices to which we are subject may fluctuate substantially and without notice in the future.

Increasing customer preference for alternatives to landfill disposal and bans on certain types of waste could reduce our landfill volumes and cause our revenues and operating results to decline.

Our customers are increasingly diverting waste to alternatives to landfill disposal, such as recycling and composting, while also working to reduce the amount of waste they generate. In addition, many state and local governments mandate diversion, recycling and waste reduction at the source and prohibit the disposal of certain types of materials at landfills, such as recyclables (cardboard, bottles and cans), yard waste, food waste and electronics. Where organic waste is not banned from the landfill, some large customers such as grocery stores and restaurants are choosing to divert their organic waste from landfills. Zero-waste goals (sending no waste to the landfill) have been set by many of the U.S. and Canada's largest companies. Although such mandates and initiatives help to protect our environment, these developments reduce the volume of waste going to our landfills which may affect the prices that we can charge for landfill disposal. Our landfills currently provide our highest income from operations margins. If we are not successful in expanding our service offerings, growing lines of businesses to service waste streams that do not go to landfills, and providing alternative services for customers that wish to reduce waste entirely, then our revenues and operating results may decline. Additionally, despite the development of new service offerings and lines of business, it is possible that our revenues and our income from operations margins could be negatively affected due to disposal alternatives.

With a heightened awareness of the global problems caused by plastic waste in the environment, an increasing number of cities and states across the country have passed ordinances banning certain types of plastics from sale or use. The most common materials banned include plastic bags and straws, polystyrene plastic and some types of single use packaging. These bans have increased pressure by manufacturers on our recycling facilities to accept a broader array of materials in curbside recycling and composting programs to alleviate public pressures to ban the sale of those materials. However, there are currently no viable end markets for recycling many of these materials, and inclusion of such materials in our recycling stream increases contamination and operating costs that can negatively affect the results of our recycling operations.

General economic conditions can directly and adversely affect revenues for environmental services and our income from operations margins.

Our business is directly affected by changes in national and general economic factors that are outside of our control, including consumer confidence, interest rates and access to capital markets. A weak economy generally results in decreased consumer spending and decreases in volumes of waste generated, which negatively impacts the ability to grow through new business or service upgrades, and may result in customer turnover and reduction in customers' waste service needs. Consumer uncertainty and the loss of consumer confidence may also reduce the number and variety of services requested by customers. Additionally, a weak market for consumer goods can significantly decrease demand by paper mills for recycled corrugated cardboard used in packaging; such decrease in demand can negatively impact commodity prices and our operating income and cash flows.

A decrease in waste volumes generated results in an increase in competitive pricing pressure; such economic conditions may also interfere with our ability to implement our pricing strategy. Many of our contracts have price adjustment provisions that are tied to an index such as the Consumer Price Index, and our costs may increase more than the increase, if any, in the Consumer Price Index. This is partially due to our relatively high fixed-cost structure, which is difficult to quickly adjust to match shifting volume levels and vendor costs, and may not correlate with the Consumer Price Index or the waste industry.

Weakness in the economy may expose us to credit risk of governmental entities and municipalities and other major customers, which could negatively impact our financial results.

We provide service to a number of governmental entities, municipalities, and large national accounts. During periods of economic weakness, governmental entities and municipalities can suffer significant financial difficulties, due in part to reduced tax revenue and/or high cost structures. During these periods, such entities, and our non-governmental customers, could be unable to pay amounts owed to us or renew contracts with us at previous or increased rates.

Purchasers of our recycling commodities can be particularly vulnerable to financial difficulties in times of commodity price volatility. The inability of our customers to pay us in a timely manner or to pay increased rates, particularly large national accounts, could negatively affect our operating results.

In addition, the financial difficulties of municipalities could result in a decline in investors' demand for municipal bonds and a correlating increase in interest rates. As of December 31, 2021, we had $645 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months and $54 million of variable-rate tax-exempt bonds with interest rates reset on a weekly basis. If market dynamics resulted in repricing of our tax-exempt bonds at significantly higher interest rates, we would incur increased interest expenses that may negatively affect our operating results and cash flows.

The Company's effective tax rate and tax liability could materially change as a result of the adoption of new tax legislation and other factors.

Predominantly all of the Company's revenues are generated in the U.S., and changes in U.S. tax laws could materially impact our effective tax rate, financial condition and results of operations. The U.S. Tax Cuts and Jobs Act, enacted on December 22, 2017 (the "Tax Act"), had a significant impact on our effective tax rate, cash tax expenses and net deferred tax liabilities. The Tax Act reduced the U.S. corporate statutory tax rate and eliminated or limited the deduction of several expenses that were previously deductible, among other things. However, future changes in tax laws could reverse the impacts of the Tax Act, and the current presidential administration has previously indicated support for increasing the U.S. corporate statutory tax rate. If ultimately enacted into law, such an increase could materially impact our tax provision, cash tax liability, effective tax rate and net deferred tax liabilities.

Significant shortages in diesel fuel supply or increases in diesel fuel prices will increase our operating expenses.

The price and supply of diesel fuel can fluctuate significantly based on international, political and economic circumstances, as well as other factors outside our control, such as actions by the Organization of the Petroleum Exporting Countries ("OPEC") and other oil and gas producers, regional production patterns, weather conditions and environmental concerns. We need diesel fuel to run a significant portion of our collection and transfer trucks and our equipment used in our landfill operations. Fuel supply shortages and price increases could substantially increase our operating expenses. We have in place a fuel surcharge program, designed to offset increased fuel expenses; however, we may not be able to pass through all of our increased costs and some customers' contracts prohibit any pass-through of the increased costs. Additionally, lawsuits have challenged our fuel and environmental charges included on our invoices. Regardless of any offsetting surcharge programs, increased operating costs due to higher diesel fuel prices will decrease our income from operations margins.

Technology and Information Security Risks

Developments in technology could trigger a fundamental change in the waste management industry, as waste streams are increasingly viewed as a resource, which may adversely impact volumes at our landfills and our profitability.

Our Company and others have recognized the value of the traditional waste stream as a potential resource. Research and development activities are on-going to provide disposal alternatives that maximize the value of waste, including using waste as a source for renewable energy and other valuable by-products. We and many other companies are investing in these technologies. It is possible that such investments and technological advancements may reduce the cost of waste disposal or the value of landfill gas recovery to a level below our costs and may reduce the demand for landfill space. As a result, our revenues and margins could be adversely affected due to advancements in disposal alternatives.

If we are not able to develop new service offerings and protect intellectual property or if a competitor develops or obtains exclusive rights to a breakthrough technology, our financial results may suffer.

Our existing and proposed service offerings to customers require that we invest in, develop or license, and protect new technologies. Our Company and others are increasingly focusing on new technologies that innovate our operations, improve the customer experience and provide alternatives to traditional disposal and maximize the resource value of waste. We are continuing our multi-year commitment to strategic investments in technology, including accelerated investments in customer service digitalization. Research, development and implementation of enhanced technology often requires significant spending that may divert capital investment away from our traditional business operations. We may experience difficulties or delays in the research, development, production and/or marketing of new products and services or implementation of technologies in which we have invested, which may negatively impact our operating results and prevent us from recouping or realizing a return on these investments. Further, protecting our intellectual property rights and combating unlicensed copying and use of intellectual property is difficult, and inability to obtain or protect new technologies could impact our services to customers and development of new revenue sources. If a competitor develops or obtains exclusive rights to a "breakthrough technology" that provides a revolutionary change in traditional waste management, or if we have inferior intellectual property to our competitors, our financial results may suffer.

We are increasingly dependent on technology in our operations and if our technology fails, our business could be adversely affected.

We may experience problems with the operation of our current information technology systems or the technology systems of third parties on which we rely, as well as the development and deployment of new information technology systems, that could adversely affect, or even temporarily disrupt, all or a portion of our operations until resolved. Inabilities and delays in implementing new systems can also affect our ability to realize projected cost savings or other benefits. Significant system failures could impede our ability to timely collect and report financial results in accordance with applicable laws and regulations. Employee work-from-home arrangements prompted by the COVID-19 pandemic increase various technology risks, including potential exposure to cyber incidents, loss of data, fraud, internal control challenges and other disruptions as a consequence of more employees accessing Company systems and information remotely in the course of their ordinary work.

We are implementing a new enterprise resource planning and human capital management system, and challenges with the implementation of the system may impact our business and operations.

We are in the process of a complex, multi-year implementation of a new enterprise resource planning and human capital management ("ERP/HCM") system. The ERP/HCM system implementation requires the integration of the new system with multiple new and existing information systems and business processes and is designed to accurately maintain our books and records and provide information to our management team important to the operation of the business. Such an implementation is a major undertaking from a financial, management, and personnel perspective, and we have made interim adjustments to our implementation timeline to accommodate aspects that have proven more difficult, or time consuming than initially predicted. Any material disruptions, delays, deficiencies or cost increases associated with the design and implementation of our new ERP/HCM system could adversely affect our ability to produce timely and accurate financial statements or comply with applicable regulations, resulting in negative impacts on our business and operations and subject us to potential liability. Additionally, our implementation of the ERP/HCM system involves greater utilization of third-party "cloud" computing services in connection with our business operations. Problems faced by us or our third-party providers, including technological or business-related disruptions, as well as cybersecurity threats, could adversely impact our business, results of operations and financial condition for future periods.

Significant cybersecurity incidents negatively impact our business and our relationships with customers, vendors and employees and expose us to increased liability.

Substantially all aspects of our business operations rely on digital technology. We use computers, mobile devices, social networking and other online platforms to connect with our employees, customers, and vendors. These uses give rise to cybersecurity risks, including security breach, espionage, system disruption, theft and inadvertent release of information. Our business involves the storage and transmission of numerous classes of sensitive and/or confidential information and intellectual property, including customers' personal information, private information about employees, and financial and strategic information about the Company and its business partners. We also rely on a Payment Card Industry compliant third party to protect our customers' credit card information.

We are regularly the target of attempted cyber intrusions, and we must commit substantial resources to continuously monitor and further develop our networks and infrastructure to prevent, detect, and address the risk of unauthorized access, misuse, computer viruses and other events. Our security programs and measures do not prevent all intrusions. Cyber intrusions require a significant amount of time and effort to assess and remedy, and our incident response efforts may not be effective in all cases. The Company experienced a cyber intrusion in the first quarter of 2021 that was promptly detected, and the third-party software vulnerability was quickly remediated. There was no impact to the Company's operations, services or financial statements. A subsidiary of WMI provided notice to potentially affected individuals, U.S. state and federal regulators, and Canadian regulators. As a result of the cyber intrusion, regulatory investigations may result in costs, fines, penalties, or other obligations. Additionally, a subsidiary of WMI is party to a class action case related to this incident. The Company intends to vigorously defend itself against any such proceedings and does not expect that the outcome of any proceedings related to the 2021 incident will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows; however, assessing and responding to this intrusion required a significant amount of time and management attention. An incident that results in a material theft, destruction, loss, misappropriation, or release of sensitive and/or confidential information or intellectual property, or material interference with our information technology systems or the technology systems of third parties on which we rely, could result in business disruption, direct financial loss, negative publicity, brand damage, alleged violation of privacy laws, loss of customers, potential regulatory enforcement or private litigation liability and competitive disadvantage. While we do maintain insurance for cyber incidents, due to policy terms, limits and exclusions, it may not apply in all cases, and it may not be adequate to cover all liabilities incurred.

As the Company pursues its strategy to grow through acquisitions and to pursue new initiatives that improve our operations and cost structure, the Company is also expanding and improving its information technologies, resulting in a larger technological presence and corresponding exposure to cybersecurity risk. Certain new technologies, such as use of autonomous vehicles, remote-controlled equipment and virtual reality, present new and significant cybersecurity safety risks that must be analyzed and addressed before implementation. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks.

Increased regulation by state and federal governments related to cybersecurity protections and disclosures may require additional resources for compliance, and any inability, or perceived inability, to adequately address new requirements could subject us to regulatory enforcement, private litigation, public criticism, disrupt our operations, cause us to lose customers, result in additional costs and legal liability, damage our reputation, and otherwise harm our business.

Increasing regulatory focus on privacy and data protection issues and expanding laws could negatively impact our business, subject us to criticism and expose us to increased liability.

The legislative and regulatory framework for privacy and data protection issues worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. We collect certain personally identifiable information and other sensitive information as integral parts of our business and in connection with providing services to our customers. We are subject to a variety of laws and regulations that govern the collection and use of such information obtained from individuals and businesses. These laws and regulations are inconsistent across jurisdictions and are subject to evolving interpretations. Government officials, regulators, privacy advocates and class action attorneys are increasingly scrutinizing how companies collect, process, use, store, share and transmit personal data. We must continually monitor the development and adoption of new and emerging laws and regulations and commit substantial time and resources towards compliance with new laws and regulations. These laws provide disclosure obligations for businesses that collect personal information, individual rights relating to personal information, collection and storage requirements, automated decision-making transparency, and potential liability expansion. Any inability, or perceived inability, to adequately address privacy and data protection concerns, even if unfounded, or comply with applicable laws, regulations, policies, industry standards, contractual obligations, or other legal obligations, including at newly acquired companies, could subject us to regulatory enforcement, private litigation, public criticism, disrupt our operations, cause us to lose customers, result in additional costs and legal liability, damage our reputation, and otherwise harm our business.

Legal, Regulatory and Compliance Risks

Our operations are subject to environmental, health and safety laws and regulations, as well as contractual obligations that may result in significant liabilities.

There is risk of incurring significant environmental liabilities in the use, treatment, storage, transfer and disposal of waste materials. Under applicable environmental laws and regulations, we could be liable if it is alleged that our operations cause environmental damage to our properties or to the property of other landowners, particularly as a result of the contamination of air, drinking water or soil. Under current law, we could also be held liable for damage caused by conditions that existed before we acquired the assets or operations involved and for conditions resulting from waste types or compounds previously considered non-hazardous but later determined to present possible threat to public health or the environment. The risks of successor liability and emerging contaminants are of particular concern as we execute our growth strategy, partially through acquisitions, because we may be unsuccessful in identifying and assessing potential liabilities during our due diligence investigations. Further, the counterparties in such transactions may be unable to perform their indemnification obligations owed to us. Any substantial liability for environmental damage could have a material adverse effect on our financial condition, results of operations and cash flows.

In the ordinary course of our business, we have in the past, we are currently, and we may in the future, become involved in legal and administrative proceedings relating to land use and environmental laws and regulations. These include proceedings in which governmental entities, private groups or individuals seek to impose liability on us for alleged environmental damage or violation of statutes or desire to revoke or deny permits required for our operations. We generally seek to work with the authorities or other persons involved in these proceedings to resolve any issues raised. If we are not successful, the adverse outcome of one or more of these proceedings could result in, among other things, material increases in our costs or liabilities as well as material charges for asset impairments.

Further, we often enter into agreements with landowners imposing obligations on us to meet certain regulatory or contractual conditions upon site closure or upon termination of the agreements. Compliance with these agreements inherently involves subjective determinations and may result in disputes, including litigation. Costs to remediate or restore the condition of closed sites may be significant.

Changes to federal and state renewable fuel policies could affect our financial performance in that sector as a renewable fuel producer and impact our projected future investments.

The primary drivers of renewable fuel development at our landfills are federal and state incentive programs, such as the federal RFS program and the California Low Carbon Fuel Standard. At the federal level, oil refiners and importers are required through the RFS program to blend specified volumes of renewable transportation fuels with gasoline or buy credits, referred to as RINs, from renewable fuel producers. The Company has invested, and continues to invest, in facilities that capture and convert landfill and dairy digester gas into renewable natural gas so that we can participate in the program, and the Company has stated its intention to grow its asset base to notably increase its RNG production by 2026. RINs prices generally respond to regulations enacted by the EPA or other regulatory bodies, as well as fluctuations in supply and demand. The value of the RINs associated with renewable natural gas is set through a market established by the program. Each year, the EPA is required to finalize a rule establishing refiners' obligations to purchase renewable natural gas and other cellulosic biofuels under the RFS program. Market uncertainty stemming from these annual rulemakings, as well as the EPA's administration of other aspects of the RFS program, led to a rapid decline in RIN values in 2019 and much of 2020 before rebounding in November 2020. We will continue to advocate for the current administration to implement policies that ensure long-term stability for renewable transportation fuels. Changes in the RFS market, the structure of the RFS program or RINs prices and demand can and has impacted the financial performance of the facilities constructed to capture and treat the gas and could impact or alter our projected future investments.

The impact of climate change, and the adoption of climate change legislation or regulations restricting emissions of greenhouse gases, could increase our costs to operate.

We continue to assess the physical risks to our operations from the effects of climate change. Although we have made investments to mitigate risk associated with severe storm events, damage to our facilities or disruption of service caused by more frequent or more severe storms associated with climate extremes could negatively impact operating results. We have also identified risk to our assets and our employees associated with drought or water scarcity, flooding, extreme heat and rain events, and fire conditions associated with climate change. For example, wildfires influenced by climate change can damage landfill infrastructure such as gas collection systems, flooding in low-lying areas enhanced by sea level rise can result in greater maintenance expenses at our facilities and service disruption, and more frequent or extreme rain events can erode the protective vegetative caps on our landfills and generate increased volumes of leachate to manage. Those areas of the country most prone to these occurrences have protocols in place, or are developing protocols to address these conditions, including employee safety, driver training, and equipment and facility protection protocols. We have incurred and will incur costs to develop and implement these protocols, and these protocols may not be effective in offsetting these risks. Additionally, the actions of others in response to climate change effects, such as the rolling power blackouts implemented in California in 2019 due to wildfire risks, can result in service disruptions and increase our costs to operate.

Our landfill operations emit methane, identified as a GHG. There are a number of legislative and regulatory efforts at the state, provincial, regional and federal levels to cap and/or curtail the emission of GHGs to ameliorate the effect of climate change. We continue to monitor these efforts and the potential impacts to our operations. Should comprehensive federal climate change legislation be enacted, we expect it could impose costs on our operations that might not be offset by the revenue increases associated with our lower-carbon service options, the materiality of which we cannot predict.

We could be subject to significant fines and penalties, and our reputation could be adversely affected, if our businesses, or third parties with whom we have a relationship, were to fail to comply with U.S. or foreign laws or regulations.

Some of our projects and new business may be conducted in countries where corruption has historically been prevalent. It is our policy to comply with all applicable anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act, and with applicable local laws of the foreign countries in which we operate, and we monitor our local partners' compliance with such laws as well. Our reputation may be adversely affected if we were reported to be associated with corrupt practices or if we or our local partners failed to comply with such laws. Additionally, violations of such laws could subject us to significant fines and penalties.

Currently pending or future litigation or governmental proceedings could result in material adverse consequences, including judgments or settlements.

As a large company with operations across the U.S. and Canada, we are subject to various proceedings, lawsuits, disputes and claims arising in the ordinary course of our business, including governmental proceedings. Actions that have been filed against us, and that may be filed against us in the future, include personal injury, property damage, commercial, customer, and employment-related claims, including purported state and national class action lawsuits related to:

- alleged environmental contamination, including releases of hazardous materials and odors;
- sales and marketing practices, customer service agreements, prices and fees; and
- federal and state wage and hour and other laws.

The timing of the final resolutions to these types of matters is often uncertain. Additionally, the possible outcomes or resolutions to these matters could include adverse judgments or settlements, either of which could require substantial payments, adversely affecting our liquidity.

Financial Risks

Our capital requirements and our business strategy could increase our expenses, cause us to change our growth and development plans, or result in an inability to maintain our desired credit profile.

If economic conditions or other risks and uncertainties cause a significant reduction in our cash flows from operations, we may reduce or suspend capital expenditures, growth and acquisition activity, implementation of our business strategy, dividend declarations or share repurchases. We may choose to incur indebtedness to pay for these activities, although our access to capital markets is not assured and we may not be able to incur indebtedness at a cost that is consistent with current borrowing rates. We also may need to incur indebtedness to refinance scheduled debt maturities, and it is possible that the cost of financing could increase significantly, thereby increasing our expenses and decreasing our net income. Further, our ability to execute our financial strategy and our ability to incur indebtedness is somewhat dependent upon our ability to maintain investment grade credit ratings on our senior debt. The credit rating process is contingent upon our credit profile and several other factors, many of which are beyond our control, including methodologies established and interpreted by third-party rating agencies. If we were unable to maintain our investment grade credit ratings in the future, our interest expense would increase and our ability to obtain financing on favorable terms could be adversely affected.

Additionally, we have $2.5 billion of debt as of December 31, 2021 that is exposed to changes in market interest rates within the next 12 months because of the impact of our commercial paper borrowings and tax-exempt bonds. If interest rates increase, our interest expense would also increase, lowering our net income and decreasing our cash flow.

We may use our $3.5 billion revolving credit facility to meet our cash needs, to the extent available, until maturity in November 2024. As of December 31, 2021, we had no outstanding borrowings under this facility. We had $167 million of letters of credit issued and $1.8 billion of outstanding borrowings (net of related discount on issuance) under our commercial paper program, both supported by this facility, leaving unused and available credit capacity of $1.5 billion as of December 31, 2021. In the event of a default under our credit facility, we could be required to immediately repay all outstanding borrowings and make cash deposits as collateral for all obligations the facility supports, which we may not be able to do. Additionally, any such default could cause a default under many of our other credit agreements and debt instruments. Without waivers from lenders party to those agreements, any such default would have a material adverse effect on our ability to continue to operate.

We have substantial financial assurance and insurance requirements and increases in the costs of obtaining adequate financial assurance, or the inadequacy of our insurance coverages, could negatively impact our liquidity and increase our liabilities.

The amount of insurance we are required to maintain for environmental liability is governed by statutory requirements. We also carry a broad range of other insurance coverages that are customary for a company our size. To the extent our obligations for claims are more than we estimated, our insurance coverage is inadequate to cover our obligations, or our insurers are unable to meet their obligations, the requirement that we pay such obligations could have a material adverse effect on our financial results.

In addition, to fulfill our financial assurance obligations with respect to variable-rate tax-exempt debt, and final capping, closure, post-closure and environmental remediation obligations, we generally obtain letters of credit or surety bonds, rely on insurance, including captive insurance, fund trust and escrow accounts or rely upon WMI financial guarantees. Our financial position, which can be negatively affected by asset impairments, our credit profile and general economic factors, may increase the cost of our current financial assurance instruments, and changes in regulations may impose stricter requirements on the types of financial assurance that will be accepted. In the event we are unable to obtain sufficient surety bonding, letters of credit or third-party insurance coverage at reasonable cost, or one or more states cease to view captive insurance as adequate coverage, we would need to rely on other forms of financial assurance. It is possible that we could be required to deposit cash to collateralize certain obligations, which could negatively impact our liquidity.

We may record material charges against our earnings due to impairments to our assets.

In accordance with U.S. Generally Accepted Accounting Principles (“GAAP”), we capitalize certain expenditures and advances relating to disposal site development, expansion projects, acquisitions, software development costs and other projects. Events that have in the past and may in the future lead to an impairment include, but are not limited to, shutting down a facility or operation or abandoning a development project or the denial of an expansion permit. Additionally, declining waste volumes and development of, and customer preference for, alternatives to traditional waste disposal could warrant asset impairments. If we determine an asset or expansion project is impaired, we will charge against earnings any unamortized capitalized expenditures and advances relating to such asset or project reduced by any portion of the capitalized costs that we estimate will be recoverable, through sale or otherwise. We also carry a significant amount of goodwill on our Consolidated Balance Sheets, which is required to be assessed for impairment annually, and more frequently in the case of certain triggering events. We have in the past and may in the future be required to incur charges against earnings if such impairment tests indicate that the fair value of a reporting unit is below its carrying amount. Any such charges could have a material adverse effect on our results of operations.

We could face significant liabilities for withdrawal from Multiemployer Pension Plans.

We are a participating employer in a number of trustee-managed multiemployer defined benefit pension plans ("Multiemployer Pension Plans") for employees who are covered by collective bargaining agreements. In the event of our withdrawal from a Multiemployer Pension Plan, we may incur expenses associated with our obligations for unfunded vested benefits at the time of the withdrawal. Depending on various factors, including potential legislative changes, future withdrawals could have a material adverse effect on results of operations or cash flows for a particular reporting period, and our on-going costs of participation in Multiemployer Pension Plans may increase. See Notes 9 and 10 to the Consolidated Financial Statements for more information related to our participation in Multiemployer Pension Plans.

Item 1B. *Unresolved Staff Comments.*

None.

Item 2. *Properties.*

Our principal executive offices are in Houston, Texas where we lease approximately 297,000 square feet under a lease expiring in 2035. We also have administrative offices in Arizona, Connecticut, Illinois and India. We own or lease real property in most locations where we have operations or administrative functions. We have operations in all 50 states except Montana, the District of Columbia and throughout Canada.

Our principal property and equipment consist of land (primarily landfills and other disposal facilities, transfer stations and bases for collection operations), buildings, vehicles and equipment. We believe that our operating properties, vehicles and equipment are adequately maintained and sufficient for our current operations. However, we expect to continue to make investments in additional property and equipment for expansion, for the replacement of aging assets and investment in assets that support our strategy of continuous improvement through efficiency and innovation. For more information, see Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations* included within this report.

The following table summarizes our various operations as of December 31:

	2021	2020
Landfills owned or operated (a)	260	268
Transfer stations	340	348
Material recovery facilities	96	103

(a) As of December 31, 2021 and 2020, our landfills owned or operated consisted of total acreage of 173,071 and 172,217; permitted acreage of 45,897 and 45,642; and expansion acreage of 674 and 716, respectively. Total acreage includes permitted acreage, expansion acreage, other acreage available for future disposal that has not been permitted, buffer land and other land. Permitted acreage consists of all acreage at the landfill encompassed by an active permit to dispose of waste. Expansion acreage consists of unpermitted acreage where the related expansion efforts meet our criteria to be included as expansion airspace. A discussion of the related criteria is included within Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Estimates and Assumptions* included within this report.

Item 3. ***Legal Proceedings.***

Information regarding our legal proceedings can be found under the *Environmental Matters* and *Litigation* sections of Note 10 to the Consolidated Financial Statements included within this report.

Item 4. ***Mine Safety Disclosures.***

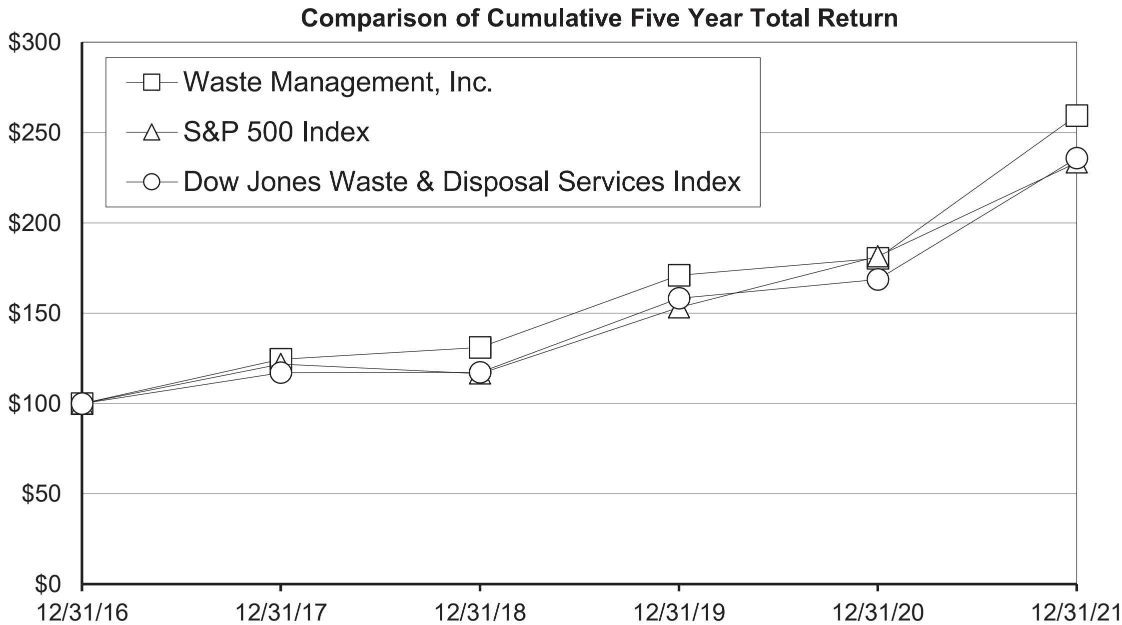
Information concerning mine safety and other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this annual report.

PART II

Item 5. ***Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.***

Our common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "WM." The number of holders of record of our common stock on February 9, 2022 was 8,099.

The graph below shows the relative investment performance of Waste Management, Inc. common stock, the S&P 500 Index and the Dow Jones Waste & Disposal Services Index for the last five years, assuming reinvestment of dividends at date of payment into the common stock. The graph is presented pursuant to SEC rules and is not meant to be an indication of our future performance.



	12/31/16	12/31/17	12/31/18	12/31/19	12/31/20	12/31/21
Waste Management, Inc.	$ 100	$ 124	$ 131	$ 171	$ 180	$ 259
S&P 500 Index	$ 100	$ 122	$ 116	$ 153	$ 181	$ 233
Dow Jones Waste & Disposal Services Index	$ 100	$ 117	$ 117	$ 158	$ 169	$ 236

The Company repurchases shares of its common stock as part of capital allocation programs authorized by our Board of Directors. During 2021, we allocated an aggregate of $1.35 billion in cash under our accelerated share repurchase ("ASR") agreements. As of December 31, 2021, we had received 8.7 million shares with a weighted average price per share of $146.61. In January 2022, we completed our ASR agreement executed in December 2021, at which time we received an additional 0.4 million shares. See Note 13 to the Consolidated Financial Statements for additional information.

The following table summarizes common stock repurchases made during the fourth quarter of 2021 (shares in millions):

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Maximum Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
October 1 — 31	—	$ —	—	$ 350 million
November 1 — 30	—	$ —	—	$ 350 million
December 1 — 31	2.2	$ 159.32 (a)	2.2	$ 1.5 billion (b)
Total	2.2	$ 159.32	2.2	

(a) In August 2021, we entered into an ASR agreement to repurchase $500 million of our common stock. At the beginning of the repurchase period, we delivered $500 million in cash and received 2.7 million shares based on a stock price of $147.27. The ASR agreement completed in the fourth quarter of 2021, at which time we received 0.5 million additional shares based on a final weighted average price of $154.72.

In December 2021, we executed an ASR agreement to repurchase $350 million of our common stock. At the beginning of the repurchase period, we delivered $350 million in cash and received 1.7 million shares based on a stock price of $160.67. The ASR agreement completed in January 2022, at which time we received 0.4 million additional shares based on a final weighted average price of $160.33.

The "Average Price Paid per Share" in the table represents the final weighted average price per share paid for the ASR agreement executed in August 2021 and the initial price per share paid for the ASR agreement executed in December 2021.

(b) We announced in December 2021 that the Board of Directors has authorized up to $1.5 billion in future share repurchases.

Any future share repurchases will be made at the discretion of management and will depend on various factors including our net earnings, financial condition and cash required for future business plans, growth and acquisitions.

Item 6. *[Reserved]*

None.

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations.*

This section includes a discussion of our results of operations for the three years ended December 31, 2021. This discussion may contain forward-looking statements that anticipate results based on management's plans that are subject to uncertainty. We discuss in more detail various factors that could cause actual results to differ materially from expectations in Item 1A. *Risk Factors*. The following discussion should be read considering those disclosures and together with the Consolidated Financial Statements and the notes thereto.

Overview

We are North America's leading provider of comprehensive waste management environmental services, providing services throughout the United States ("U.S.") and Canada. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. We own or operate the largest network of landfills throughout the U.S. and Canada. In order to make disposal more practical for larger urban markets, where the distance to landfills is typically farther, we manage transfer stations that consolidate, compact and transport waste efficiently and economically. We also use waste to create energy, recovering the gas produced naturally as waste decomposes in landfills and using the gas in generators to make electricity or natural gas. Additionally, we are a leading recycler in the U.S. and Canada, handling materials that include paper, cardboard, glass, plastic and metal. Our "Solid Waste" business is operated and managed locally by our subsidiaries that focus on distinct geographic areas and provide collection, transfer, disposal, and recycling and resource recovery services. Consistent with our Company's long-standing commitment to sustainability and environmental stewardship, we published our 2021 Sustainability Report, which details our people-first commitment to help make the communities in which we live and work safe, resilient and sustainable. The information in this report can be found at https://sustainability.wm.com but it does not constitute a part of, and is not incorporated by reference into, this Annual Report on Form 10-K. For further discussion see section "*Regulation – Emerging Trends in Policy and Regulation – Climate and Sustainability*" in Item 1.

In 2021, our senior management began evaluating, overseeing and managing the financial performance of our Solid Waste operations through two operating segments. Our East Tier primarily consists of geographic areas located in the Eastern U.S., the Great Lakes region and substantially all of Canada. Our West Tier primarily includes geographic areas located in the Western U.S., including the upper Midwest region, and British Columbia, Canada. Each of our Solid Waste operating segments provides integrated environmental services, including collection, transfer, recycling, and disposal. The Company finalized the assessment of our segments during the fourth quarter of 2021. The East and West Tiers are presented in this report and constitute our existing Solid Waste business.

Our Solid Waste operating revenues are primarily generated from fees charged for our collection, transfer, disposal, and recycling and resource recovery services, and from sales of commodities by our recycling and landfill gas-to-energy operations. Revenues from our collection operations are influenced by factors such as collection frequency, type of collection equipment furnished, type and volume or weight of the waste collected, distance to the disposal facility or material recovery facility and our disposal costs. Revenues from our landfill operations consist of tipping fees, which are generally based on the type and weight or volume of waste being disposed of at our disposal facilities. Fees charged at transfer stations are generally based on the weight or volume of waste deposited, taking into account our cost of loading, transporting and disposing of the solid waste at a disposal site. Recycling revenues generally consist of tipping fees and the sale of recycling commodities to third parties. The fees we charge for our services generally include our environmental, fuel surcharge and regulatory recovery fees which are intended to pass through to customers direct and indirect costs incurred. We also provide additional services that are not managed through our Solid Waste business, described under *Results of Operations* below.

Acquisition of Advanced Disposal Services, Inc. ("Advanced Disposal")

On October 30, 2020, we completed our acquisition of all outstanding shares of Advanced Disposal for $30.30 per share in cash, pursuant to an Agreement and Plan of Merger dated April 14, 2019, as amended on June 24, 2020. Total enterprise value of the acquisition was $4.6 billion when including approximately $1.8 billion of Advanced Disposal's net debt. This acquisition grew our footprint and allows us to provide differentiated, sustainable waste management and recycling services to approximately three million new commercial, industrial and residential customers primarily located in the Eastern half of the U.S. The acquisition was funded using a $3.0 billion, 364-day, U.S. revolving credit facility ("364-day revolving credit facility") and our commercial paper program. In November 2020, we issued $2.5 billion of senior notes and used a portion of the proceeds to repay all outstanding borrowings under the 364-day revolving credit facility at which time it was terminated. As a result of the acquisition we recorded $4.1 billion of net assets including $2.5 billion of goodwill as of December 31, 2020. Post-closing adjustments to our purchase price allocation were not material.

In connection with our acquisition of Advanced Disposal, we and Advanced Disposal entered into an agreement that provided for GFL Environmental to acquire a combination of assets from us and Advanced Disposal to address divestitures required by the U.S. Department of Justice. Immediately following the acquisition, the divestiture transactions were consummated and the Company subsequently received cash proceeds from the sale of $856 million.

See Note 11 and 17 to the Consolidated Financial Statements for more information.

For the year ended December 31, 2021, we incurred $51 million of integration related costs, and for the year ended December 31, 2020, we incurred $156 million of acquisition and integration related costs, which were primarily classified as “Selling, general and administrative expenses”. The post-closing operating results of Advanced Disposal have been included in our consolidated financial statements, within our existing reportable segments. Post-closing through December 31, 2020, Advanced Disposal recognized $205 million, $142 million and $60 million of revenue, operating expenses and selling, general and administrative expenses, respectively, which are included in our Consolidated Statement of Operations. During 2021, we made significant progress on our integration of Advanced Disposal. The focus of these efforts has been to ensure that we continue to provide uninterrupted service to our customers through the integration of certain customer facing and back office digital platforms.

COVID-19 Update

Throughout the COVID-19 pandemic, the Company has proactively taken steps to put our employees’ and customers’ needs first and we continue to work with the appropriate regulatory agencies to ensure we can provide our essential services safely and efficiently. We continue to operate with a focus on protecting the health and safety of our employees and maintaining business continuity for our customers. These efforts, combined with our disciplined execution in our daily operations, have positioned the Company to prudently manage the challenges presented by COVID-19.

The impacts of COVID-19 on the global economy increased rapidly during the second quarter of 2020, affecting our business in most geographies and across a variety of our customer types. Over the last year, our volumes have been recovering from the sharp decline experienced in April 2020 as a result of COVID-19. The pace of recovery in our volumes accelerated in the second quarter of 2021, and continued in the back-half of 2021 with minimal impact from the resurgence in transmission of recent COVID-19 virus variants as communities and businesses remained open. The portions of our business that had the most pronounced decreases in volume due to the pandemic were our industrial and commercial collection businesses and construction and demolition and special waste volumes at our landfills. As we completed 2021, volumes in each of these lines of business were either on par with pre-pandemic levels or have now surpassed 2019 volumes. We continue to be optimistic about our volume recovery and overall economic recovery from the impacts of the COVID-19 pandemic. However, uncertainty remains with respect to various factors that influence the pace of economic recovery and the potential for future resurgence in transmission of COVID-19 and related business closures due to virus variants or otherwise. Such conditions could adversely impact our volumes and costs in the future.

Business Environment

The waste industry is a comparatively mature and stable industry. However, customers increasingly expect more of their waste materials to be recovered and those waste streams are becoming more complex. In addition, many state and local governments mandate diversion, recycling and waste reduction at the source and prohibit the disposal of certain types of waste at landfills. We monitor these developments to adapt our service offerings. As companies, individuals and communities look for ways to be more sustainable, we promote our comprehensive services that go beyond our core business of collecting and disposing of waste in order to meet their needs. This includes expanding traditional recycling services, increasing organics collection and processing, and expanding our renewable energy projects to meet the evolving needs of our diverse customer base. As the leading waste management environmental services provider in North America, we are taking big, bold steps in an effort to catalyze positive change – change that will impact our Company as well as the communities we serve. Our sustainability agenda includes expanding recycling and focuses on meeting or exceeding specific 2025 and 2038 sustainability goals around people, customers, the environment, and community, which align with eight of the United Nations Sustainable Development Goals.

We encounter intense competition from governmental, quasi-governmental and private service providers based on pricing, and to a much lesser extent, the nature of service offerings, particularly in the residential line of business. Our industry is directly affected by changes in general economic factors, including increases and decreases in consumer spending, business expansions and construction activity. These factors generally correlate to volumes of waste generated and impact our revenue. Negative economic conditions, including the impact of COVID-19, can and have caused customers to reduce their service needs. Such negative economic conditions, in addition to competitor actions, can and have made it more challenging to implement our pricing strategy and negotiate, renew or expand service contracts with acceptable margins. We also encounter competition for acquisitions and growth opportunities. General economic factors and the market for consumer goods, in addition to regulatory developments, can also significantly impact commodity prices for the recyclable materials we sell. Significant components of our operating expenses vary directly as we experience changes in revenue due to volume and a heightened pace of inflation. Volume changes can fluctuate dramatically by line of business and volume changes in higher margin businesses, such as what we saw with COVID-19, can impact key financial metrics. We must dynamically manage our cost structure in response to volume changes and cost inflation.

We believe the Company's industry-leading asset network and strategic focus on investing in our people and our digital platform will give the Company the necessary tools to address the evolving challenges impacting the Company and our industry. In line with our commitment to continuous improvement and a differentiated customer experience, we remain focused on our customer service digitalization initiative to change the way we interact with our customers. Enhancements made through this initiative are intended to seamlessly and digitally connect all the Company's functions required to service our customers in order to provide the best experience and service. Additionally, in early 2022, we substantially implemented our new enterprise resource planning system which will drive operational and service excellence by empowering our people through a modern, simplified and connected employee experience.

Certain macroeconomic pressures and market disruption, driven in part by the COVID-19 pandemic, intensified during the second half of 2021 and are continuing. The constrained labor market has resulted in increased costs for wage adjustments, overtime hours and training new hires to address frontline employee turnover, increased volume, and operational challenges servicing customers. The COVID-19 pandemic and the constrained labor market have also contributed to significant global supply chain disruption and inflationary pressure for the goods and services we purchase, with a particular impact on our repair and maintenance costs. Supply chain constraints have also caused delayed delivery of fleet, steel containers and other purchases. Aspects of our business rely on third-party transportation providers, and such services have become more limited and expensive. Additionally, we are currently experiencing margin pressures from commodity-driven business impacts, particularly from recycling brokerage rebates and higher fuel prices. The extent and duration of the impact of these labor market, supply chain and transportation challenges are subject to numerous factors, including the continuing impact of the COVID-19 pandemic; size, location and qualifications of the labor pool; behavioral changes; wage and price structures; adoption of new or revised regulations, including vaccine mandates; and broader macroeconomic conditions. As costs increase, we focus on our strategic pricing efforts, as well as operating efficiencies and cost controls, to maintain and grow our earnings and cash flow. With increased pressure from the strong economic recovery, particularly on labor, we remain focused on putting our people first to ensure that they are well positioned to diligently and safely execute our daily operations. We are encouraged by our results in 2021 and remain focused on delivering outstanding customer service, managing our variable costs with changing volumes and investing in technology that will enhance our customers' experience and reduce our cost to serve.

Current Year Financial Results

During 2021, we delivered strong revenue and income from operations as we continued to experience higher yield and volume recovery in our landfill, commercial and industrial collection businesses and benefited from the acquisition of Advanced Disposal. However, our income from operations was impacted by constraints on labor availability and inflationary cost pressures, primarily in the second half of 2021. We continue to invest in our people through market wage adjustments, investments in our digital platform and training for new team members. In addition, we are focused on executing on our disciplined pricing programs to drive margin growth in the face of these additional labor cost and inflationary pressures. We also made significant investments in recycling automation technology and customer service digitalization to further support our continued focus on optimizing operational efficiency as well as achieving improved labor productivity for all lines of business. During 2021, the Company allocated $1,904 million of available cash to capital expenditures. We also allocated $2,320 million of available cash to our shareholders during 2021 through dividends and common stock repurchases.

Key elements of our 2021 financial results include:

- Revenues of $17,931 million for 2021 compared with $15,218 million in 2020, an increase of $2,713 million, or 17.8%. The increase is primarily attributable to (i) the acquisition of Advanced Disposal; (ii) record-high increases in the market prices for recycling commodities we sell; (iii) higher yield in our collection and disposal lines of business and (iv) strong volume growth;

- Operating expenses of $11,111 million in 2021, or 62.0% of revenues, compared with $9,341 million, or 61.4% of revenues, in 2020. The $1,770 million increase is primarily attributable to (i) increased volumes from the acquisition of Advanced Disposal; (ii) commodity-driven business impacts, particularly from recycling brokerage rebates and higher fuel prices, which also meaningfully impacted our operating expense as a percentage of revenue; (iii) volume recovery from earlier pandemic lows; (iv) labor cost pressure from frontline employee wage adjustments, increased turnover driving up training costs and higher overtime due to driver shortages and volume growth and (v) inflationary cost pressures, primarily in the second half of 2021;

- Selling, general and administrative expenses of $1,864 million in 2021, or 10.4% of revenues, compared with $1,728 million, or 11.4% of revenues, in 2020. The $136 million increase is primarily attributable to (i) higher incentive compensation costs; (ii) strategic investments in our digital platform and (iii) increased labor, support and integration costs following our acquisition of Advanced Disposal. These cost increases are partially offset by (i) lower consulting, advisory and legal fees associated with our completion of the Advanced Disposal acquisition in 2020 and (ii) a decrease in our provision for bad debts as collections returned to pre-pandemic levels;

- Income from operations of $2,965 million, or 16.5% of revenues, in 2021 compared with $2,434 million, or 16.0% of revenues, in 2020. The improved earnings in the current year are driven by (i) strong operating results in our collection and disposal business; (ii) improved profitability in our recycling business; (iii) lower transaction-related costs following our 2020 acquisition of Advanced Disposal and (iv) improved profitability in our WM Renewable Energy business. The increase in income from operations was partially offset by (i) labor cost pressure from frontline employee wage adjustments, increased turnover driving up training costs and higher overtime due to driver shortages and volume growth; (ii) inflationary cost pressures and (iii) increased depreciation and amortization from our acquisition of Advanced Disposal and increased landfill amortization from higher volumes and revisions in landfill estimates. During 2021, the positive earnings contributions from Advanced Disposal were offset by elevated depreciation and amortization of acquired assets;

- Net income attributable to Waste Management, Inc. was $1,816 million, or $4.29 per diluted share, compared with $1,496 million, or $3.52 per diluted share, in the prior year period. The increase in income from operations discussed above, in addition to lower interest expense, drove an increase in net income which was partially offset by a loss on early extinguishment of debt;

- Net cash provided by operating activities was $4,338 million in 2021, compared with $3,403 million in 2020 with the improvement driven by (i) an increase in earnings; (ii) our acquisition of Advanced Disposal; (iii) lower interest payments; (iv) lower income taxes paid in the current year and (v) favorable changes in our working capital, net of effects of acquisitions and divestitures; and

- Free cash flow was $2,530 million in 2021, compared with $2,656 million in 2020. The decrease in free cash flow is primarily attributable to higher proceeds from divestitures in 2020 primarily related to assets required to be sold by the U.S. Department of Justice in connection with our acquisition of Advanced Disposal, partially offset by an increase in net cash provided by operating activities discussed above. Free cash flow is a non-GAAP measure of liquidity. Refer to *Free Cash Flow* below for our definition of free cash flow, additional information about our use of this measure, and a reconciliation to net cash provided by operating activities, which is the most comparable GAAP measure.

Results of Operations

Operating Revenues

Our Solid Waste operating revenues are primarily generated from fees charged for our collection, transfer, disposal, and recycling and resource recovery services, and from sales of commodities by our recycling and landfill gas-to-energy operations. We also provide additional services that are not managed through our Solid Waste business, including both our Strategic Business Solutions (“WMSBS”) and Energy and Environmental Services (“EES”) businesses, recycling brokerage services, landfill gas-to-energy services and certain other expanded service offerings and solutions. The mix of operating revenues from our major lines of business for the year ended December 31 are as follows (in millions):

	2021	2020	2019
Commercial	$ 4,760	$ 4,102	$ 4,229
Residential	3,172	2,716	2,613
Industrial	3,210	2,770	2,916
Other collection	533	465	482
Total collection	11,675	10,053	10,240
Landfill	4,153	3,667	3,846
Transfer	2,072	1,855	1,820
Recycling	1,681	1,127	1,040
Other (a)	2,112	1,776	1,758
Intercompany (b)	(3,762)	(3,260)	(3,249)
Total	$ 17,931	$ 15,218	$ 15,455

(a) The “Other” line of business includes (i) certain services provided by our WMSBS business; (ii) our landfill gas-to-energy operations managed by our WM Renewable Energy business; (iii) certain services within our EES business, including our construction and remediation services and our services associated with the disposal of fly ash and (iv) certain other expanded service offerings and solutions. In addition, our “Other” line of business reflects the results of non-operating entities that provide financial assurance and self-insurance support for our Solid Waste business, net of intercompany activity. Revenue attributable to collection, landfill, transfer and recycling services provided by our “Other” businesses has been reflected as a component of the relevant line of business for purposes of presentation in this table.

(b) Intercompany revenues between lines of business are eliminated in the Consolidated Financial Statements included within this report.

The following table provides details associated with the period-to-period change in revenues and average yield for the year ended December 31 (dollars in millions):

	2021 vs. 2020				2020 vs. 2019			
	Amount	As a % of Related Business(a)	Amount	As a % of Total Company(b)	Amount	As a % of Related Business(a)	Amount	As a % of Total Company(b)
Collection and disposal	$ 468	3.5 %			$ 299	2.2 %		
Recycling (c)	537	51.5			75	7.6		
Fuel surcharges and other (d)	240	36.9			(151)	(24.7)		
Total average yield (e)			$ 1,245	8.2 %			$ 223	1.5 %
Volume (d)			435	2.8			(692)	(4.5)
Internal revenue growth			1,680	11.0			(469)	(3.0)
Acquisitions			1,032	6.8			248	1.7
Divestitures			(49)	(0.3)			(8)	(0.1)
Foreign currency translation			50	0.3			(8)	(0.1)
Total			$ 2,713	17.8 %			$ (237)	(1.5)%

(a) Calculated by dividing the increase or decrease for the current year by the prior year's related business revenue adjusted to exclude the impacts of divestitures for the current year.

(b) Calculated by dividing the increase or decrease for the current year by the prior year's total Company revenue adjusted to exclude the impacts of divestitures for the current year.

(c) Includes combined impact of commodity price variability and changes in fees.

(d) Beginning in 2021, includes changes in our revenue attributable to our WM Renewable Energy business from yield, which is included in Fuel Surcharges and Other, and Volume.

(e) The amounts reported herein represent the changes in our revenue attributable to average yield for the total Company.

The following provides further details about our period-to-period change in revenues:

Average Yield

Collection and Disposal Average Yield — This measure reflects the effect on our revenue from the pricing activities of our collection, transfer and landfill operations, exclusive of volume changes. Revenue growth from collection and disposal average yield includes not only base rate changes and environmental and service fee fluctuations, but also (i) certain average price changes related to the overall mix of services, which are due to the types of services provided; (ii) changes in average price from new and lost business and (iii) price decreases to retain customers.

The details of our revenue growth from collection and disposal average yield for the year ended December 31 are as follows (dollars in millions):

	2021 vs. 2020		2020 vs. 2019	
	Amount	As a % of Related Business	Amount	As a % of Related Business
Commercial	$ 152	3.9 %	$ 91	2.4 %
Industrial	126	4.8	74	2.7
Residential	119	4.5	73	2.9
Total collection	397	4.2	238	2.5
Landfill	42	1.8	32	1.3
Transfer	29	2.9	29	3.0
Total collection and disposal	$ 468	3.5 %	$ 299	2.2 %

Our overall strategic pricing efforts are focused on recovering as much of the inflationary cost increases we experience in our business as possible by increasing our average unit rate. We experienced strong average yield growth in our collection line of business of 4.2% in 2021, up from 2.5% in 2020, showing our focus on our pricing efforts in this inflationary environment. We are driving improvements in our residential line of business, aligning the price charged for services we provide to our customers with the costs to provide the services, resulting in increased average yield in 2021 of 4.5%, up from 2.9% in 2020. We are also continuing to see growth in our landfill and transfer businesses with our municipal solid waste business experiencing 3.2% average yield growth for 2021 compared to 2.3% in 2020. A significant portion of our revenue is tied to a price escalation index with a lookback provision, which has resulted in a timing lag in our ability to recover increased costs under those contracts during this period of rapid inflation. Separately, for many of our customers we provide services under multi-year contracts that can restrict our ability to increase prices and the timing of such increases. As we enter 2022, many of these contract lookback provisions will begin to capture the recent inflationary cost increases.

Recycling — Recycling revenue increased $537 million and $75 million in 2021 and 2020, respectively, as compared with the prior year periods primarily from higher market prices for recycling commodities. Average market prices for recycling commodities at the Company's facilities were approximately 115% and 19% higher in 2021 and 2020, respectively, when compared with the prior year periods. Market prices began to increase in 2020 from the unprecedented lows experienced in 2019, largely due to COVID-19 related decreases in the supply of recycled materials. Demand for recycled materials strengthened in the back-half of 2020 and continued in 2021, outpacing supply, driven by the growth in e-commerce, businesses re-opening, and manufacturers committing to use more recycled content in their packaging. We have also maintained our focus on converting to a fee-based pricing model that ensures fees paid by customers address the cost of processing materials and the impact on our cost structure of managing contamination in the recycling stream.

Fuel Surcharges and Other — These fees, which include our fuel surcharge program, yield from our WM Renewable Energy business and other mandated fees, increased $240 million in 2021, as compared with 2020, and decreased $151 million in 2020 as compared with 2019. Fuel surcharge revenues are based on and fluctuate in response to changes in the national average prices for diesel fuel, and also vary with changes in our volume-based revenue activity. Market prices for diesel fuel were almost 30% higher in 2021, when compared with 2020, as diesel fuel prices began to increase towards the end of 2020 and continued to increase throughout 2021. Consistent with the general downturn in oil and gas markets in 2020, market prices for diesel fuel were approximately 16% lower in 2020, as compared to 2019. Additionally, we transitioned certain customers' pricing away from a fuel surcharge in 2020, reflecting the cost of fuel in the base rates we charge for our services, which further contributed to the decline in 2020 as compared with 2019. Revenue from our WM Renewable Energy business increased in 2021, as compared to 2020, primarily driven by the increase in value for renewable fuel standard credits. The other fees are primarily related to fees and taxes assessed by various state, county and municipal government agencies at our landfills and transfer stations. These amounts have not significantly impacted the change in revenue for the periods presented.

Volume

Our revenues from volume (excluding volumes from acquisitions and divestitures) increased $435 million, or 2.8%, in 2021, as compared with 2020, and decreased $692 million, or 4.5%, in 2020, as compared with 2019.

Over the last year, our volumes have been recovering from the sharp decline experienced in April 2020 as a result of COVID-19. The pace of recovery in our volumes accelerated in the second quarter of 2021 and continued in the back-half of 2021 with minimal impact from the resurgence in transmission of recent COVID-19 virus variants as communities and businesses remained open. The portions of our business that had the most pronounced decreases in volume due to the pandemic were our industrial and commercial collection businesses and our landfill volumes. As we completed 2021, volumes in each of these lines of business were either on par with pre-pandemic levels or have now surpassed 2019 volumes. We continue to be optimistic about volume recovery and overall economic recovery from the impacts of the COVID-19 pandemic. However, uncertainty remains with respect to various factors that influence the pace of economic recovery and the potential for future resurgence in transmission of COVID-19 and related business closures due to virus variants or otherwise. Such conditions could adversely impact our volumes in the future. In addition, our WMSBS business volume grew from our continued focus on a differentiated service model for national accounts customers.

Acquisitions and Divestitures

Acquisitions and divestitures resulted in a net increase in revenues of $983 million, or 6.5%, and $240 million, or 1.6%, in 2021 and 2020, respectively, as compared with the prior year periods, primarily due to our acquisition of Advanced Disposal.

Operating Expenses

Our operating expenses are comprised of (i) labor and related benefits costs (excluding labor costs associated with maintenance and repairs discussed below), which include salaries and wages, bonuses, related payroll taxes, insurance and benefits costs and the costs associated with contract labor; (ii) transfer and disposal costs, which include tipping fees paid to third-party disposal facilities and transfer stations; (iii) maintenance and repairs costs relating to equipment, vehicles and facilities and related labor costs; (iv) subcontractor costs, which include the costs of independent haulers who transport waste collected by us to disposal facilities and are affected by variables such as volumes, distance and fuel prices; (v) costs of goods sold, which includes the cost to purchase recycling materials for our recycling line of business, including certain rebates paid to suppliers; (vi) fuel costs, net of tax credits for alternative fuel, which represent the costs of fuel to operate our truck fleet and landfill operating equipment; (vii) disposal and franchise fees and taxes, which include landfill taxes, municipal franchise fees, host community fees, contingent landfill lease payments and royalties; (viii) landfill operating costs, which include interest accretion on landfill liabilities, interest accretion on and discount rate adjustments to environmental remediation liabilities and recovery assets, leachate and methane collection and treatment, landfill remediation costs and other landfill site costs; (ix) risk management costs, which include general liability, automobile liability and workers' compensation claims programs costs and (x) other operating costs, which include gains and losses on sale of assets, telecommunications, equipment and facility lease expenses, property taxes, utilities and supplies. Variations in volumes year-over-year, as discussed above in *Operating Revenues*, in addition to cost inflation, affect the comparability of the components of our operating expenses.

The following table summarizes the major components of our operating expenses for the year ended December 31 (dollars in millions and as a percentage of revenues):

	2021		2020		2019	
Labor and related benefits	$ 3,223	18.0 %	$ 2,746	18.1 %	$ 2,791	18.0 %
Transfer and disposal costs	1,161	6.5	1,135	7.5	1,160	7.5
Maintenance and repairs	1,596	8.9	1,331	8.7	1,355	8.8
Subcontractor costs	1,766	9.9	1,523	10.0	1,532	9.9
Cost of goods sold	936	5.2	553	3.6	553	3.6
Fuel	393	2.2	265	1.7	336	2.2
Disposal and franchise fees and taxes	698	3.9	606	4.0	627	4.1
Landfill operating costs	412	2.3	394	2.6	379	2.4
Risk management	344	1.9	269	1.8	267	1.7
Other	582	3.2	519	3.4	496	3.2
	$ 11,111	62.0 %	$ 9,341	61.4 %	$ 9,496	61.4 %

Our operating expenses for 2021 increased, as compared with 2020, primarily due to (i) increased volumes from the acquisition of Advanced Disposal; (ii) commodity-driven business impacts, particularly from recycling brokerage rebates and higher fuel prices; (iii) volume recovery from earlier pandemic lows; (iv) labor cost pressure from frontline employee wage adjustments, increased turnover driving up training costs and higher overtime due to driver shortages and volume growth and (v) inflationary cost pressures, primarily in the second half of 2021. These impacts were partially offset by our continued focus on operating efficiency and efforts to control costs as volumes grow.

Our operating expenses for 2020 decreased, as compared with 2019, primarily due to decreases in our landfill and industrial and commercial collection volumes and our proactive steps to manage our variable costs in response to the volume declines resulting from COVID-19 impacts. The revenue declines due to the COVID-19 pandemic had a greater impact on our higher margin lines of business and negatively impacted operating costs as a percentage of revenues. In addition, our operating expenses as a percentage of revenues was impacted by our acquisition of Advanced Disposal as the acquired business's operating cost structure was higher than ours and we incurred certain one-time, upfront costs.

Significant items affecting the comparison of operating expenses between reported periods include:

Labor and Related Benefits — The increase in labor and related benefits costs in 2021, as compared with 2020, was largely driven by (i) increased labor and related benefits costs related to our acquisition of Advanced Disposal; (ii) merit and proactive market wage adjustments to hire and retain talent; (iii) volume increases, particularly in our commercial and industrial collection businesses, which when combined with driver shortages and turnover in certain markets, increased overtime and training hours; (iv) higher annual incentive compensation and (v) increases in health and welfare costs attributable to medical care activity generally returning to pre-pandemic levels. The decrease in labor and related benefits costs in 2020, as compared with 2019, was largely driven by decreases in volume in our industrial and commercial collection businesses. Our proactive steps positioned us to optimize our route structure to respond to lower industrial and commercial collection volumes. Additionally, the decrease was attributable to (i) improved efficiency; (ii) lower headcount due to employee attrition coupled with proactive steps to defer hiring due to COVID-19 driven uncertainty and (iii) lower annual incentive compensation. These decreases were offset, in part, by annual merit increases and the addition of employees as a result of our acquisition of Advanced Disposal.

Transfer and Disposal Costs — The increase in transfer and disposal costs in 2021, as compared with 2020, was largely driven by increased volume, which includes the volumes from our acquisition of Advanced Disposal and inflationary cost increases from our third-party haulers. The decrease in transfer and disposal costs in 2020, as compared with 2019, was largely driven by volume declines in our industrial and commercial collection businesses as a result of COVID-19 offset, in part, by additional disposal costs attributable to our acquisition of Advanced Disposal.

Maintenance and Repairs — The increase in maintenance and repairs costs in 2021, as compared with 2020, was largely driven by (i) our acquisition of Advanced Disposal, including intentional investments to bring the acquired fleet to our standards; (ii) inflationary cost increases for parts, supplies and third-party services; (iii) additional fleet maintenance driven by commercial and industrial collection volume increases; (iv) labor cost pressure from our technicians, including higher overtime from labor shortages; (v) an increase in container repairs driven by volume increases and delays in normal course capital expenditures for steel containers due to both steel costs and supply chain constraints and (vi) increased building maintenance costs including improvements to facilities. The decrease in maintenance and repairs costs in 2020, as compared with 2019, was largely driven by proactive steps to optimize routes and reduce overtime hours to address the volume declines discussed above. Additionally, the 2019 period was also impacted by a $16 million non-cash charge to write-off certain equipment costs related to our Other segment. This decline in costs was partially offset by intentional investments in the acquired Advanced Disposal fleet and inflationary cost pressures for both our Company and third-party services due to demand for skilled technician labor as well as for parts and supplies.

Subcontractor Costs — The increase in subcontractor costs in 2021, as compared with 2020, was largely driven by (i) inflationary cost increases from third-party haulers and higher volumes; (ii) an increase in volumes in our WMSBS business, which relies more extensively on subcontracted hauling than our collection and disposal business and (iii) the acquisition of Advanced Disposal. The decrease in subcontractor costs in 2020, as compared with 2019, was largely due to COVID-19 driven volume declines in our industrial collection business and projects ending or scaling down during 2020 in our EES business. The decrease was offset, in part, by an increase in business activity in our WMSBS business.

Cost of Goods Sold — The increase in cost of goods sold in 2021, as compared with 2020, was primarily driven by increases in market prices for recycling commodities of approximately 115% and to a lesser extent, higher recycling volumes. Costs in 2020 were flat when compared with 2019 in spite of an increase in commodity prices, largely due to lower recycling volumes as a result of COVID-19. Additionally, a higher percentage of our overall recycled commodity sales in 2020 were targeted at domestic markets, resulting in lower freight costs.

Fuel — The increase in fuel costs in 2021, as compared with 2020, was primarily due to (i) increases of almost 30% in market prices for diesel fuel; (ii) the acquisition of Advanced Disposal and (iii) volume increases in our commercial and industrial collection businesses. The decrease in fuel costs in 2020, as compared with 2019, was primarily due to (i) a decline of approximately 15% in market prices for diesel fuel; (ii) lower costs resulting from the continued conversion of our fleet to natural gas vehicles and (iii) volume declines. The decreases were offset, in part, by (i) lower federal alternative fuel credits and (ii) additional costs attributable to our acquisition of Advanced Disposal.

Disposal and Franchise Fees and Taxes — The increase in disposal and franchise fees and taxes in 2021, as compared with 2020, was primarily driven by (i) landfill volume increases; (ii) disposal rate increases at certain landfills and (iii) additional costs attributable to our acquisition of Advanced Disposal. The decrease in disposal and franchise fees and taxes in 2020, as compared with 2019, was primarily related to lower landfill volumes, largely driven by the impact of COVID-19. The decreases were offset, in part, by additional costs attributable to our acquisition of Advanced Disposal.

Landfill Operating Costs — The increase in landfill operating costs in 2021, as compared with 2020, was primarily due to volume increases, which includes our acquisition of Advanced Disposal and increased testing and monitoring costs. These increases were partially offset by (i) lower leachate management costs, primarily due to the cessation of certain transportation costs in our East Tier segment and (ii) changes in the measurement of our environmental remediation obligations and recovery assets in 2021 and 2020. Our measurement of these balances includes application of a risk-free discount rate, which is based on the rate for U.S. Treasury bonds. In 2021, there was an increase in the discount rate, which resulted in a reduction in the net liability balance and a credit to expense. Conversely, in 2020, there was a decrease in the discount rate, which resulted in an increase in the net liability balance and a charge to expense.

The increase in landfill operating costs in 2020, as compared with 2019, was primarily due to higher leachate management costs compared to the prior year and additional costs attributable to our acquisition of Advanced Disposal. This increase was offset, in part, by decreases attributable to lower volumes at our landfills.

Risk Management — The increase in risk management costs in 2021, as compared with 2020, was primarily due to our acquisition of Advanced Disposal and overall economic recovery, increasing business activity and claim volumes and related costs. Risk management costs were relatively flat in 2020, as compared with 2019.

Other — Other operating cost increases in 2021, as compared with 2020, were due to our acquisition of Advanced Disposal and increased equipment rental costs attributable, in part, to increased volumes and supply chain constraints slowing normal course fleet and equipment orders. Additionally, during the second half of 2021, additional volumes and inflationary cost pressures drove an increase in various costs. Partially offsetting these was a favorable litigation settlement in 2021. Additionally, net gains on sales of certain assets during each year impacted the comparability of the reported periods.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses consist of (i) labor and related benefits costs, which include salaries, bonuses, related insurance and benefits, contract labor, payroll taxes and equity-based compensation; (ii) professional fees, which include fees for consulting, legal, audit and tax services; (iii) provision for bad debts, which includes allowances for uncollectible customer accounts and collection fees and (iv) other selling, general and administrative expenses, which include, among other costs, facility-related expenses, voice and data telecommunication, advertising, bank charges, computer costs, travel and entertainment, rentals, postage and printing. In addition, the financial impacts of litigation reserves generally are included in our "Other" selling, general and administrative expenses.

The following table summarizes the major components of our selling, general and administrative expenses for the year ended December 31 (dollars in millions and as a percentage of revenues):

	2021		2020		2019	
Labor and related benefits	$ 1,215	6.8 %	$ 1,057	6.9 %	$ 1,020	6.6 %
Professional fees	228	1.3	256	1.7	183	1.2
Provision for bad debts	37	0.2	54	0.4	38	0.3
Other	384	2.1	361	2.4	390	2.5
	$ 1,864	10.4 %	$ 1,728	11.4 %	$ 1,631	10.6 %

Selling, general and administrative expenses for 2021, as compared with 2020, increased primarily due to (i) higher incentive compensation costs; (ii) strategic investments in our digital platform, including planned investments in a new enterprise resource planning system and investments in customer service digitalization and (iii) increased labor, support and integration costs following our acquisition of Advanced Disposal. Partially offsetting these increases are lower consulting, advisory and legal fees from the 2020 acquisition of Advanced Disposal and improvements in our provision for bad debts as collections returned to pre-pandemic levels. Although our costs increased, the significant revenue increase positioned us to reduce our overall selling, general and administrative expenses as a percentage of revenues when compared with the prior year periods.

Selling, general and administrative expenses for 2020, as compared with 2019, increased due to (i) incremental costs of approximately $150 million incurred in connection with the acquisition and integration of Advanced Disposal; (ii) strategic investments in our digital platform and (iii) an increase in the provision for bad debts due to negative impacts on customer receipts experienced as a result of the COVID-19 pandemic. In addition to the cost increases, selling, general and administrative expenses as a percent of revenue increased in 2020 due to the decline in volume-related revenues.

Significant items affecting the comparison of our selling, general and administrative expenses between reported periods include:

Labor and Related Benefits — The increase in labor and related benefits costs for 2021, as compared with 2020, was primarily due to (i) higher incentive compensation costs; (ii) additional headcount, including from our acquisition of Advanced Disposal; (iii) annual merit increases for our employees; (iv) costs associated with our strategic investments in our digital platform and (v) increases in health and welfare costs attributable to medical care activities generally returning to pre-pandemic levels from the lower level experienced during 2020. The increase in labor and related benefits costs in 2020, as compared with 2019, was largely due to (i) costs incurred in connection with our acquisition of Advanced Disposal, including severance costs and additional headcount; (ii) annual merit increases and (iii) costs associated with our strategic investments in our digital platform. These cost increases were offset, in part, by (i) lower annual incentive compensation costs and (ii) proactive steps undertaken to defer hiring and reduce labor related costs.

Professional Fees — Professional fees decreased for 2021, as compared with 2020, primarily due to lower consulting, advisory and legal fees following the completion of our acquisition of Advanced Disposal in 2020, partially offset by increased strategic investments in our digital platform and integration costs related to our acquisition of Advanced Disposal. The increases in professional fees in 2020, as compared with 2019, were primarily driven by consulting, advisory and legal fees incurred in connection with our acquisition and integration of Advanced Disposal and strategic investments in our digital platform.

Provision for Bad Debts — The decrease in provision for bad debts for 2021, as compared with 2020, was primarily due to an overall improvement in customer account collections and decreased collection risk with certain customers. The increase in the provision for bad debts in 2020, as compared with 2019, was primarily due to increased collection risk associated with certain customers as a result of the COVID-19 pandemic.

Other — The increase in other expenses for 2021, as compared with 2020, was primarily driven by costs associated with our acquisition of Advanced Disposal and increased technology infrastructure costs to support our strategic investments in our digital platform. The decrease in other expenses in 2020, as compared with 2019, was primarily due to lower litigation costs and proactive measures taken to reduce discretionary costs, such as travel and entertainment, company-wide. These cost decreases were offset, in part, by increased technology infrastructure costs in 2020 to support strategic investments in our digital platform. We also incurred one-time technology costs in 2020 to transition employees to work-from-home in response to the COVID-19 pandemic.

Depreciation and Amortization Expenses

The following table summarizes the components of our depreciation and amortization expenses for the year ended December 31 (dollars in millions and as a percentage of revenues):

	2021		2020		2019	
Depreciation of tangible property and equipment	$ 1,125	6.2 %	$ 996	6.6 %	$ 893	5.8 %
Amortization of landfill airspace	731	4.1	568	3.7	575	3.7
Amortization of intangible assets	143	0.8	107	0.7	106	0.7
	$ 1,999	11.1 %	$ 1,671	11.0 %	$ 1,574	10.2 %

The increase in depreciation of tangible property and equipment in 2021, as compared with 2020, was related to our acquisition of Advanced Disposal and investments in capital assets, including our fleet, heavy equipment at our landfills and containers to service our customers. The increase in amortization of landfill airspace in 2021, as compared with 2020, was driven by (i) changes in amortization rates driven by revisions in landfill estimates, which includes changes in the anticipated timing of capping, closure and post-closure activities; (ii) our acquisition of Advanced Disposal and (iii) landfill volume increases from the economic recovery. Additionally, 2020 benefited from a decrease in the inflation rate used to estimate capping, closure, and post-closure asset retirement obligations. The increase in amortization of intangible assets in 2021, as compared with 2020, was primarily driven by the amortization of acquired intangible assets related to the acquisition of Advanced Disposal.

The increase in depreciation of tangible property and equipment in 2020, as compared with 2019, was primarily related to (i) investments in capital assets, including our fleet and facilities and (ii) additional depreciation attributable to our acquisition of Advanced Disposal. The decrease in amortization of landfill airspace in 2020, as compared with 2019, was driven by (i) lower volumes at our landfills, primarily as a result of the COVID-19 pandemic, and (ii) a decrease in the inflation rate used to estimate capping, closure and post-closure asset retirement obligations from 2.5% to 2.25% at December 31, 2020. These decreases were offset, in part, by charges to reflect changes in estimated landfill construction costs and our acquisition of Advanced Disposal.

Our amortization of intangible assets was flat in 2020, as compared with 2019. The increased expense for intangible assets acquired as part of the acquisition of Advanced Disposal was offset, primarily by decreases for certain customer list assets reaching the end of their lives.

Restructuring

During the year ended December 31, 2021, we recognized $8 million of restructuring charges primarily related to our acquisition of Advanced Disposal. During the year ended December 31, 2020, we recognized $9 million of restructuring charges primarily related to modifying our field sales and customer services structures to better support our investment in customer service digitalization, which is discussed above.

(Gain) Loss from Divestitures, Asset Impairments and Unusual Items, Net

The following table summarizes the major components of (gain) loss from divestitures, asset impairments and unusual items, net for the year ended December 31 (in millions):

	2021	2020	2019
Gain from divestitures, net	$ (44)	$ (33)	$ —
Asset impairments	8	68	42
Other	20	—	—
	$ (16)	$ 35	$ 42

During the year ended December 31, 2021, we recognized net gains of $16 million primarily consisting of (i) a $35 million pre-tax gain from the recognition of cumulative translation adjustments on the divestiture of certain non-strategic Canadian operations in our East Tier segment and (ii) an $8 million gain from divestitures of certain ancillary operations in our Other segment. These gains were partially offset by (i) a $20 million charge pertaining to reserves for loss contingencies in our Corporate and Other segment and (ii) $8 million of asset impairment charges primarily related to our WM Renewable Energy business within our Other segment.

During the year ended December 31, 2020, we recognized $35 million of net charges primarily related to (i) a $33 million net gain associated with net asset divestitures executed to address requirements of the U.S. Department of Justice in connection with our acquisition of Advanced Disposal, primarily within our West Tier segment; (ii) $41 million of non-cash impairment charges primarily related to two landfills and an oil field waste injection facility in our West Tier segment; (iii) a $20 million non-cash impairment charge in our East Tier segment due to management's decision to close a landfill once its constructed airspace is filled and abandon any remaining permitted airspace and (iv) $7 million of net charges primarily related to non-cash impairments of certain assets within our WM Renewable Energy business in our Other segment.

During the year ended December 31, 2019, we recognized asset impairments of $42 million, related to (i) $27 million of goodwill impairment charges within our Other segment, of which $17 million related to our EES business, and $10 million related to our LampTracker® reporting unit and (ii) $15 million of asset impairment charges primarily related to certain solid waste operations in our West Tier segment.

See Note 2 to the Consolidated Financial Statements for additional information related to the accounting policy and analysis involved in identifying and calculating impairments.

Income from Operations

The following table summarizes income from operations for the year ended December 31 and has been updated to reflect our realigned segments which are discussed further in Note 19 to the Consolidated Financial Statements (dollars in millions):

	2021	Period-to-Period Change		2020(c)	Period-to-Period Change		2019(c)
Solid Waste:							
East Tier	$ 2,037	$ 365	21.8 %	$ 1,672	$ (175)	(9.5)%	$ 1,847
West Tier	2,103	303	16.8	1,800	(134)	(6.9)	1,934
Solid Waste	4,140	668	19.2	3,472	(309)	(8.2)	3,781
Other (a)	34	76	*	(42)	116	*	(158)
Corporate and Other (b)	(1,209)	(213)	21.4	(996)	(79)	8.6	(917)
Total	$ 2,965	$ 531	21.8 %	$ 2,434	$ (272)	(10.1)%	$ 2,706
Percentage of revenues	16.5 %			16.0 %			17.5 %

* Percentage change does not provide a meaningful comparison.

(a) "Other" includes (i) elements of our WMSBS business; (ii) elements of our landfill gas-to-energy operations managed by our WM Renewable Energy business and not included in the operations of our reportable segments; (iii) elements of our third-party subcontract and administration revenues managed by our EES business and not included in the operations of our reportable segments; (iv) our recycling brokerage services and (v) certain other expanded service offerings and solutions. In addition, our "Other" segment reflects the results of non-operating entities that provide financial assurance and self-insurance support for our Solid Waste business, net of intercompany activity.

(b) "Corporate and Other" operating results reflect certain costs incurred for various support services that are not allocated to our reportable segments. These support services include, among other things, treasury, legal, digital, tax, insurance, centralized service center processes, other administrative functions and the maintenance of our closed landfills. Income from operations for "Corporate and Other" also includes costs associated with our long-term incentive program.

(c) In the fourth quarter of 2021, we discontinued certain allocations from our Corporate and Other segment to our Solid Waste operating segments and Other segment. Reclassifications have been made to our prior period information for comparability purposes.

Solid Waste — The most significant items affecting the results of operations of our Solid Waste business during the three years ended December 31, 2021 are summarized below:

- Income from operations in our Solid Waste business increased for 2021, as compared with 2020, primarily due to (i) revenue growth in our collection and disposal businesses driven by both yield and volume, as well as the acquisition of Advanced Disposal; (ii) improved profitability in our recycling business from higher market prices for recycling commodities and improved costs at facilities where we have made investments in enhanced technology and equipment and (iii) changes from divestitures, asset impairments and unusual items discussed above in *(Gain) Loss from Divestitures, Asset Impairments and Unusual Items, Net*. These increases were partially offset by (i) labor cost pressure from frontline employee wage adjustments, increased turnover driving up training costs and higher overtime due to driver shortages and volume growth; (ii) increased landfill amortization from higher volumes and revisions in landfill estimates, including the anticipated timing of capping, closure and post-closure activities at certain landfills and adjustments in 2020 to the inflation rate used to estimate capping, closure, and post-closure asset retirement obligations that benefitted costs in 2020 and (iii) inflationary cost pressures. During 2021, the positive earnings contributions from Advanced Disposal were offset by elevated depreciation and amortization of acquired assets.

- Income from operations for 2020 decreased, as compared with 2019, for the Solid Waste business due to the overall negative impact of the COVID-19 pandemic resulting in revenue declines from lower volumes and higher depreciation expense which was primarily related to investments in capital assets, including our fleet and facilities. The declines were partially offset by (i) higher yield in our collection and disposal businesses; (ii) the benefit of resumed fees and price increases; (iii) lower operating costs directly related to our proactive steps taken to manage our variable costs in the lower volume environment and (iv) a net divestiture gain of $33 million associated with the sale of net assets to GFL Environmental, primarily within our West Tier segment.

Additionally, income from operations for our West Tier segment was impacted by $41 million of non-cash asset impairment charges primarily related to two landfills and an oil field waste injection facility. Income from operations for our East Tier segment was impacted by a $20 million non-cash impairment charge related to management's decision to close a landfill once its constructed airspace is filled and abandon any remaining permitted airspace. Furthermore, in 2019, our West Tier segment benefited from the clean-up efforts of natural disasters primarily in California and similar efforts did not recur in 2020.

Other — The increase in income from operations for 2021, as compared with 2020, was primarily driven by increased market values for renewable energy credits generated by our WM Renewable Energy business.

Income from operations for the Other segment for 2020, as compared with 2019, was favorably impacted primarily by (i) volume increases in our WM Renewable Energy business as a result of a new renewable energy facility coming online; (ii) our WMSBS business as a result of newly executed national account contracts and (iii) our recycling brokerage business.

Corporate and Other — The most significant items affecting the results of operations for Corporate and Other during the three years ended December 31, 2021 are summarized below:

- These costs increased in 2021, as compared with 2020, due to (i) higher incentive compensation costs; (ii) increased labor, support and integration costs following our acquisition of Advanced Disposal; (iii) strategic investments in our digital platform; (iv) increased health and welfare costs attributable to medical care activity generally returning to pre-pandemic levels from the lower levels experienced during 2020 and (v) charges pertaining to reserves for certain loss contingencies during 2021. These increases were partially offset by lower consulting, advisory and legal fees following the completion of our acquisition of Advanced Disposal in the fourth quarter of 2020 and changes in the measurement of our environmental remediation obligations and recovery assets in both 2020 and 2021.
- The costs increased in 2020, as compared with 2019, due to (i) higher consulting, advisory and legal fees associated with our acquisition and integration of Advanced Disposal; (ii) strategic investments in our digital platform; (iii) incremental costs associated with the COVID-19 pandemic and (iv) higher long-term incentive compensation costs. These increased expenses were offset, in part, by (i) lower annual incentive compensation costs and (ii) lower litigation reserves.

Interest Expense, Net

Our interest expense, net was $365 million, $425 million and $411 million in 2021, 2020 and 2019, respectively. The decrease in interest expense, net for 2021 was primarily due to certain refinancing activities, as discussed further below, including (i) the redemption of $3.0 billion of senior notes in July 2020 and the issuance of $2.5 billion of senior notes in November 2020 at lower rates and (ii) the retirement of $1.3 billion of certain high-coupon senior notes and concurrent issuance of $950 million of lower coupon senior notes in May 2021. The decreases were partially offset by decreases in interest income as a result of lower cash and cash equivalents balances in 2021. The increase in interest expense, net for 2020 was primarily attributable to decreases in interest income resulting from lower cash and cash equivalents balances, due to the redemption of $3.0 billion of senior notes with a special mandatory redemption feature (the "SMR Notes") in July 2020 as discussed below in *Loss on Early Extinguishment of Debt, Net*. Partially offsetting the decreases in interest income were favorable impacts due to a lower interest rate on our commercial paper borrowings as a result of the favorable interest rate environment in 2020 compared to 2019.

Loss on Early Extinguishment of Debt, Net

In May 2021, WMI issued $950 million of senior notes, which are discussed further below in *Summary of Cash and Cash Equivalents, Restricted Trust and Escrow Accounts and Debt Obligations*. Concurrently, we used the net proceeds from the newly issued senior notes of $942 million and available cash on hand to retire $1.3 billion of certain high-coupon senior notes. The loss on early extinguishment of debt for 2021 includes $220 million of charges related to this tender offer, including cash paid of $211 million related to premiums and other third-party costs, and $9 million primarily related to unamortized discounts and debt issuance costs. See Note 6 to the Consolidated Financial Statements for more information related to these transactions.

In July 2020, we recognized a $52 million loss on early extinguishment of debt in our Consolidated Statement of Operations related to the mandatory redemption of the SMR Notes. The loss includes $30 million of premiums paid and $22 million of unamortized discounts and debt issuance costs. Pursuant to the terms of the SMR Notes, we were required to redeem all of such outstanding notes paying debt holders 101% of the aggregate principal amounts of such notes, plus accrued but unpaid interest, as a result of the Advanced Disposal acquisition not being completed by July 14, 2020. Accordingly, the redemption was completed on July 20, 2020 using available cash on hand and, to a lesser extent, commercial paper borrowings. The cash paid included the $3.0 billion principal amount of debt redeemed, $30 million of related premiums and $8 million of accrued interest.

During the fourth quarter of 2020, we repaid the outstanding borrowings under our 364-day revolving credit facility and contemporaneously terminated the facility, at which time we recognized a $2 million loss on early extinguishment of debt in our Consolidated Statement of Operations related to unamortized debt issuance costs.

At the time of acquisition, Advanced Disposal had outstanding $425 million of 5.625% senior notes due November 2024. In November 2020, we redeemed the notes pursuant to an optional redemption feature upon which we recognized a $1 million gain on early extinguishment of debt in our Consolidated Statement of Operations due to the difference in carrying value and redemption price.

In May 2019, WMI issued $4.0 billion of senior notes, including $3.0 billion of SMR Notes. We used $344 million of the proceeds from this offering to retire $257 million principal amount of certain high-coupon senior notes. The cash paid to retire the high-coupon senior notes also included $84 million of related premiums, which are classified as loss on early extinguishment of debt in our Consolidated Statement of Operations, and $3 million of accrued interest.

In the third quarter of 2019, we elected to refund and reissue $99 million of tax-exempt bonds, which resulted in the recognition of a $1 million loss on early extinguishment of debt in our Consolidated Statement of Operations.

Equity in Net Losses of Unconsolidated Entities

We recognized equity in net losses of unconsolidated entities of $36 million, $68 million and $55 million in 2021, 2020 and 2019, respectively. The losses for each period were primarily related to our noncontrolling interests in entities established to invest in and manage low-income housing properties. We generate tax benefits, including tax credits, from the losses incurred from these investments, which are discussed further in Notes 8 and 18 to the Consolidated Financial Statements. In 2020, the entity that held and managed our ownership interest in the refined coal facility sold a majority of its assets resulting in a $7 million non-cash impairment charge at that time. Additionally, the 2019 period includes losses associated with our investment in a refined coal facility.

Other, Net

We recognized other, net income of $5 million in 2021 and 2020, compared to other, net expense of $50 million in 2019. In 2019, we recognized a $52 million non-cash impairment charge related to our minority-owned investment in a waste conversion technology business. We wrote down our investment to its estimated fair value as the result of recent third-party investor's transactions in these securities. The fair value of our investment was not readily determinable; thus, we determined the fair value utilizing a combination of quoted price inputs for the equity in our investment (Level 2) and certain management assumptions pertaining to investment value (Level 3).

Income Tax Expense

We recorded income tax expense of $532 million, $397 million and $434 million in 2021, 2020 and 2019, respectively, resulting in effective income tax rates of 22.6%, 20.9% and 20.6% for the years ended December 31, 2021, 2020 and 2019, respectively. The comparability of our income tax expense for the reported periods has been primarily affected by the following:

- *Investments Qualifying for Federal Tax Credits* — Our low-income housing properties and refined coal facility investments reduced our income tax expense by $74 million, $87 million and $96 million, primarily due to tax credits realized from these investments for the years ended December 31, 2021, 2020 and 2019, respectively. See Note 18 to the Consolidated Financial Statements for additional information related to these unconsolidated variable interest entities;
- *Other Federal Tax Credits* — During 2021, 2020 and 2019, we recognized federal tax credits in addition to the tax credits realized from our investments in low-income housing properties and the refined coal facility, resulting in a reduction in our income tax expense of $5 million, $7 million and $11 million, respectively;
- *Equity-Based Compensation* — During 2021, 2020 and 2019, we recognized excess tax benefits related to the vesting or exercise of equity-based compensation awards resulting in a reduction in our income tax expense of $18 million, $27 million and $25 million, respectively;
- *State Net Operating Losses and Credits* — During 2021, 2020 and 2019, we recognized state net operating losses and credits resulting in a reduction in our income tax expense of $15 million, $12 million and $14 million, respectively;
- *Tax Audit Settlements* — We file income tax returns in the U.S. and Canada, as well as other state and local jurisdictions. We are currently under audit by various taxing authorities and our audits are in various stages of completion. During the reported periods, we settled various tax audits, which resulted in a reduction in our income tax expense of $13 million, $10 million and $2 million for the years ended December 31, 2021, 2020 and 2019, respectively;
- *Adjustments to Accruals and Related Deferred Taxes* — Adjustments to our accruals and related deferred taxes primarily due to the filing of our income tax returns, analysis of our deferred tax balances and uncertain tax positions, and changes in state and foreign laws resulted in an increase in our income tax expense of $17 million for the year ended December 31, 2021, and a reduction in our income tax expense of $3 million and $22 million for the years ended December 31, 2020 and 2019, respectively;
- *Tax Implications of Divestitures* – During 2021, we recognized a pre-tax gain from the recognition of cumulative translation adjustments on the divestiture of certain non-strategic Canadian operations. This gain was not taxable, which resulted in a reduction in our income tax expense of $8 million;
- *Non-Deductible Transaction Costs* — During 2020 and 2019, we recognized the detrimental tax impact of $27 million and $10 million, respectively, of non-deductible transaction costs related to our acquisition of Advanced Disposal. The tax rules require the capitalization of certain facilitative costs on the acquisition of stock of a company resulting in the applicable costs not being deductible for tax purposes; and
- *Tax Implications of Impairments* — Portions of the impairment charges recognized during 2019 were not deductible for tax purposes resulting in an increase in income tax expense of $15 million. The non-cash impairment charges recognized during 2021 and 2020 were deductible for tax purposes. See Note 11 to the Consolidated Financial Statements for more information related to our impairment charges.

See Note 8 to the Consolidated Financial Statements for more information related to income taxes.

Landfill and Environmental Remediation Discussion and Analysis

We owned or operated 255 solid waste landfills and five secure hazardous waste landfills as of December 31, 2021 and 263 solid waste landfills and five secure hazardous waste landfills as of December 31, 2020. For these landfills, the following table reflects changes in capacity, as measured in tons of waste, for the year ended December 31 and remaining airspace, measured in cubic yards of waste, as of December 31 (in millions):

	2021			2020		
	Remaining Permitted Capacity	Expansion Capacity	Total Capacity	Remaining Permitted Capacity	Expansion Capacity	Total Capacity
Balance as of beginning of year (in tons)	4,891	191	5,082	4,754	200	4,954
Acquisitions, divestitures, newly permitted landfills and closures	(4)	—	(4)	259	14	273
Changes in expansions pursued (a)	—	105	105	—	21	21
Expansion permits granted (b)	126	(126)	—	44	(44)	—
Amortizable tons received	(124)	—	(124)	(112)	—	(112)
Changes in engineering estimates and other (c)	—	4	4	(54)	—	(54)
Balance as of end of year (in tons)	4,889	174	5,063	4,891	191	5,082
Balance as of end of year (in cubic yards)	4,808	163	4,971	4,828	163	4,991

(a) Amounts reflected here relate to the combined impacts of (i) new expansions pursued; (ii) increases or decreases in the airspace being pursued for ongoing expansion efforts; (iii) adjustments for differences between the airspace being pursued and airspace granted and (iv) decreases due to decisions to no longer pursue expansion permits, if any.

(b) We received expansion permits at seven of our landfills during 2021 and four of our landfills during 2020, demonstrating our continued success in working with municipalities and regulatory agencies to expand the disposal airspace of our existing landfills.

(c) Changes in engineering estimates can result in changes to the estimated available remaining airspace of a landfill or changes in the utilization of such landfill airspace, affecting the number of tons that can be placed in the future. Estimates of the amount of waste that can be placed in the future are reviewed annually by our engineers and are based on a number of factors, including standard engineering techniques and site-specific factors such as current and projected mix of waste type; initial and projected waste density; estimated number of years of life remaining; depth of underlying waste; anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. We continually focus on improving the utilization of airspace through efforts that may include recirculating landfill leachate where allowed by permit; optimizing the placement of daily cover materials and increasing initial compaction through improved landfill equipment, operations and training.

The tons received at our landfills for the year ended December 31 are shown below (tons in thousands):

	2021			2020		
	# of Sites	Total Tons	Tons per Day	# of Sites	Total Tons	Tons per Day
Solid waste landfills (a)	255 (b)	124,773	457	263	112,729	413
Hazardous waste landfills	5	610	2	5	676	2
	260	125,383	459	268	113,405	415
Solid waste landfills closed, divested or lease or other contractual agreement expired during related year	9	114		5	318	
		125,497 (c)			113,723 (c)	

(a) As of December 31, 2021 and 2020, we had 14 landfills and 17 landfills, respectively, which were not accepting waste.

(b) In 2021, we (i) executed one new contractual agreement; (ii) divested one landfill; (iii) divested one service agreement; (iv) closed six landfills and (v) closed one landfill operated under contractual agreement.

(c) These amounts include 1.6 million tons and 1.7 million tons as of December 31, 2021 and 2020, respectively, that were received at our landfills but were not amortized as they were used for beneficial purposes and generally were redirected from the permitted airspace to other areas of the landfill. Waste types that are frequently identified for beneficial use include green waste for composting and clean dirt for on-site construction projects.

As of December 31, 2021, we owned or controlled the management of 230 sites with remedial activities, are in closure or have received a certification of closure from the applicable regulatory agency.

Based on remaining permitted airspace as of December 31, 2021 and projected annual disposal volume, the weighted average remaining landfill life for all of our owned or operated landfills is approximately 38 years. Many of our landfills have the potential for expanded airspace beyond what is currently permitted. We monitor the availability of permitted airspace at each of our landfills and evaluate whether to pursue an expansion at a given landfill based on estimated future disposal volume, disposal prices, construction and operating costs, remaining airspace and likelihood of obtaining an expansion permit. We are seeking expansion permits at 15 of our landfills that meet the expansion criteria outlined in the *Critical Accounting Estimates and Assumptions — Landfills* section below. Although no assurances can be made that all future expansions will be permitted or permitted as designed, the weighted average remaining landfill life for all owned or operated landfills is approximately 39 years when considering remaining permitted airspace, expansion airspace and projected annual disposal volume.

The number of landfills owned or operated as of December 31, 2021, segregated by their estimated operating lives based on remaining permitted and expansion airspace and projected annual disposal volume, was as follows:

	# of Landfills
0 to 5 years	28
6 to 10 years	21
11 to 20 years	50
21 to 40 years	61
41+ years	100
Total	260 (a)

(a) Of the 260 landfills, 219 are owned, 29 are operated under lease agreements and 12 are operated under other contractual agreements. For the landfills not owned, we are usually responsible for final capping, closure and post-closure obligations.

Landfill Assets — We capitalize various costs that we incur to prepare a landfill to accept waste. These costs generally include expenditures for land (including the landfill footprint and required landfill buffer property), permitting, excavation, liner material and installation, landfill leachate collection systems, landfill gas collection systems, environmental monitoring equipment for groundwater and landfill gas, directly related engineering, capitalized interest, and on-site road construction and other capital infrastructure costs. The cost basis of our landfill assets also includes estimates of future costs associated with landfill final capping, closure and post-closure activities, which are discussed further below.

The changes to the cost basis of our landfill assets and accumulated landfill airspace amortization for the year ended December 31, 2021 are reflected in the table below (in millions):

	Cost Basis of Landfill Assets	Accumulated Landfill Airspace Amortization	Net Book Value of Landfill Assets
December 31, 2020	$ 16,842	$ (9,692)	$ 7,150
Capital additions	791	—	791
Asset retirement obligations incurred and capitalized	117	—	117
Amortization of landfill airspace	—	(731)	(731)
Foreign currency translation	8	(3)	5
Asset retirements and other adjustments	(24)	36	12
December 31, 2021	$ 17,734	$ (10,390)	$ 7,344

As of December 31, 2021, we estimate that we will spend approximately $639 million in 2022, and approximately $1.4 billion in 2023 and 2024 combined, for the construction and development of our landfill assets. The specific timing of landfill capital spending is dependent on future events and spending estimates are subject to change due to fluctuations in landfill waste volumes, changes in environmental requirements and other factors impacting landfill operations.

As of December 31, 2021, we had 14 landfills which were not accepting waste. During the year ended December 31, 2021, we performed tests of recoverability for five of these landfills with an aggregate net recorded capitalized landfill asset cost of $297 million, for which the undiscounted expected future cash flows resulting from our probability-weighted estimation approach exceeded the carrying values. We did not perform recoverability tests for the remaining nine landfills as the net recorded capitalized landfill asset cost was not material.

Landfill and Environmental Remediation Liabilities — As we accept waste at our landfills, we incur significant asset retirement obligations, which include liabilities associated with landfill final capping, closure and post-closure activities. These liabilities are accounted for in accordance with authoritative guidance on accounting for asset retirement obligations and are discussed in Note 2 to the Consolidated Financial Statements. We also have liabilities for the remediation of properties that have incurred environmental damage, which generally was caused by operations or for damage caused by conditions that existed before we acquired operations or a site. We recognize environmental remediation liabilities when we determine that the liability is probable and the estimated cost for the likely remedy can be reasonably estimated.

The changes to landfill and environmental remediation liabilities for the year ended December 31, 2021 are reflected in the table below (in millions):

	Landfill	Environmental Remediation
December 31, 2020	$ 2,156	$ 230
Obligations incurred and capitalized	117	—
Obligations settled	(101)	(22)
Interest accretion	108	3
Revisions in estimates and interest rate assumptions (a)	33	2
Acquisitions, divestitures and other adjustments (b)	13	—
December 31, 2021	$ 2,326	$ 213

(a) The amount reported for our landfill liabilities includes an increase of $15 million due to a business decision to accelerate the closure timing of a landfill in our West Tier segment, which resulted in the acceleration of the expected timing of capping, closure and post-closure activities. The remaining increase relates to revisions in estimated costs and timing of capping, closure and post-closure liabilities.

(b) The amount reported for our landfill liabilities includes an increase of $13 million related to changes in the fair values assigned to certain acquired Advanced Disposal sites.

Landfill Operating Costs — The following table summarizes our landfill operating costs for the year ended December 31 (in millions):

	2021	2020	2019
Interest accretion on landfill liabilities	$ 108	$ 103	$ 98
Interest accretion on and discount rate adjustments to environmental remediation liabilities and recovery assets	(2)	9	13
Leachate and methane collection and treatment	183	189	173
Landfill remediation costs	6	1	4
Other landfill site costs	117	92	91
Total landfill operating costs	$ 412	$ 394	$ 379

Amortization of Landfill Airspace — Amortization of landfill airspace, which is included as a component of depreciation and amortization expenses, includes the following:

- the amortization of landfill capital costs, including (i) costs that have been incurred and capitalized and (ii) estimated future costs for landfill development and construction required to develop our landfills to their remaining permitted and expansion airspace; and
- the amortization of asset retirement costs arising from landfill final capping, closure and post-closure obligations, including (i) costs that have been incurred and capitalized and (ii) projected asset retirement costs.

Amortization expense is recorded on a units-of-consumption basis, applying cost as a rate per ton. The rate per ton is calculated by dividing each component of the amortizable basis of a landfill (net of accumulated amortization) by the number of tons needed to fill the corresponding asset's remaining permitted and expansion airspace. Landfill capital costs and closure and post-closure asset retirement costs are generally incurred to support the operation of the landfill over its entire operating life and are, therefore, amortized on a per-ton basis using a landfill's total permitted and expansion airspace. Final capping asset retirement costs are related to a specific final capping event and are, therefore, amortized on a per-ton basis using each discrete final capping event's estimated permitted and expansion airspace. Accordingly, each landfill has multiple per-ton amortization rates.

The following table presents our landfill airspace amortization expense on a per-ton basis for the year ended December 31:

	2021	2020	2019
Amortization of landfill airspace (in millions)	$ 731	$ 568	$ 575
Tons received, net of redirected waste (in millions)	124	112	121
Average landfill airspace amortization expense per ton	$ 5.90	$ 5.07	$ 4.75

Different per-ton amortization rates are applied at each of our 260 landfills, and per-ton amortization rates vary significantly from one landfill to another due to (i) inconsistencies that often exist in construction costs and provincial, state and local regulatory requirements for landfill development and landfill final capping, closure and post-closure activities and (ii) differences in the cost basis of landfills that we develop versus those that we acquire. Accordingly, our landfill airspace amortization expense measured on a per-ton basis can fluctuate due to changes in the mix of volumes we receive across the Company each year.

Liquidity and Capital Resources

The Company consistently generates cash flow from operations that meets and exceeds our working capital needs, payment of our dividends, investment in the business through capital expenditures and tuck-in acquisitions, and funding of strategic growth and sustainability investments. We continually monitor our actual and forecasted cash flows, our liquidity and our capital resources, enabling us to plan for our present needs and fund unbudgeted business requirements that may arise during the year. The Company believes that its investment grade credit ratings, large value of unencumbered assets and modest leverage enable it to obtain adequate financing to meet its ongoing capital, operating, strategic and other liquidity requirements.

Summary of Contractual Obligations

The following table summarizes our significant contractual obligations as of December 31, 2021 and the anticipated effect of these obligations on our liquidity in future years (in millions):

	2022	2023	2024	2025	2026	Thereafter	Total
Recorded Obligations:							
Final capping, closure and post-closure liabilities (a)	$ 137	$ 171	$ 165	$ 188	$ 133	$ 2,477	$ 3,271
Debt payments (b)	2,449	651	249	1,278	677	8,275	13,579
Unrecorded Obligations:							
Interest on debt (c)	323	290	278	266	247	2,293	3,697
Estimated unconditional purchase obligations (d)	197	182	130	105	95	368	1,077
Anticipated liquidity impact as of December 31, 2021	$ 3,106	$ 1,294	$ 822	$ 1,837	$ 1,152	$ 13,413	$ 21,624

(a) Includes liabilities for final capping, closure and post-closure costs recorded in our Consolidated Balance Sheet as of December 31, 2021, without the impact of discounting and inflation. Our recorded liabilities for final capping, closure and post-closure costs will increase as we continue to place additional tons within the permitted airspace at our landfills.

(b) These amounts represent the scheduled principal payments based on their contractual maturities related to our long-term debt and financing leases, excluding interest. Refer to Note 6 to the Consolidated Financial Statements for additional information regarding our debt obligations.

(c) Interest on our fixed-rate debt was calculated based on contractual rates and interest on our variable-rate debt was calculated based on interest rates as of December 31, 2021. As of December 31, 2021, we had $58 million of accrued interest related to our debt obligations.

(d) Our unrecorded obligations represent purchase commitments from which we expect to realize an economic benefit in future periods. We have also made certain guarantees that we do not expect to materially affect our current or future financial position, results of operations or liquidity. See Note 10 to the Consolidated Financial Statements for discussion of the nature and terms of our unconditional purchase obligations and guarantees.

In addition to the above, we also have recorded obligations related to liabilities associated with environmental remediation costs and non-cancelable operating lease obligations, which are discussed further in Notes 3 and 7 to the Consolidated Financial Statements, respectively.

Summary of Cash and Cash Equivalents, Restricted Trust and Escrow Accounts and Debt Obligations

The following is a summary of our cash and cash equivalents, restricted trust and escrow accounts and debt balances as of December 31 (in millions):

	2021	2020
Cash and cash equivalents	$ 118	$ 553
Restricted trust and escrow accounts:		
Insurance reserves	$ 305	$ 306
Final capping, closure, post-closure and environmental remediation funds	118	114
Other	5	2
Total restricted trust and escrow accounts (a)	$ 428	$ 422
Debt:		
Current portion	$ 708	$ 551
Long-term portion	12,697	13,259
Total debt	$ 13,405	$ 13,810

(a) As of December 31, 2021 and 2020, $80 million and $75 million, respectively, of these account balances was included in other current assets in our Consolidated Balance Sheets.

Cash and cash equivalents — The decrease in cash and cash equivalents during 2021 is primarily due to the use of available cash to retire certain high-coupon senior notes in May 2021, which is discussed above in *Loss on Early Extinguishment of Debt, Net*.

Debt — We use long-term borrowings in addition to the cash we generate from operations as part of our overall financial strategy to support and grow our business. We primarily use senior notes and tax-exempt bonds to borrow on a long-term basis, but we also use other instruments and facilities, when appropriate. The components of our borrowings as of December 31, 2021 are described in Note 6 to the Consolidated Financial Statements.

As of December 31, 2021, we had $3.1 billion of debt maturing within the next 12 months, including (i) $1.8 billion of short-term borrowings under our commercial paper program (net of related discount on issuance); (ii) $645 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months, which is prior to their scheduled maturities; (iii) $500 million of 2.90% senior notes that mature in September 2022 and (iv) $170 million of other debt with scheduled maturities within the next 12 months, including $71 million of tax-exempt bonds. As of December 31, 2021, we have classified $2.4 billion of debt maturing in the next 12 months as long term because we have the intent and ability to refinance these borrowings on a long-term basis as supported by the forecasted available capacity under our $3.5 billion long-term U.S. and Canadian revolving credit facility ("$3.5 billion revolving credit facility"). The remaining $708 million of debt maturing in the next 12 months is classified as current obligations.

As of December 31, 2021, we also had $54 million of variable-rate tax-exempt bonds with long-term scheduled maturities supported by letters of credit under our $3.5 billion revolving credit facility. The interest rates on our variable rate tax-exempt bonds are reset on a weekly basis through a remarketing process. All recent tax-exempt bond remarketings have successfully placed Company bonds with investors at market-driven rates and we currently expect future remarketings to be successful. However, if the remarketing agent is unable to remarket our bonds, the remarketing agent can put the bonds to us. In the event of a failed remarketing, we have the availability under our $3.5 billion revolving credit facility to fund these bonds until they are remarketed successfully. Accordingly, we have classified the $54 million of variable-rate tax-exempt bonds with maturities of more than one year as long-term in our Consolidated Balance Sheet as of December 31, 2021.

In May 2021, WMI issued $950 million of senior notes consisting of $475 million of 2.00% senior notes due June 1, 2029 and $475 million of 2.95% senior notes due June 15, 2041. The net proceeds from these debt issuances were $942 million, all of which were used along with available cash on hand, to retire $1.3 billion of certain high-coupon senior notes. The cash paid included the principal amount of the debt retired, $211 million of related premiums and other third-party costs, which are classified as loss on early extinguishment of debt in our Consolidated Statement of Operations, and $15 million of accrued interest. See Note 6 to the Consolidated Financial Statements for more information related to the debt transactions.

We have credit lines in place to support our liquidity and financial assurance needs. The following table summarizes our outstanding letters of credit, categorized by type of facility as of December 31 (in millions):

	2021	2020
Revolving credit facility (a)	$ 167	$ 270
Other letter of credit lines (b)	764	566
	$ 931	$ 836

(a) As of December 31, 2021, we had an unused and available credit capacity of $1.5 billion.

(b) As of December 31, 2021, these other letter of credit lines are uncommitted with terms extending through April 2023.

Guarantor Financial Information

WM Holdings has fully and unconditionally guaranteed all of WMI's senior indebtedness. WMI has fully and unconditionally guaranteed all of WM Holdings' senior indebtedness. None of WMI's other subsidiaries have guaranteed any of WMI's or WM Holdings' debt. In lieu of providing separate financial statements for the subsidiary issuer and guarantor (WMI and WM Holdings), we have presented the accompanying supplemental summarized combined balance sheet and income statement information for WMI and WM Holdings on a combined basis after elimination of intercompany transactions between WMI and WM Holdings and amounts related to investments in any subsidiary that is a non-guarantor (in millions):

	December 31, 2021
Balance Sheet Information:	
Current assets	$ 6
Noncurrent assets	13
Current liabilities	590
Noncurrent liabilities:	
Advances due to affiliates	18,033
Other noncurrent liabilities	10,778

	Year Ended December 31, 2021
Income Statement Information:	
Revenue	$ —
Operating income	—
Net loss	343

Summary of Cash Flow Activity

The following is a summary of our cash flows for the year ended December 31 (in millions):

	2021	2020	2019
Net cash provided by operating activities	$ 4,338	$ 3,403	$ 3,874
Net cash used in investing activities	$ (1,894)	$ (4,847)	$ (2,376)
Net cash (used in) provided by financing activities	$ (2,900)	$ (1,559)	$ 1,964

Net Cash Provided by Operating Activities — Our operating cash flows for 2021, as compared with 2020, increased by $935 million primarily as a result of (i) an increase in earnings primarily attributable to our collection, disposal and recycling lines of business; (ii) our acquisition of Advanced Disposal; (iii) lower interest payments in 2021 primarily due to certain refinancing activities and the retirement of high-coupon debt during 2020 reducing our overall interest rates; (iv) lower income taxes paid in 2021 and (v) favorable changes in our working capital, net of effects of acquisitions and divestitures. Our working capital was favorably impacted by process improvements that contributed to a significant improvement in our days-to-collect metrics. These favorable impacts were partially offset by the timing of cash tax benefits received in 2020 associated with federal alternative fuel tax credits.

Our operating cash flows for 2020, as compared with 2019, decreased by $471 million as a result of (i) higher income tax payments related to a taxable gain on the sale of Advanced Disposal assets to GFL Environmental; (ii) increased interest payments and integration related spending due to our acquisition of Advanced Disposal; (iii) payments associated with investments we made in our digital platform and (iv) to a lesser extent, lower earnings on our traditional Solid Waste business primarily caused by the impact of the COVID-19 pandemic. These results were partially offset by cash benefits in 2020 associated with the 2019 federal alternative fuel credits.

Net Cash Used in Investing Activities — The most significant items affecting the comparison of our investing cash flows for the periods presented are summarized below:

- *Acquisitions* — Our spending on acquisitions was $76 million, $4,088 million and $527 million in 2021, 2020 and 2019, respectively, of which $75 million, $4,085 million and $521 million, respectively, are considered cash used in investing activities. The remaining spend is financing or operating activities related to the timing of contingent consideration paid. Substantially all of these acquisitions are related to our Solid Waste business. Our acquisition spending in 2020 and 2019 is primarily attributable to Advanced Disposal and Petro Waste Environmental LP, respectively. See Note 17 to the Consolidated Financial Statements for additional information. We continue to focus on accretive acquisitions and growth opportunities that will enhance and expand our existing service offerings.

- *Capital Expenditures* — We used $1,904 million, $1,632 million and $1,818 million for capital expenditures in 2021, 2020 and 2019, respectively. The increase in 2021 is due in part to intentional steps the Company took to accelerate growth capital spending on recycling and renewable energy projects. Additionally, in 2020 we took proactive steps to reduce the amount of capital spending required due to the decrease in volumes as a result of COVID-19. The Company continues to maintain a disciplined focus on capital management to prioritize investments in the long-term growth of our business and for the replacement of aging assets.

- *Proceeds from Divestitures* — Proceeds from divestitures of businesses and other assets, net of cash divested, were $96 million, $885 million and $49 million in 2021, 2020 and 2019, respectively. In 2021, our proceeds are primarily the result of the sale of certain non-strategic Canadian operations. In 2020, our proceeds included $856 million related to the sale of assets required to be sold by the U.S. Department of Justice in connection with our acquisition of Advanced Disposal. The remaining amounts in 2021, 2020 and 2019 generally related to the sale of fixed assets.

- *Other, Net* — Our spending within other, net was $11 million, $15 million, and $86 million in 2021, 2020 and 2019, respectively. During 2021, 2020 and 2019, we used $32 million, $14 million and $44 million, respectively, of cash from restricted cash and cash equivalents to invest in available-for-sale securities. Our 2021 cash spend was partially offset by proceeds received from the sale of an equity method investment. We also used $20 million in 2019 to make an initial cash payment associated with a low-income housing investment. In 2019, these items were partially offset by cash proceeds from the redemption of our preferred stock received in conjunction with the 2014 sale of our Puerto Rico operations.

Net Cash (Used in) Provided by Financing Activities — The most significant items affecting the comparison of our financing cash flows for the periods presented are summarized below:

- *Debt (Repayments) Borrowings* — The following summarizes our cash borrowings and repayments of debt for the year ended December 31 (in millions):

	2021	2020	2019
Borrowings:			
Revolving credit facility	$ —	$ 50	$ —
Commercial paper program (a)	6,831	3,630	8,554
364-day revolving credit facility (b)	—	3,000	—
Senior notes	942	2,479	3,971
Canadian senior notes	—	—	373
Tax-exempt bonds	175	261	339
Other debt	—	—	—
	$ 7,948	$ 9,420	$ 13,237
Repayments:			
Revolving credit facility	$ —	$ (50)	$ (11)
Commercial paper program (a)	(6,872)	(1,822)	(9,555)
364-day revolving credit facility (b)	—	(3,000)	—
Senior notes	(1,289)	(4,000)	(257)
Advanced Disposal senior notes (c)	—	(437)	—
Tax-exempt bonds	(127)	(212)	(204)
Other debt	(116)	(108)	(61)
	$ (8,404)	$ (9,629)	$ (10,088)
Net cash (repayments) borrowings	$ (456)	$ (209)	$ 3,149

(a) Beginning in 2021, we elected to report these cash flows on a gross basis. Reclassifications have been made to our prior period information for comparability purposes. Borrowings incurred in 2020 were used for the redemption of the SMR Notes and to partially fund our acquisition of Advanced Disposal. Borrowings incurred in 2021 and 2019 were primarily to support acquisitions and for general corporate purposes.

(b) In November 2020, we terminated this facility contemporaneously with repayment of all outstanding borrowings with proceeds from our November 2020 senior notes issuance.

(c) At the time of acquisition, Advanced Disposal had certain outstanding senior notes which were redeemed in 2020 pursuant to an optional redemption feature as further discussed in Note 17 to the Consolidated Financial Statements.

Refer to Note 6 to the Consolidated Financial Statements for additional information related to our debt borrowings and repayments.

- *Premiums and Other Paid on Early Extinguishment of Debt* — During 2021, we paid premiums and other third-party costs of $211 million to retire certain high-coupon notes as discussed further in Note 6 to the Consolidated Financial Statements. During 2020, we paid premiums of $30 million to redeem $3.0 billion of senior notes that contained a special mandatory redemption feature tied to the timing of the Advanced Disposal acquisition closing. During 2019, we paid premiums of $84 million to retire certain high-coupon senior notes. See *Loss on Early Extinguishment of Debt, Net* for further discussion.

- *Common Stock Repurchase Program* — For the periods presented, all share repurchases have been made in accordance with financial plans approved by our Board of Directors. We allocated $1,350 million, $402 million and $244 million of available cash to common stock repurchases during 2021, 2020, and 2019, respectively. See Note 13 to the Consolidated Financial Statements for additional information.

We announced in December 2021 that the Board of Directors has authorized up to $1.5 billion in future share repurchases. Any future share repurchases will be made at the discretion of management and will depend on factors similar to those considered by the Board of Directors in making dividend declarations and listed below, as well as market conditions.

- *Cash Dividends* — For the periods presented, all dividends have been declared by our Board of Directors. Cash dividends declared and paid were $970 million in 2021, or $2.30 per common share, $927 million in 2020, or $2.18 per common share, and $876 million in 2019, or $2.05 per common share.

  In December 2021, we announced that our Board of Directors expects to increase the quarterly dividend from $0.575 to $0.65 per share for dividends declared in 2022. However, all future dividend declarations are at the discretion of the Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans, growth and acquisitions and other factors the Board of Directors may deem relevant.

- *Exercise of Common Stock Options* — The exercise of common stock options generated financing cash inflows of $66 million, $63 million and $67 million during 2021, 2020 and 2019, respectively.

Free Cash Flow

We are presenting free cash flow, which is a non-GAAP measure of liquidity, in our disclosures because we use this measure in the evaluation and management of our business. We define free cash flow as net cash provided by operating activities, less capital expenditures, plus proceeds from divestitures of businesses and other assets, net of cash divested. We believe it is indicative of our ability to pay our quarterly dividends, repurchase common stock, fund acquisitions and other investments and, in the absence of refinancings, to repay our debt obligations. Free cash flow is not intended to replace net cash provided by operating activities, which is the most comparable GAAP measure. We believe free cash flow gives investors useful insight into how we view our liquidity, but the use of free cash flow as a liquidity measure has material limitations because it excludes certain expenditures that are required or that we have committed to, such as declared dividend payments and debt service requirements.

Our calculation of free cash flow and reconciliation to net cash provided by operating activities is shown in the table below for the year ended December 31 (in millions), and may not be calculated the same as similarly-titled measures presented by other companies:

	2021	2020	2019
Net cash provided by operating activities	$ 4,338	$ 3,403	$ 3,874
Capital expenditures	(1,904)	(1,632)	(1,818)
Proceeds from divestitures of businesses and other assets, net of cash divested	96	885	49
Free cash flow	$ 2,530	$ 2,656	$ 2,105

Critical Accounting Estimates and Assumptions

In preparing our financial statements, we make numerous estimates and assumptions that affect the accounting for and recognition and disclosure of assets, liabilities, equity, revenues and expenses. We must make these estimates and assumptions because certain information that we use is dependent on future events, cannot be calculated with precision from available data or simply cannot be calculated. In some cases, these estimates are difficult to determine, and we must exercise significant judgment. In preparing our financial statements, the most difficult, subjective and complex estimates and the assumptions that present the greatest amount of uncertainty relate to our accounting for landfills, environmental remediation liabilities, long-lived assets and intangible asset impairments and the fair value of assets and liabilities acquired in business combinations. Each of these items is discussed in additional detail below and in Note 2 to the Consolidated Financial Statements. Actual results could differ materially from the estimates and assumptions that we use in the preparation of our financial statements.

Landfills

Accounting for landfills requires that significant estimates and assumptions be made regarding (i) the cost to construct and develop each landfill asset; (ii) the estimated fair value of final capping, closure and post-closure asset retirement obligations, which must consider both the expected cost and timing of these activities and (iii) the determination of each landfill's remaining permitted and expansion airspace.

Landfill Costs — We estimate the total cost to develop each of our landfill sites to its remaining permitted and expansion airspace. This estimate includes such costs as landfill liner material and installation, excavation for airspace, landfill leachate collection systems, landfill gas collection systems, environmental monitoring equipment for groundwater and landfill gas, directly related engineering, capitalized interest, on-site road construction and other capital infrastructure costs. Additionally, landfill development includes all land purchases for the landfill footprint and landfill buffer property. The projection of these landfill costs is dependent, in part, on future events. The remaining amortizable basis of each landfill includes costs to develop a site to its remaining permitted and expansion airspace and includes amounts previously expended and capitalized, net of accumulated airspace amortization, and projections of future purchase and development costs.

Final Capping Costs — We estimate the cost for each final capping event based on the area to be capped and the capping materials and activities required. The estimates also consider when these costs are anticipated to be paid and factor in inflation and discount rates. Our engineering personnel allocate landfill final capping costs to specific final capping events and the capping costs are amortized as waste is disposed of at the landfill. We review these costs annually, or more often if significant facts change. Changes in estimates, such as timing or cost of construction, for final capping events immediately impact the required liability and the corresponding asset. When the change in estimate relates to a fully consumed landfill, the adjustment to the asset must be amortized immediately through expense. When the change in estimate relates to a final capping event at a landfill with remaining airspace, the adjustment to the asset is recognized in income prospectively as a component of landfill airspace amortization.

Closure and Post-Closure Costs — We base our estimates for closure and post-closure costs on our interpretations of permit and regulatory requirements for closure and post-closure monitoring and maintenance. The estimates for landfill closure and post-closure costs also consider when the costs are anticipated to be paid and factor in inflation and discount rates. The possibility of changing legal and regulatory requirements and the forward-looking nature of these types of costs make any estimation or assumption less certain. Changes in estimates for closure and post-closure events immediately impact the required liability and the corresponding asset. When the change in estimate relates to a fully consumed landfill, the adjustment to the asset must be amortized immediately through expense. When the change in estimate relates to a landfill with remaining airspace, the adjustment to the asset is recognized in income prospectively as a component of landfill airspace amortization.

Remaining Permitted Airspace — Our engineers, in consultation with third-party engineering consultants and surveyors, are responsible for determining remaining permitted airspace at our landfills. The remaining permitted airspace is determined by an annual survey, which is used to compare the existing landfill topography to the expected final landfill topography.

Expansion Airspace — We also include currently unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. First, to include airspace associated with an expansion effort, we must generally expect the initial expansion permit application to be submitted within one year and the final expansion permit to be received within five years. Second, we must believe that obtaining the expansion permit is likely, considering the following criteria:

- Personnel are actively working on the expansion of an existing landfill, including efforts to obtain land use and local, state or provincial approvals;
- We have a legal right to use or obtain land to be included in the expansion plan;

- There are no significant known technical, legal, community, business, or political restrictions or similar issues that could negatively affect the success of such expansion; and
- Financial analysis has been completed based on conceptual design, and the results demonstrate that the expansion meets Company criteria for investment.

For unpermitted airspace to be initially included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all the criteria listed above. These criteria are evaluated by our field-based engineers, accountants, managers and others to identify potential obstacles to obtaining the permits. Once the unpermitted airspace is included, our policy provides that airspace may continue to be included in remaining permitted and expansion airspace even if certain of these criteria are no longer met as long as we continue to believe we will ultimately obtain the permit, based on the facts and circumstances of a specific landfill. In these circumstances, continued inclusion must be approved through a landfill-specific review process that includes approval by our Chief Financial Officer on a quarterly basis.

When we include the expansion airspace in our calculations of remaining permitted and expansion airspace, we also include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion in the amortization basis of the landfill.

Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor ("AUF") is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using the measured density obtained from previous annual surveys and is then adjusted to account for future settlement. The amount of settlement that is forecasted will take into account several site-specific factors including current and projected mix of waste type, initial and projected waste density, estimated number of years of life remaining, depth of underlying waste, anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. In addition, the initial selection of the AUF is subject to a subsequent multi-level review by our engineering group and the AUF used is reviewed on a periodic basis and revised as necessary. Our historical experience generally indicates that the impact of settlement at a landfill is greater later in the life of the landfill when the waste placed at the landfill approaches its highest point under the permit requirements.

After determining the costs and remaining permitted and expansion capacity at each of our landfills, we determine the per ton rates that will be expensed as waste is received and deposited at the landfill by dividing the costs by the corresponding number of tons. We calculate per ton amortization rates for each landfill for assets associated with each final capping event, for assets related to closure and post-closure activities and for all other costs capitalized or to be capitalized in the future. These rates per ton are updated annually, or more often, as significant facts change.

It is possible that actual results, including the amount of costs incurred, the timing of final capping, closure and post-closure activities, our airspace utilization or the success of our expansion efforts could ultimately turn out to be significantly different from our estimates and assumptions. To the extent that such estimates, or related assumptions, prove to be significantly different than actual results, lower profitability may be experienced due to higher amortization rates or higher expenses; or higher profitability may result if the opposite occurs. Most significantly, if it is determined that expansion capacity should no longer be considered in calculating the recoverability of a landfill asset, we may be required to recognize an asset impairment or incur significantly higher amortization expense. If at any time management makes the decision to abandon the expansion effort, the capitalized costs related to the expansion effort are expensed immediately.

Environmental Remediation Liabilities

A significant portion of our operating costs and capital expenditures could be characterized as costs of environmental protection. The nature of our operations, particularly with respect to the construction, operation and maintenance of our landfills subjects us to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by operations, or for damage caused by conditions that existed before we acquired a site. These liabilities include PRP investigations, settlements, and certain legal and consultant fees, as well as costs directly associated with site investigation and clean up, such as materials, external contractor costs and incremental internal costs directly related to the remedy. We provide for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. We routinely review and evaluate sites that require remediation and determine our estimated cost for the likely remedy based on a number of estimates and assumptions.

Where it is probable that a liability has been incurred, we estimate costs required to remediate sites based on site-specific facts and circumstances. We routinely review and evaluate sites that require remediation, considering whether we were an owner, operator, transporter, or generator at the site, the amount and type of waste hauled to the site and the number of years we were associated with the site. Next, we review the same type of information with respect to other named and unnamed PRPs. Estimates of the costs for the likely remedy are then either developed using our internal resources or by third-party environmental engineers or other service providers. Internally developed estimates are based on:

- Management's judgment and experience in remediating our own and unrelated parties' sites;
- Information available from regulatory agencies as to costs of remediation;
- The number, financial resources and relative degree of responsibility of other PRPs who may be liable for remediation of a specific site; and
- The typical allocation of costs among PRPs, unless the actual allocation has been determined.

Fair Value of Nonfinancial Assets and Liabilities

Significant estimates are made in determining the fair value of long-lived tangible and intangible assets (i.e., property and equipment, intangible assets and goodwill) during the impairment evaluation process. In addition, the majority of assets acquired and liabilities assumed in a business combination are required to be recognized at fair value under the relevant accounting guidance.

Property and Equipment, Including Landfills and Definite-Lived Intangible Assets — We monitor the carrying value of our long-lived assets for potential impairment on an ongoing basis and test the recoverability of such assets generally using significant unobservable ("Level 3") inputs whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. These events or changes in circumstances, including management decisions pertaining to such assets, are referred to as impairment indicators. If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, we will determine whether an impairment has occurred for the group of assets for which we can identify the projected cash flows. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value and the difference is recorded in the period that the impairment indicator occurs. Fair value is generally determined by considering (i) internally developed discounted projected cash flow analysis of the asset or asset group; (ii) actual third-party valuations and/or (iii) information available regarding the current market for similar assets. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized, which could impact our ability to accurately assess whether an asset has been impaired.

The assessment of impairment indicators and the recoverability of our capitalized costs associated with landfills and related expansion projects require significant judgment due to the unique nature of the waste industry, the highly regulated permitting process and the sensitive estimates involved. During the review of a landfill expansion application, a regulator may initially deny the expansion application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace, or a landfill may be required to cease accepting waste, prior to receipt of the expansion permit. However, such events occur in the ordinary course of business in the waste industry and do not necessarily result in impairment of our landfill assets because, after consideration of all facts, such events may not affect our belief that we will ultimately obtain the expansion permit. As a result, our tests of recoverability, which generally make use of a probability-weighted cash flow estimation approach, may indicate that no impairment loss should be recorded.

Indefinite-Lived Intangible Assets, Including Goodwill — At least annually, and more frequently if warranted, we assess the indefinite-lived intangible assets including the goodwill of our reporting units for impairment using Level 3 inputs.

We first perform a qualitative assessment to determine if it was more likely than not that the fair value of a reporting unit was less than its carrying value. If the assessment indicates a possible impairment, we complete a quantitative review, comparing the estimated fair value of a reporting unit to its carrying amount, including goodwill. An impairment charge is recognized if the asset's estimated fair value was less than its carrying amount. Fair value is typically estimated using an income approach. However, when appropriate, we may also use a market approach. The income approach is based on the long-term projected future cash flows of the reporting units. We discount the estimated cash flows to present value using a weighted average cost of capital that considers factors such as market assumptions, the timing of the cash flows and the risks inherent in those cash flows. We believe that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term performance considering the economic and market conditions that generally affect our business. The market approach estimates fair value by measuring the aggregate market value of publicly-traded companies with similar characteristics to our business as a multiple of their reported earnings. We then apply that multiple to the reporting units' earnings to estimate their fair values. We believe that this approach may also be appropriate in certain circumstances because it provides a fair value estimate using valuation inputs from entities with operations and economic characteristics comparable to our reporting units.

Fair value is computed using several factors, including projected future operating results, economic projections, anticipated future cash flows, comparable marketplace data and the cost of capital. There are inherent uncertainties related to these factors and to our judgment in applying them in our analysis. However, we believe our methodology for estimating the fair value of our reporting units is reasonable.

Acquisitions — In accordance with the purchase method of accounting, the purchase price paid for an acquisition is allocated to the assets and liabilities acquired based upon their estimated fair values as of the acquisition date, with the excess of the purchase price over the net assets acquired recorded as goodwill. When we are in the process of valuing all of the assets and liabilities acquired in an acquisition, there can be subsequent adjustments to our estimates of fair value and resulting preliminary purchase price allocation.

See Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations — (Gain) Loss from Divestitures, Asset Impairments and Unusual Items, Net*.

Off-Balance Sheet Arrangements

We have financial interests in unconsolidated variable interest entities as discussed in Note 18 to the Consolidated Financial Statements. Additionally, we are party to guarantee arrangements with unconsolidated entities as discussed in the *Guarantees* section of Note 10 to the Consolidated Financial Statements. These arrangements have not materially affected our financial position, results of operations or liquidity during the year ended December 31, 2021, nor are they expected to have a material impact on our future financial position, results of operations or liquidity.

Inflation

Accelerated and pronounced economic pressures, particularly related to inflationary cost pressures on labor and the goods and services we rely upon to deliver service to our customers, had a more significant impact on our cost structure and capital expenditures in 2021. Our overall strategic pricing efforts are focused on recovering as much of the inflationary cost increases we experience in our business as possible by increasing our average unit rate. A significant portion of our revenue is tied to a price escalation index with a lookback provision, which has resulted in a timing lag in our ability to recover increased costs under these contracts during this period of rapid inflation. Separately, for many of our customers we provide services under multi-year contracts that can restrict our ability to increase prices and the timing of such increases. As we enter 2022, many of these contract lookback provisions will begin to capture the recent inflationary cost increases in the price escalation calculation. We are taking proactive steps to recover inflationary cost pressures through the price of our service and by managing our costs through efficiency, labor productivity and investments in technology to automate certain aspects of our business in order to mitigate the inflationary cost pressures we have seen in our business. Refer to Item 1A. *Risk Factors* for further discussion.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

In the normal course of business, we are exposed to market risks, including changes in interest rates, certain commodity prices and Canadian currency rates. From time to time, we use derivatives to manage some portion of these risks. The Company had no derivatives outstanding as of December 31, 2021.

Interest Rate Exposure — Our exposure to market risk for changes in interest rates relates primarily to our financing activities. As of December 31, 2021, we had $13.5 billion of long-term debt, excluding the impacts of accounting for debt issuance costs, discounts and fair value adjustments attributable to terminated interest rate derivatives. We have $2.5 billion of debt that is exposed to changes in market interest rates within the next 12 months comprised of (i) $1.8 billion of short-term borrowings under our commercial paper program; (ii) $645 billion of tax-exempt bonds with term interest rate periods that expire within the next 12 months and (iii) $54 million of variable-rate tax-exempt bonds that are subject to repricing on a weekly basis. We currently estimate that a 100-basis point increase in the interest rates of our outstanding variable-rate debt obligations would increase our 2022 interest expense by $7 million.

Our remaining outstanding debt obligations have fixed interest rates through either the scheduled maturity of the debt or, for certain of our fixed-rate tax-exempt bonds, through the end of a term interest rate period that exceeds 12 months. The fair value of our fixed-rate debt obligations can increase or decrease significantly if market interest rates change.

We performed a sensitivity analysis to determine how market rate changes might affect the fair value of our market risk-sensitive debt instruments. This analysis is inherently limited because it reflects a singular, hypothetical set of assumptions. Actual market movements may vary significantly from our assumptions. An instantaneous, 100-basis point increase in interest rates across all maturities attributable to these instruments would have decreased the fair value of our debt by approximately $900 million as of December 31, 2021.

We are also exposed to interest rate market risk from our cash and cash equivalent balances, as well as assets held in restricted trust funds and escrow accounts. These assets are generally invested in high-quality, liquid instruments including money market funds that invest in U.S. government obligations with original maturities of three months or less. We believe that our exposure to changes in fair value of these assets due to interest rate fluctuations is insignificant as the fair value generally approximates our cost basis. We also invest a portion of our restricted trust and escrow account balances in available-for-sale securities, including U.S. Treasury securities, U.S. agency securities, municipal securities, mortgage- and asset-backed securities, which generally mature over the next nine years, as well as equity securities.

Commodity Price Exposure — In the normal course of our business, we are subject to operating agreements that expose us to market risks arising from changes in the prices for commodities such as diesel fuel, electricity and recycled materials, including old corrugated cardboard and plastics. We work to manage these risks through operational strategies that focus on capturing our costs in the prices we charge our customers for the services provided. Accordingly, as the market prices for these commodities increase or decrease, our revenues, operating costs and margins may also increase or decrease. As discussed in Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*, we saw significant increases in commodity prices and demand for recycled materials in 2021, resulting in increased annual revenue for our recycling business of $537 million. Variability in commodity prices can also impact the margins of our business as certain components of our revenue are structured as a pass through of costs, including recycling brokerage and fuel surcharges.

Currency Rate Exposure — We have operations in Canada as well as certain support functions in India. Where significant, we have quantified and described the impact of foreign currency translation on components of income, including operating revenue and operating expenses. However, the impact of foreign currency has not materially affected our results of operations.

Item 8. ***Financial Statements and Supplementary Data.***

INDEX TO

CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Waste Management, Inc.

Opinion on Internal Control over Financial Reporting

We have audited Waste Management, Inc.'s internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, Waste Management, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the 2021 consolidated financial statements of the Company, and our report dated February 15, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ ERNST & YOUNG LLP

Houston, Texas
February 15, 2022

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Waste Management, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Waste Management, Inc. (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income, cash flows, and changes in equity for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 15, 2022 expressed an unqualified opinion thereon.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Landfill Amortization

Description of the Matter	At December 31, 2021, the Company's landfill assets, net of accumulated amortization, totaled $7.3 billion and the associated amortization expense for 2021 was $731 million. As discussed in Note 2 of the financial statements, the Company updates the estimates used to calculate individual landfill amortization rates at least annually, or more often if significant facts change. Landfill amortization rates are used in the computation of landfill amortization expense. Auditing landfill amortization rates and related amortization expense is complex due to the highly judgmental nature of assumptions used in estimating the rates. Significant assumptions used in the calculation of the rates include: estimated future development costs associated with the construction and retirement of the landfill, estimated remaining permitted airspace and unpermitted expansion airspace, airspace utilization factors, projected annual tonnage intakes, and projected timing of retirement activities.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company's controls over determining landfill amortization rates and calculating amortization expense. Our audit procedures included, among others, testing controls over: the Company's process for evaluating and updating the significant assumptions used in the development of the landfill amortization rates, management's review of those significant assumptions, and the mathematical accuracy of the calculation and recording of amortization expense. To test the landfill asset amortization rates, our audit procedures included, among others, assessing methodologies used by the Company and testing the significant assumptions discussed above, inclusive of the underlying data used by the Company in its development of these assumptions. We compared the significant assumptions used by management to historical trends and, when available, to comparable size landfills accepting a similar type of waste. Regarding unpermitted expansion airspace, we evaluated the Company's criteria for inclusion in remaining airspace. In addition, we considered the professional qualifications and objectivity of management's internal engineers responsible for developing the assumptions. We involved EY's engineering specialists to assist with the evaluation of the Company's landfill future development cost and airspace assumptions. We also tested the completeness and accuracy of the historical data utilized in the development of the landfill amortization rates.

Landfill – Final Capping, Closure and Post-Closure Costs

Description of the Matter	At December 31, 2021, the carrying value of the Company's landfill asset retirement obligations related to final capping, closure and post-closure costs totaled $2.3 billion. As discussed in Note 2 of the financial statements, the Company updates the estimates used to measure the asset retirement obligations annually, or more often if significant facts change. Auditing the landfill asset retirement obligation is complex due to the highly judgmental nature of the assumptions used in the measurement process. These assumptions include: estimated future costs associated with the capping, closure and post closure activities at each specific landfill; airspace consumed to date in relation to total estimated permitted airspace; the projected annual tonnage intake; and the projected timing of retirement activities.
How We Addressed the Matter in Our Audit	We obtained an understanding, evaluated the design, and tested the operating effectiveness of the Company's controls over the calculation of asset retirement obligations. Our audit procedures included, among others, testing the Company's controls over the landfill asset retirement obligation estimation process and management's review of the significant assumptions used in the estimation of the liability, including the amount and timing of retirement costs. To test the landfill asset retirement obligation valuation, we performed audit procedures that included, among others, assessing methodologies used by the Company, testing the completeness of activities included in the estimate (e.g., gas monitoring and extraction), and testing the significant assumptions discussed above, inclusive of the underlying data used by the Company in its development of these assumptions. We compared the significant assumptions used by management to historical trends and, when available, to comparable size landfills accepting the same type of waste. In addition, we considered the professional qualifications and objectivity of management's internal engineers responsible for developing the assumptions. We involved EY engineering specialists to assist us with these procedures. Specifically, we utilized the EY engineering specialists to evaluate the reasons for significant changes in assumptions from the historical trend, and to determine whether the change from the historical trend was appropriate and identified timely. We also tested the completeness and accuracy of the historical data utilized in preparing the estimate.

/s/ ERNST & YOUNG LLP

We have served as the Company's auditor since 2002.

Houston, Texas
February 15, 2022

WASTE MANAGEMENT, INC.

CONSOLIDATED BALANCE SHEETS
(In Millions, Except Share and Par Value Amounts)

	December 31, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 118	$ 553
Accounts receivable, net of allowance for doubtful accounts of $25 and $33, respectively	2,278	2,097
Other receivables, net of allowance for doubtful accounts of $8 and $7, respectively	268	527
Parts and supplies	135	124
Other assets	270	239
Total current assets	3,069	3,540
Property and equipment, net of accumulated depreciation and amortization of $20,537 and $19,337, respectively	14,419	14,148
Goodwill	9,028	8,994
Other intangible assets, net	898	1,024
Restricted trust and escrow accounts	348	347
Investments in unconsolidated entities	432	426
Other assets	903	866
Total assets	$ 29,097	$ 29,345
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 1,375	$ 1,121
Accrued liabilities	1,428	1,342
Deferred revenues	571	539
Current portion of long-term debt	708	551
Total current liabilities	4,082	3,553
Long-term debt, less current portion	12,697	13,259
Deferred income taxes	1,694	1,806
Landfill and environmental remediation liabilities	2,373	2,222
Other liabilities	1,125	1,051
Total liabilities	21,971	21,891
Commitments and contingencies (Note 10)		
Equity:		
Waste Management, Inc. stockholders' equity:		
Common stock, $0.01 par value; 1,500,000,000 shares authorized; 630,282,461 shares issued	6	6
Additional paid-in capital	5,169	5,129
Retained earnings	12,004	11,159
Accumulated other comprehensive income (loss)	17	39
Treasury stock at cost, 214,158,636 and 207,480,827 shares, respectively	(10,072)	(8,881)
Total Waste Management, Inc. stockholders' equity	7,124	7,452
Noncontrolling interests	2	2
Total equity	7,126	7,454
Total liabilities and equity	$ 29,097	$ 29,345

See Notes to Consolidated Financial Statements.

WASTE MANAGEMENT, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS
(In Millions, Except per Share Amounts)

	Year Ended December 31,		
	2021	2020	2019
Operating revenues	$ 17,931	$ 15,218	$ 15,455
Costs and expenses:			
Operating	11,111	9,341	9,496
Selling, general and administrative	1,864	1,728	1,631
Depreciation and amortization	1,999	1,671	1,574
Restructuring	8	9	6
(Gain) loss from divestitures, asset impairments and unusual items, net	(16)	35	42
	14,966	12,784	12,749
Income from operations	2,965	2,434	2,706
Other income (expense):			
Interest expense, net	(365)	(425)	(411)
Loss on early extinguishment of debt, net	(220)	(53)	(85)
Equity in net losses of unconsolidated entities	(36)	(68)	(55)
Other, net	5	5	(50)
	(616)	(541)	(601)
Income before income taxes	2,349	1,893	2,105
Income tax expense	532	397	434
Consolidated net income	1,817	1,496	1,671
Less: Net income (loss) attributable to noncontrolling interests	1	—	1
Net income attributable to Waste Management, Inc.	$ 1,816	$ 1,496	$ 1,670
Basic earnings per common share	$ 4.32	$ 3.54	$ 3.93
Diluted earnings per common share	$ 4.29	$ 3.52	$ 3.91

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(In Millions)

	Year Ended December 31,		
	2021	2020	2019
Consolidated net income	$ 1,817	$ 1,496	$ 1,671
Other comprehensive income (loss), net of tax:			
Derivative instruments, net	9	15	8
Available-for-sale securities, net	(6)	11	15
Foreign currency translation adjustments	(28)	20	55
Post-retirement benefit obligation, net	3	1	1
Other comprehensive income (loss), net of tax	(22)	47	79
Comprehensive income	1,795	1,543	1,750
Less: Comprehensive income (loss) attributable to noncontrolling interests	1	—	1
Comprehensive income attributable to Waste Management, Inc.	$ 1,794	$ 1,543	$ 1,749

See Notes to Consolidated Financial Statements.

WASTE MANAGEMENT, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Millions)

	Year Ended December 31,		
	2021	2020	2019
Cash flows from operating activities:			
Consolidated net income	$ 1,817	$ 1,496	$ 1,671
Adjustments to reconcile consolidated net income to net cash provided by operating activities:			
Depreciation and amortization	1,999	1,671	1,574
Deferred income tax expense (benefit)	(77)	165	100
Interest accretion on landfill and environmental remediation liabilities	111	103	98
Provision for bad debts	37	54	39
Equity-based compensation expense	108	94	86
Net gain on disposal of assets	(25)	(9)	(27)
(Gain) loss from divestitures, asset impairments and other, net	(16)	43	113
Equity in net losses of unconsolidated entities, net of dividends	38	60	55
Loss on early extinguishment of debt, net	220	53	85
Change in operating assets and liabilities, net of effects of acquisitions and divestitures:			
Receivables	28	(179)	(53)
Other current assets	(39)	10	(23)
Other assets	34	53	10
Accounts payable and accrued liabilities	206	(37)	243
Deferred revenues and other liabilities	(103)	(174)	(97)
Net cash provided by operating activities	4,338	3,403	3,874
Cash flows from investing activities:			
Acquisitions of businesses, net of cash acquired	(75)	(4,085)	(521)
Capital expenditures	(1,904)	(1,632)	(1,818)
Proceeds from divestitures of businesses and other assets, net of cash divested	96	885	49
Other, net	(11)	(15)	(86)
Net cash used in investing activities	(1,894)	(4,847)	(2,376)
Cash flows from financing activities:			
New borrowings	7,948	9,420	13,237
Debt repayments	(8,404)	(9,629)	(10,088)
Premiums and other paid on early extinguishment of debt	(211)	(30)	(84)
Common stock repurchase program	(1,350)	(402)	(248)
Cash dividends	(970)	(927)	(876)
Exercise of common stock options	66	63	67
Tax payments associated with equity-based compensation transactions	(28)	(34)	(33)
Other, net	49	(20)	(11)
Net cash (used in) provided by financing activities	(2,900)	(1,559)	1,964
Effect of exchange rate changes on cash, cash equivalents and restricted cash and cash equivalents	2	4	2
(Decrease) increase in cash, cash equivalents and restricted cash and cash equivalents	(454)	(2,999)	3,464
Cash, cash equivalents and restricted cash and cash equivalents at beginning of period	648	3,647	183
Cash, cash equivalents and restricted cash and cash equivalents at end of period	$ 194	$ 648	$ 3,647
Reconciliation of cash, cash equivalents and restricted cash and cash equivalents at end of period:			
Cash and cash equivalents	$ 118	$ 553	$ 3,561
Restricted cash and cash equivalents included in other current assets	7	28	15
Restricted cash and cash equivalents included in restricted trust and escrow accounts	69	67	71
Cash, cash equivalents and restricted cash and cash equivalents at end of period	$ 194	$ 648	$ 3,647

See Notes to Consolidated Financial Statements.

WASTE MANAGEMENT, INC.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In Millions, Except Shares in Thousands)

		Waste Management, Inc. Stockholders' Equity							
		Common Stock		Additional Paid-In	Retained	Accumulated Other Comprehensive	Treasury Stock		Noncontrolling
	Total	Shares	Amounts	Capital	Earnings	Income (Loss)	Shares	Amounts	Interests
Balance, December 31, 2018	$ 6,276	630,282	$ 6	$ 4,993	$ 9,797	$ (87)	(206,299)	$ (8,434)	$ 1
Consolidated net income	1,671	—	—	—	1,670	—	—	—	1
Other comprehensive income (loss), net of tax	79	—	—	—	—	79	—	—	—
Cash dividends declared of $2.05 per common share	(876)	—	—	—	(876)	—	—	—	—
Equity-based compensation transactions, net of tax	164	—	—	56	1	—	2,585	107	—
Common stock repurchase program	(244)	—	—	—	—	—	(2,247)	(244)	—
Other, net	—	—	—	—	—	—	5	—	—
Balance, December 31, 2019	$ 7,070	630,282	$ 6	$ 5,049	$ 10,592	$ (8)	(205,956)	$ (8,571)	$ 2
Adoption of new accounting standards	(2)	—	—	—	(2)	—	—	—	—
Consolidated net income	1,496	—	—	—	1,496	—	—	—	—
Other comprehensive income (loss), net of tax	47	—	—	—	—	47	—	—	—
Cash dividends declared of $2.18 per common share	(927)	—	—	—	(927)	—	—	—	—
Equity-based compensation transactions, net	172	—	—	80	1	—	2,158	91	—
Common stock repurchase program	(402)	—	—	—	—	—	(3,687)	(402)	—
Other, net	—	—	—	—	(1)	—	4	1	—
Balance, December 31, 2020	$ 7,454	630,282	$ 6	$ 5,129	$ 11,159	$ 39	(207,481)	$ (8,881)	$ 2
Consolidated net income	1,817	—	—	—	1,816	—	—	—	1
Other comprehensive income (loss), net of tax	(22)	—	—	—	—	(22)	—	—	—
Cash dividends declared of $2.30 per common share	(970)	—	—	—	(970)	—	—	—	—
Equity-based compensation transactions, net	198	—	—	110	(1)	—	2,049	89	—
Common stock repurchase program	(1,350)	—	—	(70)	—	—	(8,731)	(1,280)	—
Other, net	(1)	—	—	—	—	—	4	—	(1)
Balance, December 31, 2021	$ 7,126	630,282	$ 6	$ 5,169	$ 12,004	$ 17	(214,159)	$ (10,072)	$ 2

See Notes to Consolidated Financial Statements.

1. Basis of Presentation

The financial statements presented in this report represent the consolidation of Waste Management, Inc., a Delaware corporation; its wholly-owned and majority-owned subsidiaries; and certain variable interest entities for which Waste Management, Inc. or its subsidiaries are the primary beneficiaries as described in Note 18. Waste Management, Inc. is a holding company and all operations are conducted by its subsidiaries. When the terms "the Company," "we," "us" or "our" are used in this document, those terms refer to Waste Management, Inc., its consolidated subsidiaries and consolidated variable interest entities. When we use the term "WMI," we are referring only to Waste Management, Inc., the parent holding company.

We are North America's leading provider of comprehensive waste management environmental services, providing services throughout the United States ("U.S.") and Canada. We partner with our residential, commercial, industrial and municipal customers and the communities we serve to manage and reduce waste at each stage from collection to disposal, while recovering valuable resources and creating clean, renewable energy. Our "Solid Waste" business is operated and managed locally by our subsidiaries that focus on distinct geographic areas and provide collection, transfer, disposal, and recycling and resource recovery services. Through our subsidiaries, we are also a leading developer, operator and owner of landfill gas-to-energy facilities in the U.S.

In 2021, our senior management began evaluating, overseeing and managing the financial performance of our Solid Waste operations through two operating segments. Our East Tier primarily consists of geographic areas located in the Eastern U.S., the Great Lakes region and substantially all of Canada. Our West Tier primarily includes geographic areas located in the Western U.S., including the upper Midwest region, and British Columbia, Canada. Each of our Solid Waste operating segments provides integrated environmental services, including collection, transfer, recycling, and disposal. The Company finalized the assessment of our segments during the fourth quarter of 2021. The East and West Tiers are presented in this report and constitute our existing Solid Waste business. On October 30, 2020, we acquired Advanced Disposal Services, Inc. ("Advanced Disposal"), the operations of which are presented in this report within our existing Solid Waste tiers. We also provide additional services that are not managed through our Solid Waste business, which are presented in this report as "Other." Additional information related to our acquisition of Advanced Disposal and segments is included in Notes 17 and 19.

Reclassifications

When necessary, reclassifications have been made to our prior period financial information to conform to the current year presentation and are not material to our consolidated financial statements. In our Annual Report on Form 10-K for the year ended December 31, 2020, our accumulated depreciation and gross property and equipment balances as of December 31, 2020 were overstated. We subsequently corrected the balances in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 and have provided the corrected balances in all filings thereafter.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying Consolidated Financial Statements include the accounts of WMI, its wholly-owned and majority-owned subsidiaries and certain variable interest entities for which we have determined that we are the primary beneficiary. All material intercompany balances and transactions have been eliminated. Investments in unconsolidated entities are accounted for under the appropriate method of accounting.

Estimates and Assumptions

In preparing our financial statements, we make numerous estimates and assumptions that affect the accounting for and recognition and disclosure of assets, liabilities, equity, revenues and expenses. We must make these estimates and assumptions because certain information that we use is dependent on future events, cannot be calculated with precision from available data or simply cannot be calculated. In some cases, these estimates are difficult to determine, and we must exercise significant judgment. In preparing our financial statements, the most difficult, subjective and complex estimates and the assumptions that present the greatest amount of uncertainty relate to our accounting for landfills, environmental remediation liabilities, long-lived assets and intangible asset impairments and the fair value of assets and liabilities acquired in business combinations. Each of these items is discussed in additional detail below. Actual results could differ materially from the estimates and assumptions that we use in the preparation of our financial statements.

Cash and Cash Equivalents

Cash in excess of current operating requirements is invested in short-term interest-bearing instruments with maturities of three months or less at the date of purchase and is stated at cost, which approximates market value.

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents, investments held within our restricted trust and escrow accounts, and accounts receivable. We make efforts to control our exposure to credit risk associated with these instruments by (i) placing our assets and other financial interests with a diverse group of credit-worthy financial institutions; (ii) holding high-quality financial instruments while limiting investments in any one instrument and (iii) maintaining strict policies over credit extension that include credit evaluations, credit limits and monitoring procedures, although generally we do not have collateral requirements for credit extensions. We also control our exposure associated with trade receivables by discontinuing service, to the extent allowable, to non-paying customers. However, our overall credit risk associated with trade receivables is limited due to the large number and diversity of customers we serve. As of December 31, 2021 and 2020, no single customer represented greater than 5% of total accounts receivable.

Accounts and Other Receivables

Our receivables, which are recorded when billed, when services are performed or when cash is advanced, are claims against third parties that will generally be settled in cash. The carrying value of our receivables, net of the allowance for doubtful accounts, represents the estimated net realizable value. We estimate our allowance for doubtful accounts based on historical collection trends; type of customer, such as municipal or commercial; the age of outstanding receivables and existing as well as expected economic conditions. If events or changes in circumstances indicate that specific receivable balances may be impaired, further consideration is given to the collectability of those balances and the allowance is adjusted accordingly. Past-due receivable balances are written off when our internal collection efforts have been unsuccessful. Also, we recognize interest income on long-term interest-bearing notes receivable as the interest accrues under the terms of the notes. We no longer accrue interest once the notes are deemed uncollectible.

The following table reflects the activity in our allowance for doubtful accounts of trade receivables for the year ended December 31 (in millions):

	2021	2020
Balance as of January 1,	$ 33	$ 28
Adoption of new accounting standard	—	(1)
Additions charged to expense	35	51
Accounts written-off, net of recoveries	(36)	(44)
Acquisitions, divestitures and other, net	(7)	(1)
Balance as of December 31,	$ 25	$ 33

For trade receivables the Company relies upon, among other factors, historical loss trends, the age of outstanding receivables, and existing as well as expected economic conditions. We determined that all of our trade receivables share similar risk characteristics. We monitor our credit exposure on an ongoing basis and assess whether assets in the pool continue to display similar risk characteristics.

As of December 31, 2021, we had $2,278 million of trade receivables, net of allowance for doubtful accounts of $25 million. As of December 31, 2020, we had $2,097 million of trade receivables, net of allowance for doubtful accounts of $33 million. In January 2020, COVID-19 was declared a Public Health Emergency of International Concern and subsequently declared a global pandemic in March 2020. With this in mind, during 2020, we extended payment terms and postponed collections and service discontinuation for customers who were negatively impacted by the COVID-19 pandemic. These actions contributed to an increase in the aging of outstanding balances during the year and resulted in a related increase in our allowance for doubtful accounts. Improved economic conditions during 2021 have allowed us to return to more regular business practices, in accordance with our contractual terms. Based on aging analyses as of both December 31, 2021 and 2020, approximately 90% of our trade receivables were outstanding less than 60 days.

For other receivables, as well as loans and other instruments, the Company relies primarily on credit ratings and associated default rates based on the maturity of the instrument. All receivables, as well as other instruments, are adjusted for our expectation of future market conditions and trends. As of December 31, 2021, we had $451 million of notes and other receivables, net of allowance of $10 million. As of December 31, 2020, we had $703 million of notes and other receivables, net of allowance of $8 million. Based on an aging analysis as of December 31, 2021 and 2020, approximately 60% and 75%, respectively, of our other receivables were due within 12 months or less.

Other receivables, as of December 31, 2021 and 2020, include receivables related to income tax payments in excess of our current income tax obligations of $166 million and $414 million, respectively. Other receivables as of December 31, 2021 and 2020 also include a receivable of $14 million and $20 million, respectively, related to federal natural gas fuel credits.

Parts and Supplies

Parts and supplies consist primarily of spare parts, fuel, tires, lubricants and processed recycling materials. Our parts and supplies are stated at the lower of cost, using the average cost method, or market.

Landfill Accounting

Cost Basis of Landfill Assets — We capitalize various costs that we incur to make a landfill ready to accept waste. These costs generally include expenditures for land (including the landfill footprint and required landfill buffer property); permitting; excavation; liner material and installation; landfill leachate collection systems; landfill gas collection systems; environmental monitoring equipment for groundwater and landfill gas; and directly related engineering, capitalized interest, on-site road construction and other capital infrastructure costs. The cost basis of our landfill assets also includes asset retirement costs, which represent estimates of future costs associated with landfill final capping, closure and post-closure activities. These costs are discussed below.

Final Capping, Closure and Post-Closure Costs — Following is a description of our asset retirement activities and our related accounting:

- *Final Capping* — Involves the installation of flexible membrane liners and geosynthetic clay liners, drainage and compacted soil layers and topsoil over areas of a landfill where total airspace has been consumed. Final capping asset retirement obligations are recorded on a units-of-consumption basis as airspace is consumed related to the specific final capping event with a corresponding increase in the landfill asset. Each final capping event is accounted for as a discrete obligation and recorded as an asset and a liability based on estimates of the discounted cash flows and airspace associated with each final capping event.
- *Closure* — Includes the construction of the final portion of methane gas collection systems (when required), demobilization and routine maintenance costs. These are costs incurred after the site ceases to accept waste, but before the landfill is certified as closed by the applicable state regulatory agency. These costs are recorded as an asset retirement obligation as airspace is consumed over the life of the landfill with a corresponding increase in the landfill asset. Closure obligations are recorded over the life of the landfill based on estimates of the discounted cash flows associated with performing closure activities.
- *Post-Closure* — Involves the maintenance and monitoring of a landfill site that has been certified closed by the applicable regulatory agency. Generally, we are required to maintain and monitor landfill sites for a 30-year period. These maintenance and monitoring costs are recorded as an asset retirement obligation as airspace is consumed over the life of the landfill with a corresponding increase in the landfill asset. Post-closure obligations are recorded over the life of the landfill based on estimates of the discounted cash flows associated with performing post-closure activities.

We develop our estimates of these obligations using input from our operations personnel, engineers and accountants. Our estimates are based on our interpretation of current requirements and proposed regulatory changes and are intended to approximate fair value. Absent quoted market prices, the estimate of fair value is based on the best available information, including the results of present value techniques. In many cases, we contract with third parties to fulfill our obligations for final capping, closure and post-closure. We use historical experience, professional engineering judgment and quoted or actual prices paid for similar work to determine the fair value of these obligations. We are required to recognize these obligations at market prices whether we plan to contract with third parties or perform the work ourselves. In those instances where we perform the work with internal resources, the incremental profit margin realized is recognized as a component of operating income when the work is completed.

Once we have determined final capping, closure and post-closure costs, we inflate those costs to the expected time of payment and discount those expected future costs back to present value. As of December 31, 2021, 2020 and 2019, we inflated these costs in current dollars to the expected time of payment using an inflation rate of 2.25%, 2.25% and 2.5%, respectively. We discounted these costs to present value using the credit-adjusted, risk-free rate effective at the time an obligation is incurred, consistent with the expected cash flow approach. Any changes in expectations that result in an upward revision to the estimated cash flows are treated as a new liability and discounted at the current rate while downward revisions are discounted at the historical weighted average rate of the recorded obligation. As a result, the credit-adjusted, risk-free discount rate used to calculate the present value of an obligation is specific to each individual asset retirement obligation. The weighted average rate applicable to our long-term asset retirement obligations as of December 31, 2021 was approximately 4.6%.

We record the estimated fair value of final capping, closure and post-closure liabilities for our landfills based on the airspace consumed through the current period. The fair value of final capping obligations is developed based on our estimates of the airspace consumed to date for each final capping event and the expected timing of each final capping event. The fair value of closure and post-closure obligations is developed based on our estimates of the airspace consumed to date for the entire landfill and the expected timing of each closure and post-closure activity. Because these obligations are measured at estimated fair value using present value techniques, changes in the estimated cost or timing of future final capping, closure and post-closure activities could result in a material change in these liabilities, related assets and results of operations. We assess the appropriateness of the estimates used to develop our recorded balances annually, or more often if significant facts change.

Sustained changes in inflation rates or the estimated costs, timing or extent of future final capping, closure and post-closure activities typically result in both (i) a current adjustment to the recorded liability and landfill asset and (ii) a change in liability and asset amounts to be recorded prospectively over either the remaining permitted and expansion airspace (as defined below) of the related discrete final capping event or the remaining permitted and expansion airspace of the landfill, as appropriate. Any changes related to the capitalized and future cost of the landfill assets are then recognized in accordance with our amortization policy, which would generally result in amortization expense being recognized prospectively over the remaining permitted and expansion airspace of the final capping event or the remaining permitted and expansion airspace of the landfill, as appropriate. Changes in such estimates associated with airspace that has been fully utilized result in an adjustment to the recorded liability and landfill assets with an immediate corresponding adjustment to landfill airspace amortization expense.

Interest accretion on final capping, closure and post-closure liabilities is recorded using the effective interest method and is recorded as final capping, closure and post-closure expense, which is included in operating expenses within our Consolidated Statements of Operations.

Amortization of Landfill Assets — The amortizable basis of a landfill includes (i) amounts previously expended and capitalized; (ii) capitalized landfill final capping, closure and post-closure costs; (iii) projections of future purchase and development costs required to develop the landfill site to its remaining permitted and expansion airspace and (iv) projected asset retirement costs related to landfill final capping, closure and post-closure activities.

Amortization is recorded on a units-of-consumption basis, applying expense as a rate per ton. The rate per ton is calculated by dividing each component of the amortizable basis of a landfill by the number of tons needed to fill the corresponding asset's airspace. For landfills that we do not own, but operate through lease or other contractual agreements, the rate per ton is calculated based on expected airspace to be utilized over the lesser of the contractual term of the underlying agreement or the life of the landfill.

We apply the following guidelines in determining a landfill's remaining permitted and expansion airspace:

- *Remaining Permitted Airspace* — Our engineers, in consultation with third-party engineering consultants and surveyors, are responsible for determining remaining permitted airspace at our landfills. The remaining permitted airspace is determined by an annual survey, which is used to compare the existing landfill topography to the expected final landfill topography.
- *Expansion Airspace* — We also include currently unpermitted expansion airspace in our estimate of remaining permitted and expansion airspace in certain circumstances. First, to include airspace associated with an expansion effort, we must generally expect the initial expansion permit application to be submitted within one year and the final expansion permit to be received within five years. Second, we must believe that obtaining the expansion permit is likely, considering the following criteria:
    - Personnel are actively working on the expansion of an existing landfill, including efforts to obtain land use and local, state or provincial approvals;

- We have a legal right to use or obtain land to be included in the expansion plan;
- There are no significant known technical, legal, community, business, or political restrictions or similar issues that could negatively affect the success of such expansion; and
- Financial analysis has been completed based on conceptual design, and the results demonstrate that the expansion meets Company criteria for investment.

For unpermitted airspace to be initially included in our estimate of remaining permitted and expansion airspace, the expansion effort must meet all the criteria listed above. These criteria are evaluated by our field-based engineers, accountants, managers and others to identify potential obstacles to obtaining the permits. Once the unpermitted airspace is included, our policy provides that airspace may continue to be included in remaining permitted and expansion airspace even if certain of these criteria are no longer met as long as we continue to believe we will ultimately obtain the permit, based on the facts and circumstances of a specific landfill. In these circumstances, continued inclusion must be approved through a landfill-specific review process that includes approval by our Chief Financial Officer on a quarterly basis. Of the 15 landfill sites with expansions included as of December 31, 2021, two landfills required the Chief Financial Officer to approve the inclusion of the unpermitted airspace because the permit application process did not meet the one- or five-year requirements.

When we include the expansion airspace in our calculations of remaining permitted and expansion airspace, we also include the projected costs for development, as well as the projected asset retirement costs related to final capping, closure and post-closure of the expansion in the amortization basis of the landfill.

Once the remaining permitted and expansion airspace is determined in cubic yards, an airspace utilization factor (“AUF”) is established to calculate the remaining permitted and expansion capacity in tons. The AUF is established using the measured density obtained from previous annual surveys and is then adjusted to account for future settlement. The amount of settlement that is forecasted will take into account several site-specific factors including current and projected mix of waste type, initial and projected waste density, estimated number of years of life remaining, depth of underlying waste, anticipated access to moisture through precipitation or recirculation of landfill leachate and operating practices. In addition, the initial selection of the AUF is subject to a subsequent multi-level review by our engineering group and the AUF used is reviewed on a periodic basis and revised as necessary. Our historical experience generally indicates that the impact of settlement at a landfill is greater later in the life of the landfill when the waste placed at the landfill approaches its highest point under the permit requirements.

After determining the costs and remaining permitted and expansion capacity at each of our landfills, we determine the per ton rates that will be expensed as waste is received and deposited at the landfill by dividing the costs by the corresponding number of tons. We calculate per ton amortization rates for each landfill for assets associated with each final capping event, for assets related to closure and post-closure activities and for all other costs capitalized or to be capitalized in the future. These rates per ton are updated annually, or more often, as significant facts change.

It is possible that actual results, including the amount of costs incurred, the timing of final capping, closure and post-closure activities, our airspace utilization or the success of our expansion efforts could ultimately turn out to be significantly different from our estimates and assumptions. To the extent that such estimates, or related assumptions, prove to be significantly different than actual results, lower profitability may be experienced due to higher amortization rates or higher expenses; or higher profitability may result if the opposite occurs. Most significantly, if it is determined that expansion capacity should no longer be considered in calculating the recoverability of a landfill asset, we may be required to recognize an asset impairment or incur significantly higher amortization expense. If at any time management makes the decision to abandon the expansion effort, the capitalized costs related to the expansion effort are expensed immediately.

Environmental Remediation Liabilities

A significant portion of our operating costs and capital expenditures could be characterized as costs of environmental protection. The nature of our operations, particularly with respect to the construction, operation and maintenance of our landfills, subjects us to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by our operations, or for damage caused by conditions that existed before we acquired a site. In addition to remediation activity required by state or local authorities, such liabilities include potentially responsible party ("PRP") investigations. The costs associated with these liabilities can include settlements, certain legal and consultant fees, as well as incremental internal and external costs directly associated with site investigation and clean up.

Where it is probable that a liability has been incurred, we estimate costs required to remediate sites based on site-specific facts and circumstances. We routinely review and evaluate sites that require remediation, considering whether we were an owner, operator, transporter, or generator at the site, the amount and type of waste hauled to the site and the number of years we were associated with the site. Next, we review the same type of information with respect to other named and unnamed PRPs. Estimates of the costs for the likely remedy are then either developed using our internal resources or by third-party environmental engineers or other service providers. Internally developed estimates are based on:

- Management's judgment and experience in remediating our own and unrelated parties' sites;
- Information available from regulatory agencies as to costs of remediation;
- The number, financial resources and relative degree of responsibility of other PRPs who may be liable for remediation of a specific site; and
- The typical allocation of costs among PRPs, unless the actual allocation has been determined.

Estimating our degree of responsibility for remediation is inherently difficult. We recognize and accrue for an estimated remediation liability when we determine that such liability is both probable and reasonably estimable. Determining the method and ultimate cost of remediation requires that a number of assumptions be made. There can sometimes be a range of reasonable estimates of the costs associated with the likely site remediation alternatives identified in the environmental impact investigation. In these cases, we use the amount within the range that is our best estimate. If no amount within a range appears to be a better estimate than any other, we use the amount that is the low end of such range. If we used the high ends of such ranges, our aggregate potential liability would be approximately $135 million higher than the $213 million recorded in the Consolidated Balance Sheet as of December 31, 2021. Our ultimate responsibility may differ materially from current estimates. It is possible that technological, regulatory or enforcement developments, the results of environmental studies, the inability to identify other PRPs, the inability of other PRPs to contribute to the settlements of such liabilities, or other factors could require us to record additional liabilities. Our ongoing review of our remediation liabilities, in light of relevant internal and external facts and circumstances, could result in revisions to our accruals that could cause upward or downward adjustments to our balance sheet and income from operations. These adjustments could be material in any given period.

Where we believe that both the amount of a particular environmental remediation liability and the timing of the payments are fixed or reliably determinable, we inflate the cost in current dollars until the expected time of payment and discount the cost to present value using a risk-free discount rate, which is based on the rate for U.S. Treasury bonds with a term approximating the weighted average period until settlement of the underlying obligation. As of December 31, 2021 and 2020, we inflated the costs by 2.25%. We determine the risk-free discount rate and the inflation rate on an annual basis unless interim changes would materially impact our results of operations. For remedial liabilities that have been discounted, we include interest accretion, based on the effective interest method, in operating expenses in our Consolidated Statements of Operations. The following table summarizes the impacts of revisions in the risk-free discount rate applied to our environmental remediation liabilities and recovery assets for the year ended December 31 (in millions) and the risk-free discount rate applied as of December 31:

	2021	2020	2019
Increase (decrease) in operating expenses	$ (4)	$ 8	$ 9
Risk-free discount rate applied to environmental remediation liabilities and recovery assets	1.50 %	1.00 %	1.75 %

The portion of our recorded environmental remediation liabilities that were not subject to inflation or discounting, as the amounts and timing of payments are not fixed or reliably determinable, was $31 million and $34 million as of December 31, 2021 and 2020, respectively. Had we not inflated and discounted any portion of our environmental remediation liability, the amount recorded would have decreased by $6 million and $12 million as of December 31, 2021 and 2020, respectively.

Property and Equipment (exclusive of landfills, discussed above)

We record property and equipment at cost. Expenditures for major additions and improvements are capitalized and maintenance activities are expensed as incurred. We depreciate property and equipment over the estimated useful life of the asset using the straight-line method. We generally assume no salvage value for our depreciable property and equipment. When property and equipment are retired, sold or otherwise disposed of, the cost and accumulated depreciation are removed from our accounts and any resulting gain or loss is included in results of operations as an offset or increase to operating expense for the period.

The estimated useful lives for significant property and equipment categories are as follows (in years):

	Useful Lives
Vehicles — excluding rail haul cars	3 to 10
Vehicles — rail haul cars	10 to 30
Machinery and equipment — including containers	3 to 30
Buildings and improvements	5 to 40
Furniture, fixtures and office equipment	3 to 10

Leases

We lease property and equipment in the ordinary course of our business. Our operating lease activities primarily consist of leases for real estate, landfills and operating equipment. Our financing lease activities primarily consist of leases for operating equipment, railcars and landfill assets. Our leases have varying terms. Some may include renewal or purchase options, escalation clauses, restrictions, penalties or other obligations that we consider in determining minimum lease payments. The leases are classified as either operating leases or financing leases, as appropriate.

Operating Leases (excluding landfill leases discussed below) — The majority of our leases are operating leases. This classification generally can be attributed to either (i) relatively low fixed minimum lease payments as a result of real property lease obligations that vary based on the volume of waste we receive or process or (ii) minimum lease terms that are much shorter than the assets' economic useful lives. Management expects that in the normal course of business our operating leases will be renewed, replaced by other leases or replaced with fixed asset expenditures.

Financing Leases (excluding landfill leases discussed below) — Assets under financing leases are capitalized using interest rates determined at the commencement of each lease and are amortized over either the useful life of the asset or the lease term, as appropriate, on a straight-line basis. The present value of the related lease payments is recorded as a debt obligation.

Landfill Leases — From an operating perspective, landfills that we lease are similar to landfills we own because generally we will operate the landfill for the life of the operating permit. The most significant portion of our rental obligations for landfill leases is contingent upon operating factors such as disposal volume and often there are no contractual minimum rental obligations. Contingent rental obligations are expensed as incurred. For landfill financing leases that provide for minimum contractual rental obligations, we record the present value of the minimum obligation as part of the landfill asset, which is amortized on a units-of-consumption basis over the shorter of the lease term or the life of the landfill.

For operating and financing leases, including landfill leases, our rent expense for each of the last three years and future minimum lease payments are disclosed in Note 7.

Acquisitions

We generally recognize assets acquired and liabilities assumed in business combinations, including contingent assets and liabilities, based on fair value estimates as of the date of acquisition.

Contingent Consideration — In certain acquisitions, we agree to pay additional amounts to sellers contingent upon achievement by the acquired businesses of certain negotiated goals, such as targeted revenue levels, targeted disposal volumes or the issuance of permits for expanded landfill airspace. We have recognized liabilities for these contingent obligations based on their estimated fair value as of the date of acquisition with any differences between the acquisition-date fair value, subsequent remeasurements and the ultimate settlement of the obligations being recognized as an adjustment to income from operations.

Acquired Assets and Assumed Liabilities — Assets and liabilities arising from contingencies such as pre-acquisition environmental matters and litigation are recognized at their acquisition-date fair value when their respective fair values can be determined. If the fair values of such contingencies cannot be determined, they are recognized as of the acquisition date if the contingencies are probable and an amount can be reasonably estimated.

Acquisition-date fair value estimates are revised as necessary if, and when, additional information regarding these contingencies becomes available to further define and quantify assets acquired and liabilities assumed. Subsequent to finalization of purchase accounting, these revisions are accounted for as adjustments to income from operations. All acquisition-related transaction costs are expensed as incurred. See Note 17 for additional information related to our acquisitions, including our 2020 acquisition of Advanced Disposal.

Goodwill and Other Intangible Assets

Goodwill is the excess of our purchase cost over the fair value of the net assets of acquired businesses. We do not amortize goodwill, but as discussed in the *Long-Lived Asset Impairments* section below, we assess our goodwill for impairment at least annually.

Other intangible assets consist primarily of customer and supplier relationships, covenants not-to-compete, licenses, permits (other than landfill permits, as all landfill-related intangible assets are combined with landfill tangible assets and amortized using our landfill amortization policy), and other contracts. Other intangible assets are recorded at fair value on the acquisition date and are generally amortized using either a 150% declining balance approach or a straight-line basis as we determine appropriate. Customer and supplier relationships are typically amortized over terms of 10 to 15 years. Covenants not-to-compete are amortized over the term of the non-compete covenant, which is generally five years. Licenses, permits and other contracts are amortized over the definitive terms of the related agreements. If the underlying agreement does not contain definitive terms and the useful life is determined to be indefinite, the asset is not amortized.

Long-Lived Asset Impairments

We assess our long-lived assets for impairment as required under the applicable accounting standards. If necessary, impairments are recorded in (gain) loss from divestitures, asset impairments and unusual items, net in our Consolidated Statement of Operations.

Property and Equipment, Including Landfills and Definite-Lived Intangible Assets — We monitor the carrying value of our long-lived assets for potential impairment on an ongoing basis and test the recoverability of such assets generally using significant unobservable ("Level 3") inputs whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. These events or changes in circumstances, including management decisions pertaining to such assets, are referred to as impairment indicators. If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset or asset group to its undiscounted expected future cash flows. If cash flows cannot be separately and independently identified for a single asset, we will determine whether an impairment has occurred for the group of assets for which we can identify the projected cash flows. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset or asset group to its carrying value and the difference is recorded in the period that the impairment indicator occurs. Fair value is generally determined by considering (i) internally developed discounted projected cash flow analysis of the asset or asset group; (ii) actual third-party valuations and/or (iii) information available regarding the current market for similar assets. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized, which could impact our ability to accurately assess whether an asset has been impaired.

The assessment of impairment indicators and the recoverability of our capitalized costs associated with landfills and related expansion projects require significant judgment due to the unique nature of the waste industry, the highly regulated permitting process and the sensitive estimates involved. During the review of a landfill expansion application, a regulator may initially deny the expansion application although the expansion permit is ultimately granted. In addition, management may periodically divert waste from one landfill to another to conserve remaining permitted landfill airspace, or a landfill may be required to cease accepting waste, prior to receipt of the expansion permit. However, such events occur in the ordinary course of business in the waste industry and do not necessarily result in impairment of our landfill assets because, after consideration of all facts, such events may not affect our belief that we will ultimately obtain the expansion permit. As a result, our tests of recoverability, which generally make use of a probability-weighted cash flow estimation approach, may indicate that no impairment loss should be recorded.

Indefinite-Lived Intangible Assets, Including Goodwill — At least annually using a measurement date of October 1, and more frequently if warranted, we assess our indefinite-lived intangible assets, including the goodwill of our reporting units, for impairment.

We first perform a qualitative assessment to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying value. If the assessment indicates a possible impairment, we complete a quantitative review, comparing the estimated fair value of a reporting unit to its carrying amount, including goodwill. An impairment charge is recognized if the asset's estimated fair value is less than its carrying amount. Fair value is typically estimated using an income approach using Level 3 inputs. However, when appropriate, we may also use a market approach. The income approach is based on the long-term projected future cash flows of the reporting units. We discount the estimated cash flows to present value using a weighted average cost of capital that considers factors such as market assumptions, the timing of the cash flows and the risks inherent in those cash flows. We believe that this approach is appropriate because it provides a fair value estimate based upon the reporting units' expected long-term performance considering the economic and market conditions that generally affect our business. The market approach estimates fair value by measuring the aggregate market value of publicly-traded companies with similar characteristics to our business as a multiple of their reported earnings. We then apply that multiple to the reporting units' earnings to estimate their fair values. We believe that this approach may also be appropriate in certain circumstances because it provides a fair value estimate using valuation inputs from entities with operations and economic characteristics comparable to our reporting units.

Fair value is computed using several factors, including projected future operating results, economic projections, anticipated future cash flows, comparable marketplace data and the cost of capital. There are inherent uncertainties related to these factors and to our judgment in applying them in our analysis. However, we believe our methodology for estimating the fair value of our reporting units is reasonable.

Refer to Note 11 for information related to impairments recognized during the reported periods.

Insured and Self-Insured Claims

We have retained a significant portion of the risks related to our health and welfare, general liability, automobile liability and workers' compensation claims programs. For our self-insured portions, the exposure for unpaid claims and associated expenses, including incurred but not reported losses, is based on an actuarial valuation or internal estimates. The gross estimated liability associated with settling unpaid claims is included in accrued liabilities in our Consolidated Balance Sheets if expected to be settled within one year; otherwise, it is included in other long-term liabilities. Estimated insurance recoveries related to recorded liabilities are reflected as other current receivables or other long-term assets in our Consolidated Balance Sheets when we believe that the receipt of such amounts is probable.

We use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. We continue to maintain conventional insurance policies with third-party insurers. WMI pays an annual premium to the insurance captive on behalf of WMI and its insured subsidiaries, typically in the first quarter of the year, for estimated losses based on an external actuarial analysis. These premiums are held in a restricted funds account to be used solely for paying insurance claims, resulting in a transfer of risk from our Company to the insurance captive, and are allocated between current and long-term assets depending on estimated timing of the use of funds.

Restricted Trust and Escrow Accounts

Our restricted trust and escrow accounts consist principally of funds deposited for purposes of funding insurance claims and settling landfill final capping, closure, post-closure and environmental remediation obligations. These funds are generally allocated between cash, money market funds, equity securities and available-for-sale debt securities depending on the estimated timing and purpose of the use of funds. We use a wholly-owned insurance captive to insure the deductibles for certain claims programs and the premiums paid are directly deposited into a restricted escrow account to be used solely for paying insurance claims. At several of our landfills, we provide financial assurance by depositing cash into restricted trust or escrow accounts for purposes of settling final capping, closure, post-closure and environmental remediation obligations. Balances maintained in these restricted trust and escrow accounts will fluctuate based on (i) changes in statutory requirements; (ii) future deposits made to comply with contractual arrangements; (iii) the ongoing use of funds; (iv) acquisitions or divestitures and (v) changes in the fair value of the financial instruments held in the restricted trust or escrow accounts.

See Notes 16 and 18 for additional discussion related to restricted trust and escrow accounts for final capping, closure, post-closure or environmental remediation obligations.

Investments in Unconsolidated Entities

Investments in unconsolidated entities over which the Company has significant influence are accounted for under the equity method of accounting. Equity investments in which the Company does not have the ability to exert significant influence over the investees' operating and financing activities are measured using a quantitative approach as these investments do not have readily determinable fair values. The quantitative approach, or measurement alternative, is equal to its cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. The fair value of our redeemable preferred stock has been measured based on third-party investors' recent or pending transactions in these securities, which are considered the best evidence of fair value. The following table summarizes our investments in unconsolidated entities as of December 31 (in millions):

	2021	2020
Equity method investments	$ 335	$ 314
Investments without readily determinable fair values	48	63
Redeemable preferred stock	49	49
Investments in unconsolidated entities	$ 432	$ 426

We monitor and assess the carrying value of our investments throughout the year for potential impairment and write them down to their fair value when other-than-temporary declines exist. Fair value is generally based on (i) other third-party investors' recent transactions in the securities; (ii) other information available regarding the current market for similar assets; (iii) a market or income approach, as deemed appropriate and/or (iv) a quantitative approach, or measurement alternative, as noted above. Impairments of our investments are recorded in equity in net losses of unconsolidated entities or other, net in our Consolidated Statements of Operations in accordance with appropriate accounting guidance.

Refer to Note 11 for information related to impairments and other adjustments recognized during the reported periods.

Foreign Currency

We have operations in Canada, as well as certain support functions in India. Local currencies generally are considered the functional currencies of our operations and investments outside the U.S. The assets and liabilities of our foreign operations are translated to U.S. dollars using the exchange rate as of the balance sheet date. Revenues and expenses are translated to U.S. dollars using the average exchange rate during the period. The resulting translation difference is reflected as a component of other comprehensive income (loss). Foreign currency translation adjustments have been impacted by decreases in the U.S. dollar/Canadian dollar exchange rate from 1.2990 at December 31, 2019, to 1.2734 at

December 31, 2020 and to 1.2639 at December 31, 2021. Refer to Note 12 for information regarding the impacts of foreign currency on our comprehensive income and results of operations.

Revenue Recognition

Our Solid Waste operating revenues are primarily generated from fees charged for our collection, transfer, disposal, and recycling and resource recovery services, and from sales of commodities by our recycling and landfill gas-to-energy operations. Revenues from our collection operations are influenced by factors such as collection frequency, type of collection equipment furnished, type and volume or weight of the waste collected, distance to the disposal facility or material recovery facility and our disposal costs. Revenues from our landfill operations consist of tipping fees, which are generally based on the type and weight or volume of waste being disposed of at our disposal facilities. Fees charged at transfer stations are generally based on the weight or volume of waste deposited, taking into account our cost of loading, transporting and disposing of the solid waste at a disposal site. Recycling revenues generally consist of tipping fees and the sale of recycling commodities to third parties. The fees we charge for our services generally include our environmental, fuel surcharge and regulatory recovery fees, which are intended to pass through to customers direct and indirect costs incurred. We also provide additional services that are not managed through our Solid Waste business, including our Strategic Business Solutions (“WMSBS”) and Energy and Environmental Services (“EES”) businesses, recycling brokerage services, landfill gas-to-energy services and certain other expanded service offerings and solutions.

We generally recognize revenue as services are performed or products are delivered. For example, revenue typically is recognized as waste is collected, tons are received at our landfills or transfer stations, or recycling commodities are collected or delivered as product. We bill for certain services prior to performance. Such services include, among others, certain commercial and residential contracts and equipment rentals. These advance billings are included in deferred revenues and recognized as revenue in the period service is provided.

See Note 19 for additional information related to revenue by reportable segment and major lines of business.

Deferred Revenues

We record deferred revenues when cash payments are received or due in advance of our performance and classify them as current since they are earned within a year and there are no significant financing components. Substantially all our deferred revenues during the reported periods are realized as revenues within one to three months, when the related services are performed.

Contract Acquisition Costs

Our incremental direct costs of obtaining a contract, which consist primarily of sales incentives, are generally deferred and amortized to selling, general and administrative expense over the estimated life of the relevant customer relationship, ranging from five to 13 years. Contract acquisition costs that are paid to the customer are deferred and amortized as a reduction in revenue over the contract life. Our contract acquisition costs are classified as current or noncurrent based on the timing of when we expect to recognize amortization and are included in other assets in our Consolidated Balance Sheets.

As of December 31, 2021 and 2020, we had $175 million and $159 million of deferred contract costs, respectively, of which $126 million and $118 million, respectively, were related to deferred sales incentives. During each of the years ended December 31, 2021, 2020 and 2019, we amortized $23 million of sales incentives to selling, general and administrative expense.

Long-Term Contracts

Approximately 25% of our total revenue is derived from contracts with a remaining term greater than one year. The consideration for these contracts is primarily variable in nature. The variable elements of these contracts primarily include the number of homes and businesses served and annual rate changes based on consumer price index, fuel prices or other operating costs. Such contracts are generally within our collection, recycling and other lines of business and have a weighted average remaining contract life of approximately four years. We do not disclose the value of unsatisfied performance obligations for these contracts as our right to consideration corresponds directly to the value provided to the customer for services completed to date and all future variable consideration is allocated to wholly unsatisfied performance obligations.

Capitalized Interest

We capitalize interest on certain projects under development, including landfill expansion projects, certain assets under construction, including operating landfills and landfill gas-to-energy projects and internal-use software. During 2021, 2020 and 2019, total interest costs were $388 million, $473 million and $485 million, respectively, of which $13 million, $16 million and $21 million was capitalized in 2021, 2020 and 2019, respectively.

Income Taxes

The Company is primarily subject to income tax in the U.S. and Canada. Current tax obligations associated with our income tax expense are reflected in the accompanying Consolidated Balance Sheets as a component of accrued liabilities and our deferred tax obligations are reflected in deferred income taxes.

Deferred income taxes are based on the difference between the financial reporting and tax basis of assets and liabilities. Deferred income tax expense represents the change during the reporting period in the deferred tax assets and liabilities, net of the effect of acquisitions and dispositions. Deferred tax assets include tax loss and credit carry-forwards and are reduced by a valuation allowance if, based on available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. We establish reserves for uncertain tax positions when, despite our belief that our tax return positions are supportable, we believe that certain positions may be challenged and potentially disallowed. When facts and circumstances change, we adjust these reserves through our income tax expense.

Should interest and penalties be assessed by taxing authorities on any underpayment of income tax, such amounts would be accrued and classified as a component of our income tax expense in our Consolidated Statements of Operations.

See Note 8 for discussion of our income taxes.

Contingent Liabilities

We estimate the amount of potential exposure we may have with respect to claims, assessments and litigation in accordance with authoritative guidance on accounting for contingencies. We are party to pending or threatened legal proceedings covering a wide range of matters in various jurisdictions. It is difficult to predict the outcome of litigation, as it is subject to many uncertainties. Additionally, it is not always possible for management to make a meaningful estimate of the potential loss or range of loss associated with such contingencies. See Note 10 for discussion of our commitments and contingencies.

Supplemental Cash Flow Information

The following table shows supplemental cash flow information for the year ended December 31 (in millions):

	2021	2020	2019
Interest, net of capitalized interest	$ 387	$ 461	$ 397
Income taxes	370	422	292

During 2021, we had $30 million of non-cash financing activities from new financing leases. During 2020, we had $50 million of non-cash financing activities primarily related to new financing leases, a portion of which were attributed to our acquisition of Advanced Disposal. During 2019, we had $299 million of non-cash financing activities from federal low-income housing investments and new financing leases. Non-cash investing and financing activities are generally excluded from the Consolidated Statements of Cash Flows.

3. Landfill and Environmental Remediation Liabilities

Liabilities for landfill and environmental remediation costs as of December 31 are presented in the table below (in millions):

	2021			2020		
	Landfill	Environmental Remediation	Total	Landfill	Environmental Remediation	Total
Current (in accrued liabilities)	$ 137	$ 29	$ 166	$ 138	$ 26	$ 164
Long-term	2,189	184	2,373	2,018	204	2,222
	$ 2,326	$ 213	$ 2,539	$ 2,156	$ 230	$ 2,386

The changes to landfill and environmental remediation liabilities for the year ended December 31, 2021 are reflected in the table below (in millions):

	Landfill	Environmental Remediation
December 31, 2020	$ 2,156	$ 230
Obligations incurred and capitalized	117	—
Obligations settled	(101)	(22)
Interest accretion	108	3
Revisions in estimates and interest rate assumptions (a)	33	2
Acquisitions, divestitures and other adjustments (b)	13	—
December 31, 2021	$ 2,326	$ 213

(a) The amount reported for our landfill liabilities includes an increase of $15 million due to a business decision to accelerate the closure timing of a landfill in our West Tier segment, which resulted in the acceleration of the expected timing of capping, closure and post-closure activities. The remaining increase relates to revisions in estimated costs and timing of capping, closure and post-closure liabilities.

(b) The amount reported for our landfill liabilities includes an increase of $13 million related to changes in the fair values assigned to certain acquired Advanced Disposal sites.

Our recorded liabilities as of December 31, 2021 include the impacts of inflating certain of these costs based on our expectations of the timing of cash settlement and of discounting certain of these costs to present value. Anticipated payments of currently identified environmental remediation liabilities, as measured in current dollars, are $29 million in 2022, $47 million in 2023, $35 million in 2024, $31 million in 2025, $11 million in 2026 and $54 million thereafter.

4. Property and Equipment

Property and equipment as of December 31 consisted of the following (in millions):

	2021	2020
Land	$ 732	$ 740
Landfills	17,734	16,842
Vehicles (a)	5,893	5,800
Machinery and equipment (a)	3,571	3,217
Containers (a)	2,807	2,694
Buildings and improvements (a)	3,542	3,463
Furniture, fixtures and office equipment (a)	677	729
	34,956	33,485
Less: Accumulated depreciation of tangible property and equipment (a)	(10,147)	(9,645)
Less: Accumulated amortization of landfill airspace	(10,390)	(9,692)
Property and equipment, net	$ 14,419	$ 14,148

(a) In our Annual Report on Form 10-K for the year ended December 31, 2020, our accumulated depreciation and gross property and equipment balances as of December 31, 2020 were overstated. We subsequently corrected the balances in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 and have provided the corrected balances in all filings thereafter, as discussed in Note 1.

Depreciation and amortization expense, including amortization expense for assets recorded as financing leases, consisted of the following for the year ended December 31 (in millions):

	2021	2020	2019
Depreciation of tangible property and equipment	$ 1,125	$ 996	$ 893
Amortization of landfill airspace	731	568	575
Depreciation and amortization expense	$ 1,856	$ 1,564	$ 1,468

See Note 5 for information regarding amortization of our intangible assets.

5. Goodwill and Other Intangible Assets

Goodwill was $9,028 million and $8,994 million as of December 31, 2021 and 2020, respectively. The $34 million increase in goodwill during 2021 is primarily related to acquisitions, partially offset by divestitures. As discussed in Note 2, we perform our annual impairment test of goodwill balances for our reporting units using a measurement date of October 1. We will also perform interim tests if an impairment indicator exists. See Notes 11, 17 and 19 for additional information related to goodwill.

Our other intangible assets consisted of the following as of December 31 (in millions):

	Customer and Supplier Relationships	Covenants Not-to-Compete	Licenses, Permits and Other	Total
2021				
Intangible assets	$ 1,355	$ 43	$ 142	$ 1,540
Less: Accumulated amortization	(538)	(26)	(78)	(642)
	$ 817	$ 17	$ 64	$ 898
2020				
Intangible assets	$ 1,436	$ 68	$ 142	$ 1,646
Less: Accumulated amortization	(497)	(46)	(79)	(622)
	$ 939	$ 22	$ 63	$ 1,024

Amortization expense for other intangible assets was $143 million, $107 million and $106 million for 2021, 2020 and 2019, respectively. Amortization expense for other intangible assets for 2021 increased, as compared with 2020 and 2019, due to the amortization of acquired intangible assets related to our acquisition of Advanced Disposal. Additional information related to other intangible assets acquired through business combinations is included in Note 17. As of December 31, 2021, we had $19 million of licenses, permits and other intangible assets that are not subject to amortization because they do not have stated expirations or have routine, administrative renewal processes. As of December 31, 2021, we expect annual amortization expense related to other intangible assets to be $130 million in 2022, $115 million in 2023, $105 million in 2024, $97 million in 2025 and $77 million in 2026.

6. Debt

The following table summarizes the major components of debt as of each balance sheet date (in millions) and provides the maturities and interest rate ranges of each major category as of December 31:

	2021	2020
Commercial paper program (weighted average interest rate of 0.4% as of December 31, 2021 and December 31, 2020)	$ 1,778	$ 1,814
Senior notes, maturing through 2050, interest rates ranging from 0.75% to 7.75% (weighted average interest rate of 3.1% as of December 31, 2021 and 3.3% as of December 31, 2020)	8,126	8,465
Canadian senior notes, C$500 million maturing September 2026, interest rate of 2.6%	395	393
Tax-exempt bonds, maturing through 2048, fixed and variable interest rates ranging from 0.1% to 4.3% (weighted average interest rate of 1.4% as of December 31, 2021 and 1.7% as of December 31, 2020)	2,619	2,571
Financing leases and other, maturing through 2085, weighted average interest rate of 4.5% as of December 31, 2021 and 4.6% as of December 31, 2020) (a)	567	652
Debt issuance costs, discounts and other	(80)	(85)
	13,405	13,810
Current portion of long-term debt	708	551
	$ 12,697	$ 13,259

(a) Excluding our landfill financing leases, the maturities of our financing leases and other debt obligations extend through 2059.

Debt Classification

As of December 31, 2021, we had $3.1 billion of debt maturing within the next 12 months, including (i) $1.8 billion of short-term borrowings under our commercial paper program (net of related discount on issuance); (ii) $645 million of tax-exempt bonds with term interest rate periods that expire within the next 12 months, which is prior to their scheduled maturities; (iii) $500 million of 2.90% senior notes that mature in September 2022 and (iv) $170 million of other debt with scheduled maturities within the next 12 months, including $71 million of tax-exempt bonds. As of December 31, 2021, we have classified $2.4 billion of debt maturing in the next 12 months as long-term because we have the intent and ability to refinance these borrowings on a long-term basis as supported by the forecasted available capacity under our $3.5 billion long-term U.S. and Canadian revolving credit facility ("$3.5 billion revolving credit facility"), as discussed below. The remaining $708 million of debt maturing in the next 12 months is classified as current obligations.

As of December 31, 2021, we also had $54 million of variable-rate tax-exempt bonds with long-term scheduled maturities supported by letters of credit under our $3.5 billion revolving credit facility. The interest rates on our variable-rate tax-exempt bonds reset on a weekly basis through a remarketing process. All recent tax-exempt bond remarketings have successfully placed Company bonds with investors at market-driven rates and we currently expect future remarketings to be successful. However, if the remarketing agent is unable to remarket our bonds, the remarketing agent can put the bonds to us. In the event of a failed remarketing, we have the availability under our $3.5 billion revolving credit facility to fund these bonds until they are remarketed successfully. Accordingly, we have classified the $54 million of variable-rate tax-exempt bonds with maturities of more than one year as long-term in our Consolidated Balance Sheet as of December 31, 2021.

Access to and Utilization of Credit Facilities and Commercial Paper Program

$3.5 Billion Revolving Credit Facility — Our $3.5 billion revolving credit facility, maturing November 2024, provides us with credit capacity to be used for cash borrowings, to support letters of credit and to support our commercial paper program. The agreement provides the Company with two one-year extension options. Waste Management of Canada Corporation and WM Quebec Inc., each an indirect wholly-owned subsidiary of WMI, are borrowers under the $3.5 billion revolving credit facility, and the agreement permits borrowing in Canadian dollars up to the U.S. dollar equivalent of $375 million, with such borrowings to be repaid in Canadian dollars. WM Holdings, a wholly-owned subsidiary of WMI, guarantees all the obligations under the $3.5 billion revolving credit facility.

The rates we pay for outstanding U.S. or Canadian loans are generally based on LIBOR (or a LIBOR successor rate, if applicable, as provided for in the underlying credit agreement) or CDOR, respectively, plus a spread depending on the Company's debt rating assigned by Moody's Investors Service and Standard and Poor's. As of December 31, 2021, we had no outstanding borrowings under this facility. We had $167 million of letters of credit issued and $1.8 billion of outstanding borrowings (net of related discount on issuance) under our commercial paper program, both supported by this facility, leaving unused and available credit capacity of $1.5 billion as of December 31, 2021.

Commercial Paper Program — We have a commercial paper program that enables us to borrow funds for up to 397 days at competitive interest rates. The rates we pay for outstanding borrowings are based on the term of the notes. The commercial paper program is fully supported by our $3.5 billion revolving credit facility. As of December 31, 2021, we had $1.8 billion of outstanding borrowings (net of related discount on issuance) under our commercial paper program.

Other Letter of Credit Lines — As of December 31, 2021, we had utilized $764 million of other uncommitted letter of credit lines with terms maturing through April 2023.

Debt Borrowings and Repayments

Commercial Paper Program — During the year ended December 31, 2021 we made cash repayments of $6.9 billion, which were partially offset by $6.8 billion of cash borrowings (net of related discount on issuance).

Senior Notes — In May 2021, WMI issued $950 million of senior notes consisting of $475 million of 2.00% senior notes due June 1, 2029 and $475 million of 2.95% senior notes due June 1, 2041. The net proceeds from these debt issuances were $942 million, all of which were used, along with available cash on hand, to retire $1.3 billion of certain high-coupon senior notes. The cash paid included the principal amount of the debt retired, $211 million of related premiums and other third-party costs, and $15 million of accrued interest.

During the second quarter of 2021, we recognized a $220 million loss on early extinguishment of debt in our Consolidated Statement of Operations related to the tender offer, including $211 million of premiums and other third-party costs and $9 million primarily related to unamortized discounts and debt issuance costs. We also recognized $6 million of charges to interest expense for the write-off of cash flow hedges associated with the tendered notes, which was previously being amortized to interest expense through the notes' stated maturities. The following table summarizes the principal amount of senior notes redeemed within each series in order of acceptance priority level (in millions):

Description	Principal Outstanding Prior to Tender	Notes Tendered and Redeemed
6.125% WMI senior notes due 2039	$ 252	$ 6
7.75% WMI senior notes due 2032	153	9
7.375% WMI senior notes due 2029	81	—
4.15% WMI senior notes due 2049	1,000	316
4.10% WMI senior notes due 2045	750	334
3.90% WMI senior notes due 2035	450	153
7.00% WMI senior notes due 2028	330	73
7.10% WM Holdings senior notes due 2026	249	26
3.50% WMI senior notes due 2024	350	194
3.125% WMI senior notes due 2025	600	178
3.15% WMI senior notes due 2027	750	—
2.90% WMI senior notes due 2022	500	—
2.40% WMI senior notes due 2023	500	—
Total	$ 5,965	1,289

Tax-Exempt Bonds — We issued $175 million of new tax-exempt bonds in 2021. The proceeds from the issuance of these bonds were deposited directly into a restricted trust fund and may only be used for the specific purpose for which the money was raised, which is generally to finance expenditures for solid waste disposal facility and material recovery facility construction and development. In 2021, we also elected to refund and reissue $50 million of tax-exempt bonds and we repaid $127 million of our tax-exempt bonds with available cash at their scheduled maturities.

Financing Leases and Other — The decrease during 2021 is due to $115 million of cash repayments of debt at maturity, partially offset by an increase of $30 million primarily associated with non-cash financing leases.

Scheduled Debt Payments

Principal payments of our debt for the next five years and thereafter, based on scheduled maturities are as follows: $2,449 million in 2022, $651 million in 2023, $249 million in 2024, $1,278 million in 2025, $677 million in 2026 and $8,275 million thereafter. Our recorded debt and financing lease obligations include non-cash adjustments associated with debt issuance costs, discounts and fair value adjustments attributable to terminated interest rate derivatives, which have been excluded from these amounts because they will not result in cash payments. See Note 7 below for further discussion of our financing lease arrangements.

Secured Debt

Our debt balances are generally unsecured, except for financing leases and the notes payable associated with our investments in low-income housing properties. See Notes 8 and 18 for additional information related to these investments.

Debt Covenants

The terms of certain of our financing arrangements require that we comply with financial and other covenants. Our most restrictive financial covenant is the one contained in our $3.5 billion revolving credit facility, which sets forth a maximum total debt to consolidated earnings before interest, taxes, depreciation and amortization ratio (the "Leverage Ratio"). This covenant requires that the Leverage Ratio for the preceding four fiscal quarters will not be more than 3.75 to 1, provided that if an acquisition permitted under the $3.5 billion revolving credit facility involving aggregate consideration in excess of $200 million occurs during the fiscal quarter, the Company shall have the right to increase the Leverage Ratio to 4.25 to 1 during such fiscal quarter and for the following three fiscal quarters (the "Elevated Leverage Ratio Period"). There shall be no more than two Elevated Leverage Ratio Periods during the term of the $3.5 billion revolving credit facility, and the Leverage Ratio must return to 3.75 to 1 for at least one fiscal quarter between Elevated Leverage Ratio Periods. The Company did not elect to increase the Leverage Ratio for an Elevated Leverage Ratio Period following the acquisition of Advanced Disposal. The calculation of all components used in the Leverage Ratio covenant are as defined in the $3.5 billion revolving credit facility.

Our $3.5 billion revolving credit facility, senior notes and other financing arrangements also contain certain restrictions on the ability of the Company's subsidiaries to incur additional indebtedness as well as restrictions on the ability of the Company and its subsidiaries to, among other things, incur liens; engage in sale-leaseback transactions and engage in mergers and consolidations. We monitor our compliance with these restrictions, but do not believe that they significantly impact our ability to enter into investing or financing arrangements typical for our business. As of December 31, 2021 and 2020, we were in compliance with all covenants and restrictions under our financing arrangements that may have a material effect on our Consolidated Financial Statements.

7. Leases

Our operating lease activities primarily consist of leases for real estate, landfills and operating equipment. Our financing lease activities primarily consist of leases for operating equipment, railcars and landfill assets. Leases with an initial term of 12 months or less, which are not expected to be renewed beyond one year, are not recorded on the balance sheet and are recognized as lease expense on a straight-line basis over the lease term. Most leases include one or more options to renew, with renewal terms generally ranging from one to 10 years. The exercise of lease renewal options is generally at our sole discretion. We include the renewal term in the calculation of the right-of-use asset and related lease liability when such renewals are reasonably certain of being exercised. Certain leases also include options to purchase the leased property. The depreciable life of assets and leasehold improvements is limited by the expected lease term, unless there is a transfer of title or purchase option reasonably certain of exercise. Certain of our lease agreements include rental payments based on usage and other lease agreements include rental payments adjusted periodically for inflation; these payments are treated as variable lease payments. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

When the implicit interest rate is not readily available for our leases, we discount future cash flows of the remaining lease payments using the current interest rate that would be paid to borrow on collateralized debt over a similar term, or incremental borrowing rate, at the commencement date.

Supplemental balance sheet information for our leases as of December 31 is as follows (in millions):

Leases	Classification	2021	2020
Assets			
Long-term:			
Operating	Other assets	$ 451	$ 466
Financing	Property and equipment, net of accumulated depreciation and amortization	364	386
Total lease assets		$ 815	$ 852
Liabilities			
Current:			
Operating	Accrued liabilities	$ 64	$ 63
Financing	Current portion of long-term debt	47	50
Long-term:			
Operating	Other liabilities	459	453
Financing	Long-term debt, less current portion	291	314
Total lease liabilities		$ 861	$ 880

Operating lease expense was $155 million, $140 million and $132 million during 2021, 2020 and 2019, respectively, and is included in operating and selling, general and administrative expenses in our Consolidated Statements of Operations. Financing lease expense was $58 million, $51 million and $48 million during 2021, 2020 and 2019, respectively, and is included in depreciation and amortization expense and interest expense, net in our Consolidated Statements of Operations.

Minimum contractual obligations for our leases (undiscounted) as of December 31, 2021 are as follows (in millions):

	Operating	Financing
2022	$ 75	$ 55
2023	68	50
2024	61	44
2025	51	40
2026	42	36
Thereafter	410	209
Total undiscounted lease payments	$ 707	$ 434
Less: interest	(184)	(96)
Discounted lease liabilities	$ 523	$ 338

Cash paid during 2021 for our operating and financing leases was $70 million and $64 million, respectively. During 2021, right-of-use assets obtained in exchange for lease obligations for our operating and financing leases were $69 million and $36 million, respectively. Cash paid during 2020 for our operating and financing leases was $91 million and $51 million, respectively. During 2020, right-of-use assets obtained in exchange for lease obligations for our operating and financing leases were $128 million and $35 million, respectively.

As of December 31, 2021, the weighted average remaining lease terms of our operating and financing leases were approximately 20 years and 15 years, respectively. The weighted average discount rates used to determine the lease liabilities as of December 31, 2021 for our operating and financing leases were approximately 2.8% and 3.5%, respectively.

8. Income Taxes

Income Tax Expense

Our income tax expense consisted of the following for the year ended December 31 (in millions):

	2021	2020	2019
Current:			
Federal	$ 436	$ 114	$ 204
State	132	91	94
Foreign	41	27	36
	609	232	334
Deferred:			
Federal	(55)	149	94
State	(22)	10	8
Foreign	—	6	(2)
	(77)	165	100
Income tax expense	$ 532	$ 397	$ 434

The U.S. federal statutory income tax rate is reconciled to the effective income tax rate for the year ended December 31 as follows:

	2021	2020	2019
Income tax expense at U.S. federal statutory rate	21.00 %	21.00 %	21.00 %
State and local income taxes, net of federal income tax benefit	4.14	4.46	4.39
Federal tax credits	(2.69)	(3.78)	(4.38)
Taxing authority audit settlements and other tax adjustments	0.53	(0.17)	(0.74)
Tax impact of equity-based compensation transactions	(0.60)	(1.12)	(0.91)
Tax impact of impairments	(0.29)	(0.35)	0.72
Tax rate differential on foreign income	0.37	0.33	0.40
Other	0.16	0.57	0.13
Effective income tax rate	22.62 %	20.94 %	20.61 %

The comparability of our income tax expense for the reported periods has been primarily affected by (i) variations in our income before income taxes; (ii) federal tax credits; (iii) excess tax benefits associated with equity-based compensation transactions; (iv) the realization of state net operating losses and credits; (v) tax audit settlements; (vi) adjustments to our accruals and deferred taxes; (vii) the tax implications of divestitures; (viii) non-deductible transaction costs and (ix) the tax implications of impairments.

For financial reporting purposes, income before income taxes by source for the year ended December 31 was as follows (in millions):

	2021	2020	2019
Domestic	$ 2,211	$ 1,780	$ 2,025
Foreign	138	113	80
Income before income taxes	$ 2,349	$ 1,893	$ 2,105

Investments Qualifying for Federal Tax Credits — We have significant financial interests in entities established to invest in and manage low-income housing properties. We support the operations of these entities in exchange for a pro-rata share of the tax credits they generate. The low-income housing investments qualify for federal tax credits that we expect to realize through 2030 under Section 42 or Section 45D of the Internal Revenue Code. We also held a residual financial interest in an entity that owned a refined coal facility that qualified for federal tax credits under Section 45 of the Internal Revenue Code through 2019. The entity sold the majority of its assets in the first quarter of 2020, which resulted in a $7 million non-cash impairment of our investment at that time. We account for our investments in these entities using the equity method of accounting, recognizing our share of each entity's results of operations and other reductions in the value of our investments in equity in net losses of unconsolidated entities within our Consolidated Statements of Operations.

During the years ended December 31, 2021, 2020 and 2019, we recognized net losses of $51 million, $73 million (including the $7 million impairment of the refined coal facility noted above) and $46 million, respectively, and a reduction in our income tax expense of $74 million, $87 million and $96 million, respectively, primarily due to tax credits realized from these investments as well as the tax benefits from the pre-tax losses realized. See Note 18 for additional information related to these unconsolidated variable interest entities.

Other Federal Tax Credits — During 2021, 2020 and 2019, we recognized federal tax credits in addition to the tax credits realized from our investments in low-income housing properties and the refined coal facility, resulting in a reduction in our income tax expense of $5 million, $7 million and $11 million, respectively.

Equity-Based Compensation — During 2021, 2020 and 2019, we recognized excess tax benefits related to the vesting or exercise of equity-based compensation awards resulting in a reduction in our income tax expense of $18 million, $27 million and $25 million, respectively.

State Net Operating Losses and Credits — During 2021, 2020 and 2019, we recognized state net operating losses and credits resulting in a reduction in our income tax expense of $15 million, $12 million and $14 million, respectively.

Tax Audit Settlements — We file income tax returns in the U.S. and Canada, as well as other state and local jurisdictions. We are currently under audit by various taxing authorities, as discussed below, and our audits are in various stages of completion. During the reported periods, we settled various tax audits which resulted in a reduction in our income tax expense of $13 million, $10 million and $2 million for the years ended December 31, 2021, 2020 and 2019, respectively.

We participate in the IRS's Compliance Assurance Process, which means we work with the IRS throughout the year towards resolving any material issues prior to the filing of our annual tax return. Any unresolved issues as of the tax return filing date are subject to routine examination procedures. We are currently in the examination phase of IRS audits for the 2017, 2020 and 2021 tax years and expect these audits to be completed within the next 15 months. We are also currently undergoing audits by various state and local jurisdictions for tax years that date back to 2014.

Adjustments to Accruals and Related Deferred Taxes — Adjustments to our accruals and related deferred taxes primarily due to the filing of our income tax returns, analysis of our deferred tax balances and uncertain tax positions, and changes in state and foreign laws resulted in an increase in our income tax expense of $17 million for the year ended December 31, 2021, and a reduction in our income tax expense of $3 million and $22 million for the years ended December 31, 2020 and 2019, respectively.

Tax Implications of Divestitures – During 2021, we recognized a pre-tax gain from the recognition of cumulative translation adjustments on the divestiture of certain non-strategic Canadian operations. This gain was not taxable, which resulted in a reduction in our income tax expense of $8 million.

Non-Deductible Transaction Costs — During 2020 and 2019, we recognized the detrimental tax impact of $27 million and $10 million, respectively, of non-deductible transaction costs related to our acquisition of Advanced Disposal. The tax rules require the capitalization of certain facilitative costs on the acquisition of stock of a company resulting in the applicable costs not being deductible for tax purposes.

Tax Implications of Impairments — Portions of the impairment charges recognized during 2019 were not deductible for tax purposes resulting in an increase in income tax expense of $15 million. The non-cash impairment charges recognized during 2021 and 2020 were deductible for tax purposes. See Note 11 for more information related to our impairment charges.

Unremitted Earnings in Foreign Subsidiaries — In the third quarter of 2020, we modified our permanent reinvestment assertion and began providing additional income taxes for the undistributed current year earnings of our foreign subsidiaries. No additional income taxes have been provided for any remaining undistributed foreign earnings prior to 2020 not subject to the one-time, mandatory transition tax, or any additional outside basis difference, as these amounts continue to be indefinitely reinvested in foreign operations.

Deferred Tax Assets (Liabilities)

The components of net deferred tax liabilities as of December 31 are as follows (in millions):

	2021	2020(a)
Deferred tax assets:		
Net operating loss, capital loss and tax credit carry-forwards	$ 189	$ 186
Landfill and environmental remediation liabilities	238	202
Operating lease liabilities	135	141
Miscellaneous and other reserves, net	113	103
Subtotal	675	632
Valuation allowance	(158)	(150)
Deferred tax liabilities:		
Property and equipment	(1,064)	(1,137)
Goodwill and other intangibles	(1,027)	(1,027)
Operating lease right-of-use assets	(120)	(124)
Net deferred tax liabilities	$ (1,694)	$ (1,806)

(a) We have revised the classification between components of the net deferred tax liability as of December 31, 2020 in order to present the balances on a comparative basis with the classification as of December 31, 2021. These classification revisions were made as we finalized the integration of the Advanced Disposal tax processes.

As of December 31, 2021, we had $11 million of federal net operating loss carry-forwards with expiration dates through 2026 and $2.7 billion of state net operating loss carry-forwards with expiration dates through 2041. We also had $47 million of federal capital loss carry-forwards with expiration dates through 2025, $38 million of foreign tax credit carry-forwards with expiration dates through 2031 and $12 million of state tax credit carry-forwards with expiration dates through 2037.

We have established valuation allowances for uncertainties in realizing the benefit of certain tax loss and credit carry-forwards and other deferred tax assets. While we expect to realize the deferred tax assets, net of the valuation allowances, changes in estimates of future taxable income or in tax laws may alter this expectation.

Liabilities for Uncertain Tax Positions

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits, including accrued interest, is as follows (in millions):

	2021	2020	2019
Balance as of January 1	$ 37	$ 40	$ 36
Additions based on tax positions related to the current year	22	5	5
Additions based on tax positions of prior years	18	—	—
Accrued interest	3	2	2
Settlements	(12)	—	—
Lapse of statute of limitations	(4)	(10)	(3)
Balance as of December 31	$ 64	$ 37	$ 40

These liabilities are included as a component of other long-term liabilities in our Consolidated Balance Sheets because the Company does not anticipate that settlement of the liabilities will require payment of cash within the next 12 months. As of December 31, 2021, we had $53 million of net unrecognized tax benefits that, if recognized in future periods, would impact our effective income tax rate.

We recognize interest expense related to unrecognized tax benefits in our income tax expense, which was not material for the reported periods. We did not have any material accrued liabilities or expense for penalties related to unrecognized tax benefits for the reported periods.

9. Employee Benefit Plans

Defined Contribution Plans — Waste Management sponsors a 401(k) retirement savings plan that covers employees, except those working subject to collective bargaining agreements that do not provide for coverage under the plan. U.S. employees who are not subject to such collective bargaining agreements are generally eligible to participate in the plan following a 90-day waiting period after hire and may contribute as much as 50% of their eligible annual compensation and 80% of their annual incentive plan bonus, subject to annual contribution limitations established by the IRS. Under the retirement savings plan, for non-union employees, we match 100% of employee contributions on the first 3% of their eligible annual compensation and 50% of employee contributions on the next 3% of their eligible annual compensation, resulting in a maximum match of 4.5% of eligible annual compensation. Non-union employees are automatically enrolled in the plan at a 3% contribution rate upon eligibility. Both employee and Company contributions are in cash and vest immediately. Certain U.S. employees who are subject to collective bargaining agreements may participate in the 401(k) retirement savings plan under terms specified in their collective bargaining agreement. Certain employees outside the U.S., including those in Canada, participate in defined contribution plans maintained by the Company in compliance with laws of the appropriate jurisdiction. Charges to operating and selling, general and administrative expenses for our defined contribution plans totaled $104 million, $92 million and $88 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Defined Benefit Plans (other than multiemployer defined benefit pension plans discussed below) — WM Holdings sponsors a defined benefit plan for certain employees who are subject to collective bargaining agreements that provide for participation in this plan. Further, certain of our Canadian subsidiaries sponsor defined benefit plans that are frozen to new participants. As of December 31, 2021, the combined benefit obligation of these pension plans was $150 million supported by $150 million of combined plan assets. As of December 31, 2020, the combined benefit obligation of these pension plans was $154 million supported by $150 million of combined plan assets, resulting in an aggregate unfunded benefit obligation for these plans of $4 million.

In addition, WM Holdings and certain of its subsidiaries provided post-retirement health care and other benefits to eligible retirees. In conjunction with our acquisition of WM Holdings in July 1998, we limited participation in these plans to participating retirees as of December 31, 1998. The unfunded benefit obligation for these plans was $12 million and $14 million as of December 31, 2021 and 2020, respectively.

Our accrued benefit liabilities for our defined benefit pension and other post-retirement plans are included as components of accrued liabilities and long-term other liabilities in our Consolidated Balance Sheets.

Multiemployer Defined Benefit Pension Plans — We are a participating employer in a number of trustee-managed multiemployer defined benefit pension plans ("Multiemployer Pension Plans") for employees who are covered by collective bargaining agreements. The risks of participating in these Multiemployer Pension Plans are different from single-employer plans in that (i) assets contributed to the Multiemployer Pension Plan by one employer may be used to provide benefits to employees or former employees of other participating employers; (ii) if a participating employer stops contributing to the plan, the unfunded obligations of the plan may be required to be assumed by the remaining participating employers and (iii) if we choose to stop participating in any of our Multiemployer Pension Plans, we may be required to pay those plans a withdrawal amount based on the underfunded status of the plan. The following table outlines our participation in Multiemployer Pension Plans considered to be individually significant (dollars in millions):

Pension Fund	EIN/Pension Plan Number	Pension Protection Act Reported Status(a) 2021	Pension Protection Act Reported Status(a) 2020	FIP/RP Status(b)(c)	Company Contributions(d) 2021	Company Contributions(d) 2020	Company Contributions(d) 2019	Expiration Date of Collective Bargaining Agreement(s)
Automotive Industries Pension Plan	EIN: 94-1133245; Plan Number: 001	Critical and Declining	Critical and Declining	Implemented	$ 1	$ 1	$ 1	9/30/2021
Midwest Operating Engineers Pension Trust Fund	EIN: 36-6140097; Plan Number: 001	Not Endangered or Critical as of 3/31/2021	Not Endangered or Critical as of 3/31/2020	Implemented	2	2	2	Various dates through 4/30/2026
Suburban Teamsters of Northern Illinois Pension Plan	EIN: 36-6155778; Plan Number: 001	Not Endangered or Critical	Not Endangered or Critical	Implemented	4	3	3	Various dates through 11/28/2025
Western Conference of Teamsters Pension Plan	EIN: 91-6145047; Plan Number: 001	Not Endangered or Critical	Not Endangered or Critical	Not Applicable	35	33	32	Various dates through 5/31/2026
					$ 42	$ 39	$ 38	
Contributions to other Multiemployer Pension Plans					19	15	14	
Total contributions to Multiemployer Pension Plans (e)					$ 61	$ 54	$ 52	

(a) Unless otherwise noted in the table above, the most recent Pension Protection Act zone status available in 2021 and 2020 is for the plan's year-end as of December 31, 2020 and 2019, respectively. The zone status is based on information that we received from the plan and is certified by the plan's actuary. As defined in the Pension Protection Act of 2006, among other factors, plans reported as critical are generally less than 65% funded and plans reported as endangered are generally less than 80% funded. Under the Multiemployer Pension Reform Act of 2014, a plan is generally in critical and declining status if it (i) is certified to be in critical status pursuant to the Pension Protection Act of 2006 and (ii) is projected to be insolvent within the next 15 years or, in certain circumstances, 20 years.

(b) The “FIP/RP Status” column indicates plans for which a Funding Improvement Plan (“FIP”) or a Rehabilitation Plan (“RP”) has been implemented.

(c) A Multiemployer Pension Plan that has been certified as endangered, seriously endangered or critical may begin to levy a statutory surcharge on contribution rates. Once authorized, the surcharge is at the rate of 5% for the first 12 months and 10% for any periods thereafter. Contributing employers, however, may eliminate the surcharge by entering into a collective bargaining agreement that meets the requirements of the applicable FIP or RP.

(d) Of the Multiemployer Pension Plans considered to be individually significant, the Company was listed in the Form 5500 of the Suburban Teamsters of Northern Illinois Pension Plan as providing more than 5% of the total contributions for plan years ending December 31, 2020 and 2019.

(e) Total contributions to Multiemployer Pension Plans excludes contributions related to withdrawal liabilities discussed below.

Our portion of the projected benefit obligation, plan assets and unfunded liability for the Multiemployer Pension Plans is not material to our financial position. However, the failure of participating employers to remain solvent could affect our portion of the plans’ unfunded liability. Specific benefit levels provided by union pension plans are not negotiated with or known by the employer contributors.

In connection with our ongoing renegotiations of various collective bargaining agreements, we may discuss and negotiate for the complete or partial withdrawal from one or more of these pension plans. Further, business events, such as the discontinuation or nonrenewal of a customer contract, the decertification of a union, or relocation, reduction or discontinuance of certain operations, which result in the decline of Company contributions to a Multiemployer Pension Plan could trigger a partial or complete withdrawal. In the event of a withdrawal, we may incur expenses associated with our obligations for unfunded vested benefits at the time of the withdrawal. Refer to Note 10 for additional information related to our obligations to Multiemployer Pension Plans for which we have withdrawn or partially withdrawn.

Multiemployer Plan Benefits Other Than Pensions — During the years ended December 31, 2021, 2020 and 2019, the Company made contributions of $51 million, $48 million and $45 million, respectively, to multiemployer health and welfare plans that also provide other post-retirement employee benefits. Funding of benefit payments for plan participants are made at negotiated rates in the respective collective bargaining agreements as costs are incurred.

10. Commitments and Contingencies

Financial Instruments — We have obtained letters of credit, surety bonds and insurance policies and have established trust funds and issued financial guarantees to support tax-exempt bonds, contracts, performance of landfill final capping, closure and post-closure requirements, environmental remediation and other obligations. Letters of credit generally are supported by our $3.5 billion revolving credit facility and other letter of credit lines established for that purpose. These facilities are discussed further in Note 6. Surety bonds and insurance policies are supported by (i) a diverse group of third-party surety and insurance companies; (ii) an entity in which we have a noncontrolling financial interest or (iii) a wholly-owned insurance captive, the sole business of which is to issue surety bonds and/or insurance policies on our behalf.

Management does not expect that any claims against or draws on these instruments would have a material adverse effect on our financial condition, results of operations or cash flows. We have not experienced any unmanageable difficulty in obtaining the required financial assurance instruments for our current operations. In an ongoing effort to mitigate risks of future cost increases and reductions in available capacity, we continue to evaluate various options to access cost-effective sources of financial assurance.

Insurance — We carry insurance coverage for protection of our assets and operations from certain risks including general liability, automobile liability, workers' compensation, real and personal property, directors' and officers' liability, pollution legal liability, cyber incident liability and other coverages we believe are customary to the industry. Our exposure to loss for insurance claims is generally limited to the per-incident deductible under the related insurance policy. Our exposure could increase if our insurers are unable to meet their commitments on a timely basis.

We have retained a significant portion of the risks related to our health and welfare, general liability, automobile liability and workers' compensation claims programs. "General liability" refers to the self-insured portion of specific third-party claims made against us that may be covered under our commercial general liability insurance policy. For our self-insured portions, the exposure for unpaid claims and associated expenses, including incurred but not reported losses, is based on an actuarial valuation or internal estimates. The accruals for these liabilities could be revised if future occurrences or loss development significantly differ from such valuations and estimates. We use a wholly-owned insurance captive to insure the deductibles for our general liability, automobile liability and workers' compensation claims programs. As of December 31, 2021, both our commercial general liability insurance policy and our workers' compensation insurance program carried self-insurance exposures of up to $5 million per incident. As of December 31, 2021, our automobile liability insurance program included a per-incident deductible of up to $10 million. Our receivable balance associated with insurance claims was $155 million and $139 million as of December 31, 2021 and 2020 respectively. The changes to our insurance reserves for the year ended December 31 are summarized below (in millions):

	2021(a)	2020
Balance as of January 1	$ 664	$ 575
Self-insurance expense	240	172
Cash paid and other	(170)	(151)
Other (b)	—	68
Balance as of December 31	$ 734	$ 664
Current portion as of December 31	$ 191	$ 175
Long-term portion as of December 31	$ 543	$ 489

(a) Based on current estimates, we anticipate that most of our insurance reserves will be settled in cash over the next six years.

(b) Insurance reserves of $68 million as of December 31, 2020 related to the acquisition of Advanced Disposal.

We do not expect the impact of any known casualty, property, environmental or other contingency to have a material impact on our financial condition, results of operations or cash flows.

Unconditional Purchase Obligations — Our unconditional purchase obligations are generally established in the ordinary course of our business and are structured in a manner that provides us with access to important resources at competitive, market-driven rates and consist primarily of the following:

- *Disposal* — We have several agreements expiring at various dates through 2052 that require us to dispose of a minimum number of tons at third-party disposal facilities. Under these put-or-pay agreements, we are required to pay for the agreed upon minimum volumes regardless of the actual number of tons placed at the facilities. We generally fulfill our minimum contractual obligations by disposing of volumes collected in the ordinary course of business at these disposal facilities.

- *Other* — We are party to certain multi-year service agreements expiring at various dates through 2030 requiring minimum annual payments.

As of December 31, 2021, our estimated minimum obligations associated with unconditional purchase obligations, which are not recognized in our Consolidated Balance Sheets, were $197 million in 2022, $182 million in 2023,

$130 million in 2024, $105 million in 2025, $95 million in 2026 and $368 million thereafter. We may also establish unconditional purchase obligations in conjunction with acquisitions or divestitures. Our actual future minimum obligations under these outstanding purchase agreements are generally quantity driven and, as a result, our associated financial obligations are not fixed as of December 31, 2021. For contracts that require us to purchase minimum quantities of goods or services, we have estimated our future minimum obligations based on the current market values of the underlying products or services or contractually stated amounts. We currently expect the products and services provided by these agreements to continue to meet the needs of our ongoing operations. Therefore, we do not expect these established arrangements to materially impact our future financial position, results of operations or cash flows.

Other Commitments

- *Royalties* — We have various arrangements that require us to make royalty payments to third parties including prior land owners, lessors or host communities where our operations are located. Our obligations generally are based on per ton rates for waste actually received at our transfer stations or landfills. Royalty agreements that are non-cancelable and require fixed or minimum payments are included in our financing leases and other debt obligations in our Consolidated Balance Sheets as disclosed in Note 6.

Guarantees — We have entered into the following guarantee agreements associated with our operations:

- As of December 31, 2021, WM Holdings has fully and unconditionally guaranteed all of WMI's senior indebtedness, including its senior notes, $3.5 billion revolving credit facility and certain letter of credit lines, which mature through 2050. WMI has fully and unconditionally guaranteed the senior indebtedness of WM Holdings, which matures in 2026. Performance under these guarantee agreements would be required if either party defaulted on their respective obligations. No additional liabilities have been recorded for these intercompany guarantees because all of the underlying obligations are reflected in our Consolidated Balance Sheets.
- WMI and WM Holdings have guaranteed subsidiary debt obligations, including tax-exempt bonds, financing leases and other indebtedness. If a subsidiary fails to meet its obligations associated with its debt agreements as they come due, WMI or WM Holdings will be required to perform under the related guarantee agreement. No additional liabilities have been recorded for these intercompany guarantees because all of the underlying obligations are reflected in our Consolidated Balance Sheets. See Note 6 for information related to the balances and maturities of these debt obligations.
- Certain of our subsidiaries have guaranteed the market or contractually-determined value of certain homeowners' properties that are adjacent to or near certain of our landfills. These guarantee agreements extend over the life of the respective landfill. Under these agreements, we would be responsible for the difference, if any, between the sale value and the guaranteed market or contractually-determined value of the homeowners' properties. As of December 31, 2021, we have agreements guaranteeing certain market value losses for certain properties adjacent to or near 18 of our landfills. Any liability associated with the triggering of the home value has been reflected in our Consolidated Balance Sheets. We do not believe that the remaining contingent obligations will have a material adverse effect on the Company's financial position, results of operations or cash flows.
- We have indemnified the purchasers of businesses or divested assets for the occurrence of specified events under certain of our divestiture agreements. Other than certain identified items that are currently recorded as obligations, we do not believe that it is possible to determine the contingent obligations associated with these indemnities. Additionally, under certain of our acquisition agreements, we have provided for additional consideration to be paid to the sellers if established financial targets or other market conditions are achieved post-closing and we have recognized liabilities for these contingent obligations based on an estimate of the fair value of these contingencies at the time of acquisition. We do not currently believe that contingent obligations to provide indemnification or pay additional post-closing consideration in connection with our divestitures or acquisitions will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

- WMI and WM Holdings guarantee the service, lease, financial and general operating obligations of certain of their subsidiaries. If such a subsidiary fails to meet its contractual obligations as they come due, the guarantor has an unconditional obligation to perform on its behalf. No additional liability has been recorded for service, financial or general operating guarantees because the subsidiaries' obligations are properly accounted for as costs of operations as services are provided or general operating obligations as incurred. No additional liability has been recorded for the lease guarantees because the subsidiaries' obligations are properly accounted for as operating or financing leases, as appropriate.

Environmental Matters — A significant portion of our operating costs and capital expenditures could be characterized as costs of environmental protection. The nature of our operations, particularly with respect to the construction, operation and maintenance of our landfills, subjects us to an array of laws and regulations relating to the protection of the environment. Under current laws and regulations, we may have liabilities for environmental damage caused by our operations, or for damage caused by conditions that existed before we acquired a site. In addition to remediation activity required by state or local authorities, such liabilities include PRP investigations. The costs associated with these liabilities can include settlements, certain legal and consultant fees, as well as incremental internal and external costs directly associated with site investigation and clean-up.

As of December 31, 2021, we have been notified by the government that we are a PRP in connection with 73 locations listed on the Environmental Protection Agency's ("EPA's") Superfund National Priorities List ("NPL"). Of the 73 sites at which claims have been made against us, 14 are sites we own. Each of the NPL sites we own was initially developed by others as a landfill disposal facility. At each of these facilities, we are working in conjunction with the government to evaluate or remediate identified site problems, and we have either agreed with other legally liable parties on an arrangement for sharing the costs of remediation or are working toward a cost-sharing agreement. We generally expect to receive any amounts due from other participating parties at or near the time that we make the remedial expenditures. The other 59 NPL sites, which we do not own, are at various procedural stages under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, known as CERCLA or Superfund.

The majority of proceedings involving NPL sites that we do not own are based on allegations that certain of our subsidiaries (or their predecessors) transported hazardous substances to the sites, often prior to our acquisition of these subsidiaries. CERCLA generally provides for liability for those parties owning, operating, transporting to or disposing at the sites. Proceedings arising under Superfund typically involve numerous waste generators and other waste transportation and disposal companies and seek to allocate or recover costs associated with site investigation and remediation, which costs could be substantial and could have a material adverse effect on our consolidated financial statements. At some of the sites at which we have been identified as a PRP, our liability is well defined as a consequence of a governmental decision and an agreement among liable parties as to the share each will pay for implementing that remedy. At other sites, where no remedy has been selected or the liable parties have been unable to agree on an appropriate allocation, our future costs are uncertain.

On October 11, 2017, the EPA issued its Record of Decision ("ROD") with respect to the previously proposed remediation plan for the San Jacinto waste pits in Harris County, Texas. McGinnes Industrial Maintenance Corporation ("MIMC"), an indirect wholly-owned subsidiary of WMI, operated some of the waste pits from 1965 to 1966 and has been named as a site PRP. In 1998, WMI acquired the stock of the parent entity of MIMC. MIMC has been working with the EPA and other named PRPs as the process of addressing the site proceeds. On April 9, 2018, MIMC and International Paper Company entered into an Administrative Order on Consent agreement with the EPA to develop a remedial design for the EPA's proposed remedy for the site. Allocation of responsibility among the PRPs for the proposed remedy has not been established. As of December 31, 2021 and 2020, the recorded liability for MIMC's estimated potential share of the EPA's proposed remedy and related costs was \$53 million and \$55 million, respectively. MIMC's ultimate liability could be materially different from current estimates.

Item 103 of the SEC's Regulation S-K requires disclosure of certain environmental matters when a governmental authority is a party to the proceedings, or such proceedings are known to be contemplated, unless we reasonably believe that the matter will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, below a stated threshold. In accordance with this SEC regulation, the Company uses a threshold of $1 million for purposes of determining whether disclosure of any such environmental proceedings is required. As of the date of this filing, we are not aware of any matters that are required to be disclosed pursuant to this standard.

From time to time, we are also named as defendants in personal injury and property damage lawsuits, including purported class actions, on the basis of having owned, operated or transported waste to a disposal facility that is alleged to have contaminated the environment or, in certain cases, on the basis of having conducted environmental remediation activities at sites. Some of the lawsuits may seek to have us pay the costs of monitoring of allegedly affected sites and health care examinations of allegedly affected persons for a substantial period of time even where no actual damage is proven. While we believe we have meritorious defenses to these lawsuits, the ultimate resolution is often substantially uncertain due to the difficulty of determining the cause, extent and impact of alleged contamination (which may have occurred over a long period of time), the potential for successive groups of complainants to emerge, the diversity of the individual plaintiffs' circumstances, and the potential contribution or indemnification obligations of co-defendants or other third parties, among other factors. Additionally, we often enter into agreements with landowners imposing obligations on us to meet certain regulatory or contractual conditions upon site closure or upon termination of the agreements. Compliance with these agreements inherently involves subjective determinations and may result in disputes, including litigation.

Litigation — As a large company with operations across the U.S. and Canada, we are subject to various proceedings, lawsuits, disputes and claims arising in the ordinary course of our business. Many of these actions raise complex factual and legal issues and are subject to uncertainties. Actions that have been filed against us, and that may be filed against us in the future, include personal injury, property damage, commercial, customer, and employment-related claims, including purported state and national class action lawsuits related to: alleged environmental contamination, including releases of hazardous material and odors; sales and marketing practices, customer service agreements and prices and fees; and federal and state wage and hour and other laws. The plaintiffs in some actions seek unspecified damages or injunctive relief, or both. These actions are in various procedural stages, and some are covered in part by insurance. We currently do not believe that the eventual outcome of any such actions will have a material adverse effect on the Company's business, financial condition, results of operations or cash flows.

WMI's charter and bylaws provide that WMI shall indemnify against all liabilities and expenses, and upon request shall advance expenses to any person, who is subject to a pending or threatened proceeding because such person is or was a director or officer of the Company. Such indemnification is required to the maximum extent permitted under Delaware law. Accordingly, the director or officer must execute an undertaking to reimburse the Company for any fees advanced if it is later determined that the director or officer was not permitted to have such fees advanced under Delaware law. Additionally, the Company has direct contractual obligations to provide indemnification to each of the members of WMI's Board of Directors and each of WMI's executive officers. The Company may incur substantial expenses in connection with the fulfillment of its advancement of costs and indemnification obligations in connection with actions or proceedings that may be brought against its former or current officers, directors and employees.

Multiemployer Defined Benefit Pension Plans — About 20% of our workforce is covered by collective bargaining agreements with various local unions across the U.S. and Canada. As a result of some of these agreements, certain of our subsidiaries are participating employers in a number of Multiemployer Pension Plans for the covered employees. Refer to Note 9 for additional information about our participation in Multiemployer Pension Plans considered individually significant. In connection with our ongoing renegotiation of various collective bargaining agreements, we may discuss and negotiate for the complete or partial withdrawal from one or more of these Multiemployer Pension Plans. A complete or partial withdrawal from a Multiemployer Pension Plan may also occur if employees covered by a collective bargaining agreement vote to decertify a union from continuing to represent them. Any other circumstance resulting in a decline in Company contributions to a Multiemployer Pension Plan through a reduction in the labor force, whether through attrition over time or through a business event (such as the discontinuation or nonrenewal of a customer contract, the decertification of a union, or relocation, reduction or discontinuance of certain operations) may also trigger a complete or partial withdrawal from one or more of these pension plans.

We do not believe that any future liability relating to our past or current participation in, or withdrawals from, the Multiemployer Pension Plans to which we contribute will have a material adverse effect on our business, financial condition or liquidity. However, liability for future withdrawals could have a material adverse effect on our results of operations or cash flows for a particular reporting period, depending on the number of employees withdrawn and the financial condition of the Multiemployer Pension Plan(s) at the time of such withdrawal(s).

Tax Matters — We maintain a liability for uncertain tax positions, the balance of which management believes is adequate. Results of audit assessments by taxing authorities are not currently expected to have a material adverse effect on our financial condition, results of operations or cash flows. See Note 8 for additional discussion regarding income taxes.

11. Asset Impairments and Unusual Items

(Gain) Loss from Divestitures, Asset Impairments and Unusual Items, Net

The following table summarizes the major components of (gain) loss from divestitures, asset impairments and unusual items, net for the year ended December 31 (in millions):

	2021	2020	2019
Gain from divestitures, net	$ (44)	$ (33)	$ —
Asset impairments	8	68	42
Other	20	—	—
	$ (16)	$ 35	$ 42

During the year ended December 31, 2021, we recognized net gains of $16 million primarily consisting of (i) a $35 million pre-tax gain from the recognition of cumulative translation adjustments on the divestiture of certain non-strategic Canadian operations in our East Tier segment and (ii) an $8 million gain from divestitures of certain ancillary operations in our Other segment. These gains were partially offset by (i) a $20 million charge pertaining to reserves for loss contingencies in our Corporate and Other segment and (ii) $8 million of asset impairment charges primarily related to our WM Renewable Energy business within our Other segment.

During the year ended December 31, 2020, we recognized $35 million of net charges primarily related to (i) a $33 million net gain associated with net asset divestitures executed to address requirements of the U.S. Department of Justice in connection with our acquisition of Advanced Disposal, primarily within our West Tier segment; (ii) $41 million of non-cash impairment charges primarily related to two landfills and an oil field waste injection facility in our West Tier segment; (iii) a $20 million non-cash impairment charge in our East Tier segment due to management's decision to close a landfill once its constructed airspace is filled and abandon any remaining permitted airspace and (iv) $7 million of net charges primarily related to non-cash impairments of certain assets within our WM Renewable Energy business in our Other segment.

During the year ended December 31, 2019, we recognized asset impairments of $42 million, related to (i) $27 million of goodwill impairment charges within our Other segment, of which $17 million related to our EES business and $10 million related to our LampTracker® reporting unit, and (ii) $15 million of asset impairment charges primarily related to certain solid waste operations in our West Tier segment.

See Note 2 for additional information related to the accounting policy and analysis involved in identifying and calculating impairments. See Note 19 for additional information related to the impact of impairments on the results of operations of our reportable segments.

Equity in Net Losses of Unconsolidated Entities

During the year ended December 31, 2020, we recorded a non-cash impairment charge of $7 million related to an investment in a refined coal facility which is discussed further in Note 8. The fair value of our investment was not readily determinable; thus, we determined the fair value using management assumptions pertaining to investment value (Level 3). The remaining losses during the years ended December 31, 2021, 2020 and 2019 were primarily related to our noncontrolling interests in entities established to invest in and manage low-income housing properties. Refer to Notes 8 and 18 for additional information related to these investments.

Other, Net

In 2019, we recognized a $52 million non-cash impairment charge related to our minority-owned investment in a waste conversion technology business. We wrote down our investment to its estimated fair value as the result of recent third-party investor's transactions in these securities. The fair value of our investment was not readily determinable; thus, we determined the fair value utilizing a combination of quoted price inputs for the equity in our investment (Level 2) and certain management assumptions pertaining to investment value (Level 3).

12. Accumulated Other Comprehensive Income (Loss)

The changes in the balances of each component of accumulated other comprehensive income (loss), net of tax, which is included as a component of WMI stockholders' equity, are as follows (in millions, with amounts in parentheses representing decreases to accumulated other comprehensive income):

	Derivative Instruments	Available-for-Sale Securities	Foreign Currency Translation Adjustments(a)	Post-Retirement Benefit Obligations	Total
Balance, December 31, 2018	$ (32)	$ 23	$ (76)	$ (2)	$ (87)
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of $0, $5, $0 and $1, respectively	—	15	55	2	72
Amounts reclassified from accumulated other comprehensive (income) loss, net of tax (expense) benefit of $3, $0, $0 and $0, respectively	8	—	—	(1)	7
Net current period other comprehensive income (loss)	8	15	55	1	79
Balance, December 31, 2019	$ (24)	$ 38	$ (21)	$ (1)	$ (8)
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of $2, $4, $0 and $1, respectively	7	12	20	2	41
Amounts reclassified from accumulated other comprehensive (income) loss, net of tax (expense) benefit of $2, $0, $0 and $(1), respectively	8	(1)	—	(1)	6
Net current period other comprehensive income (loss)	15	11	20	1	47
Balance, December 31, 2020	$ (9)	$ 49	$ (1)	$ —	$ 39
Other comprehensive income (loss) before reclassifications, net of tax expense (benefit) of $0, $(2), $0 and $2 respectively	—	(6)	7	5	6
Amounts reclassified from accumulated other comprehensive (income) loss, net of tax (expense) benefit of $3, $0, $0 and $0, respectively	9	—	(35)	(2)	(28)
Net current period other comprehensive income (loss)	9	(6)	(28)	3	(22)
Balance, December 31, 2021	$ —	$ 43	$ (29)	$ 3	$ 17

(a) As a result of the divestiture of certain non-strategic Canadian operations in the third quarter of 2021, we reclassified $35 million of cumulative foreign currency translation adjustments from accumulated other comprehensive income to gain from divestitures, asset impairments and unusual items within our Consolidated Statement of Operations.

13. Capital Stock, Dividends and Common Stock Repurchase Program

Capital Stock

We have 1.5 billion shares of authorized common stock with a par value of $0.01 per common share. As of December 31, 2021, we had 416.1 million shares of common stock issued and outstanding. The Board of Directors is authorized to issue preferred stock in series, and with respect to each series, to fix its designation, relative rights (including voting, dividend, conversion, sinking fund, and redemption rights), preferences (including dividends and liquidation) and limitations. We have 10 million shares of authorized preferred stock, $0.01 par value, none of which is currently outstanding.

Dividends

Our quarterly dividends have been declared by our Board of Directors. Cash dividends declared and paid were $970 million in 2021, or $2.30 per common share, $927 million in 2020, or $2.18 per common share, and $876 million in 2019, or $2.05 per common share.

In December 2021, we announced that our Board of Directors expects to increase the quarterly dividend from $0.575 to $0.65 per share for dividends declared in 2022. However, all future dividend declarations are at the discretion of the Board of Directors and depend on various factors, including our net earnings, financial condition, cash required for future business plans, growth and acquisitions and other factors the Board of Directors may deem relevant.

Common Stock Repurchase Program

The Company repurchases shares of its common stock as part of capital allocation programs authorized by our Board of Directors. Share repurchases during the reported periods were completed through accelerated share repurchase ("ASR") agreements and, to a lesser extent, open market transactions. The terms of these ASR agreements required that we deliver cash at the beginning of each ASR repurchase period. In exchange, we received a portion of the total shares expected to be repurchased based on the then-current market price of our common stock. The remaining shares repurchased over the course of each repurchase period are delivered to us once the repurchase period is complete. In the table below, shares repurchased are measured and reported based on the period shares are delivered to us, which can differ from the period cash is delivered to a repurchase agent for the value of such shares. During 2021, we allocated an aggregate of $1.35 billion in cash under ASR agreements to repurchase shares. As of December 31, 2021, we had received 8.7 million shares with a weighted average price per share of $146.61. In January 2022, we completed our ASR agreement executed in December 2021, at which time we received an additional 0.4 million shares. The following is a summary of our share repurchases under our common stock repurchase program for the year ended December 31:

	2021(a)	2020(b)	2019(c)
Shares repurchased (in thousands)	8,731	3,687	2,247
Weighted average price per share	$ 146.61	$ 108.92	$ 108.60
Total repurchases (in millions)	$ 1,280	$ 402	$ 244

(a) We executed and completed three ASR agreements during 2021 to repurchase $1.0 billion of our common stock and received 7.0 million shares in connection with these ASR agreements.

In addition, in December 2021, we executed an ASR agreement to repurchase $350 million of our common stock. At the beginning of the repurchase period, we delivered $350 million in cash and received 1.7 million shares based on a stock price of $160.67. The ASR agreement completed in January 2022, at which time we received 0.4 million additional shares based on a final weighted average price of $160.33.

(b) During 2020, we executed and completed an ASR agreement to repurchase $313 million of our common stock and received 2.8 million shares in connection with this ASR agreement. We also repurchased an additional 0.9 million shares of our common stock in open market transactions in compliance with Rule 10b5-1 and Rule 10b-18 of the Securities Exchange Act of 1934 ("Exchange Act") for $89 million, inclusive of per-share commissions.

(c) During 2019, we executed and completed an ASR agreement to repurchase $180 million of our common stock and received 1.6 million shares in connection with this ASR agreement. We also repurchased an additional 0.7 million shares of our common stock in open market transactions in compliance with Rule 10b5-1 and Rule 10b-18 of the Exchange Act for $64 million, inclusive of per-share commissions.

We announced in December 2021 that the Board of Directors has authorized up to $1.5 billion in future share repurchases. Any future share repurchases will be made at the discretion of management and will depend on factors similar to those considered by the Board of Directors in making dividend declarations, including our net earnings, financial condition and cash required for future business plans, growth and acquisitions.

14. Equity-Based Compensation

Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan ("ESPP") under which employees that have been employed for at least 30 days may purchase shares of our common stock at a discount. The plan provides for two offering periods for purchases: January through June and July through December. At the end of each offering period, enrolled employees purchase shares of our common stock at a price equal to 85% of the lesser of the market value of the stock on the first and last day of such offering period. The purchases are made at the end of an offering period with funds accumulated through payroll deductions over the course of the offering period. Subject to limitations set forth in the plan and under IRS regulations, eligible employees may elect to have up to 10% of their base pay deducted during the offering period. The total number of shares issued under the plan for the offering periods in 2021, 2020 and 2019 was approximately 513,000, 570,000 and 537,000, respectively. After the January 2022 issuance of shares associated with the July to December 2021 offering period, 2.7 million shares remain available for issuance under the ESPP.

As a result of our ESPP, annual compensation expense increased by $12 million, or $9 million net of tax expense, for 2021, $13 million, or $10 million net of tax expense, for 2020 and $10 million, or $7 million net of tax expense, for 2019.

Employee Stock Incentive Plans

In May 2014, our stockholders approved our 2014 Stock Incentive Plan (the "2014 Plan") to replace our 2009 Stock Incentive Plan (the "2009 Plan"). The 2014 Plan authorized 23.8 million shares of our common stock for issuance pursuant to the 2014 Plan, plus the approximately 1.1 million shares that then remained available for issuance under the 2009 Plan, and any shares subject to outstanding awards under both incentive plans that are subsequently cancelled, forfeited, terminate, expire or lapse. In May 2020, the Company's Board of Directors amended the 2014 Plan to provide that the number of future shares surrendered in payment of the exercise or purchase price of an award, and the number of future shares used to satisfy the withholding obligations, shall no longer be credited back to the total number of shares available for issuance under the 2014 Plan. As of December 31, 2021, approximately 16.9 million shares were available for future grants under the 2014 Plan. All of our equity-based compensation awards described herein have been made pursuant to either our 2009 Plan or our 2014 Plan, collectively referred to as the "Incentive Plans." We currently utilize treasury shares to meet the needs of our equity-based compensation programs.

Pursuant to the Incentive Plans, we have the ability to issue stock options, stock appreciation rights and stock awards, including restricted stock, restricted stock units ("RSUs") and performance share units ("PSUs"). The terms and conditions of equity awards granted under the Incentive Plans are determined by the Management Development and Compensation Committee of our Board of Directors.

The 2021 annual incentive plan awards granted to the Company's senior leadership team, which generally includes the Company's executive officers, included a combination of PSUs and stock options. Additionally, one member of the Company's senior leadership team received a grant of RSUs in 2021 in special recognition of 2020 contributions. The Incentive Plans awards granted to other eligible employees included a combination of PSUs, RSUs and stock options in 2021. The Company also periodically grants RSUs to employees working on key initiatives, in connection with new hires and promotions and to field-based managers.

Restricted Stock Units — A summary of our RSUs is presented in the table below (units in thousands):

	Units	Weighted Average Per Share Fair Value
Unvested as of January 1, 2021	331	$ 103.84
Granted	140	$ 118.11
Vested	(101)	$ 85.59
Forfeited	(27)	$ 114.18
Unvested as of December 31, 2021	343	$ 114.28

The total fair market value of RSUs that vested during the years ended December 31, 2021, 2020 and 2019 was $12 million, $14 million and $15 million, respectively. During the year ended December 31, 2021, we issued approximately 72,000 shares of common stock for these vested RSUs, net of approximately 29,000 units deferred or used for payment of associated taxes.

RSUs may not be voted or sold by award recipients until time-based vesting restrictions have lapsed. RSUs primarily provide for three-year cliff vesting and include dividend equivalents accumulated during the vesting period. Unvested units are subject to forfeiture in the event of voluntary or for-cause termination. RSUs are generally subject to pro-rata vesting upon an employee's involuntary termination other than for cause and generally payout at the end of the three-year vesting period and become immediately vested in the event of an employee's death or disability.

Compensation expense associated with RSUs is measured based on the grant-date fair value of our common stock and is recognized on a straight-line basis over the required employment period. Beginning in 2021, the terms of the award agreements for new grants of RSUs were updated to provide for accelerated vesting following retirement as if the employee had remained employed until the end of the vesting period. Accordingly, compensation expense for RSUs granted to retirement eligible employees is recognized over the longer of (i) the period between grant date and the date that the recipient becomes retirement-eligible or (ii) the defined service requirement of the award. Compensation expense is only recognized for those awards that we expect to vest, which we estimate based upon an assessment of expected forfeitures.

Performance Share Units — Two types of PSUs are currently outstanding: (i) PSUs for which payout is dependent on total shareholder return relative to the S&P 500 Index ("TSR PSUs") and (ii) PSUs for which payout is dependent on the Company's performance against pre-established adjusted cash flow metrics ("Cash Flow PSUs"). Both types of PSUs are payable in shares of common stock after the end of a three-year performance period, when the Company's financial performance for the entire performance period is reported, typically in mid- to late-February of the succeeding year. At the end of the performance period, the number of shares awarded can range from 0% to 200% of the targeted amount, depending on the performance against the pre-established targets. A summary of our PSUs, at 100% of the targeted amount, is presented in the table below (units in thousands):

	Units	Weighted Average Per Share Fair Value
Unvested as of January 1, 2021	999	$ 120.95
Granted	336	$ 122.59
Vested	(353)	$ 98.45
Forfeited	(14)	$ 130.49
Unvested as of December 31, 2021	968	$ 129.60

The determination of achievement of performance results and corresponding vesting of PSUs for the three-year performance period ended December 31, 2021 was performed by the Management Development and Compensation

Committee of our Board of Directors in February 2022. Accordingly, vesting information for such awards is not included in the table above as of December 31, 2021. The "vested" PSUs are for the three-year performance period ended December 31, 2020, as achievement of performance results and corresponding vesting was determined in February 2021. The performance of the Company's common stock for purposes of the TSR PSUs exceeded target performance criteria, and the Company's financial results, as measured for purposes of the Cash Flow PSUs, achieved the maximum performance criteria. Accordingly, recipients of the PSU awards received a payout of 172.84% of the vested TSR PSUs and 200% of the vested Cash Flow PSUs. In February 2021, approximately 659,000 PSUs vested and we issued approximately 435,000 shares of common stock for these vested PSUs, net of units deferred or used for payment of associated taxes. The shares of common stock that were issued or deferred during the years ended December 31, 2021, 2020 and 2019 for prior PSU award grants had a fair market value of $74 million, $89 million and $84 million, respectively.

PSUs have no voting rights. PSUs receive dividend equivalents that are paid out in cash based on the number of shares that vest at the end of the awards' performance period. Subject to attainment of the performance metrics described above, PSUs are payable to an employee (or his beneficiary) upon death or disability as if that employee had remained employed until the end of the performance period. PSUs are generally subject to pro-rata vesting upon an employee's involuntary termination other than for cause and are subject to forfeiture in the event of voluntary or for-cause termination. The terms of the award agreements for outstanding PSUs provide for continued vesting following retirement as if the employee had remained employed until the end of the performance period, and compensation expense for PSUs granted to retirement-eligible employees is accelerated over the period that the recipient becomes retirement-eligible plus a defined service requirement.

Compensation expense associated with our Cash Flow PSUs is based on the grant-date fair value of our common stock. Compensation expense is recognized ratably over the performance period based on our estimated achievement of the established performance criteria. Compensation expense is only recognized for those awards that we expect to vest, which we estimate based upon an assessment of both the probability that the performance criteria will be achieved and expected forfeitures. The grant-date fair value of our TSR PSUs is based on a Monte Carlo valuation and compensation expense is recognized on a straight-line basis over the vesting period. Compensation expense is recognized for all TSR PSUs whether or not the market conditions are achieved less expected forfeitures.

Deferred Units — Certain employees can elect to defer some or all of the vested RSU or PSU awards until a specified date or dates they choose. Deferred units are not invested, nor do they earn interest, but deferred amounts do receive dividend equivalents paid in cash during deferral at the same time and at the same rate as dividends on the Company's common stock. Deferred amounts are paid out in shares of common stock at the end of the deferral period. As of December 31, 2021, we had approximately 201,000 vested deferred units outstanding.

Stock Options — Stock options granted prior to 2021 vest in 25% increments on the first two anniversaries of the date of grant with the remaining 50% vesting on the third anniversary. Stock options granted in 2021 vest ratably in three annual increments, beginning on the first anniversary of the date of grant. The exercise price of the options is the average of the high and low market value of our common stock on the date of grant, and the options have a term of 10 years. A summary of our stock options is presented in the table below (options in thousands):

	Options	Weighted Average Per Share Exercise Price
Outstanding as of January 1, 2021	3,543	$ 82.86
Granted	661	$ 110.81
Exercised	(962)	$ 68.89
Forfeited or expired	(36)	$ 109.50
Outstanding as of December 31, 2021 (a)	3,206	$ 92.53
Exercisable as of December 31, 2021 (b)	1,672	$ 74.08

(a) Stock options outstanding as of December 31, 2021 have a weighted average remaining contractual term of 6.6 years and an aggregate intrinsic value of $238 million based on the market value of our common stock on December 31, 2021.

(b) Stock options exercisable as of December 31, 2021 have an aggregate intrinsic value of $155 million based on the market value of our common stock on December 31, 2021.

We received cash proceeds of $66 million, $63 million and $67 million during the years ended December 31, 2021, 2020 and 2019, respectively, from employee stock option exercises. The aggregate intrinsic value of stock options exercised during the years ended December 31, 2021, 2020 and 2019 was $66 million, $58 million and $71 million, respectively.

Stock options exercisable as of December 31, 2021 were as follows (options in thousands):

Range of Exercise Prices	Options	Weighted Average Per Share Exercise Price	Weighted Average Remaining Years
$34.94-$50.00	281	$ 39.29	1.7
$50.01-$70.00	405	$ 55.52	3.7
$70.01-$100.00	831	$ 85.15	6.1
$100.01-$126.01	155	$ 126.01	8.1
$34.94-$126.01	1,672	$ 74.08	5.0

All unvested stock options shall become exercisable upon the award recipient's death or disability. In the event of a recipient's retirement, stock options shall continue to vest pursuant to the original schedule set forth in the award agreement. If the recipient is terminated by the Company without cause or voluntarily resigns, the recipient shall be entitled to exercise all stock options outstanding and exercisable within a specified time frame after such termination. All outstanding stock options, whether exercisable or not, are forfeited upon termination for cause.

We account for our employee stock options under the fair value method of accounting using a Black-Scholes valuation model to measure stock option expense at the date of grant. The weighted average grant-date fair value of stock options granted during the years ended December 31, 2021, 2020 and 2019 was $17.25, $15.82 and $12.22, respectively. The fair value of stock options at the date of grant is amortized to expense over the vesting period less expected forfeitures, except for stock options granted to retirement-eligible employees, for which expense is accelerated over the period that the recipient becomes retirement-eligible. The following table presents the weighted average assumptions used to value employee stock options granted during the year ended December 31 under the Black-Scholes valuation model:

	2021	2020	2019
Expected option life	4.7 years	4.6 years	4.2 years
Expected volatility	23.2 %	16.6 %	15.5 %
Expected dividend yield	2.1 %	1.7 %	2.1 %
Risk-free interest rate	0.6 %	1.4 %	2.5 %

The Company bases its expected option life on the expected exercise and termination behavior of its optionees and an appropriate model of the Company's future stock price. The expected volatility assumption is derived from the historical volatility of the Company's common stock over the most recent period commensurate with the estimated expected life of the Company's stock options, combined with other relevant factors including implied volatility in market-traded options on the Company's stock. The expected dividend yield is the annual rate of dividends per share over the exercise price of the option as of the grant date.

For the years ended December 31, 2021, 2020 and 2019, we recognized $94 million, $79 million and $75 million, respectively, of compensation expense associated with RSU, PSU and stock option awards as a component of selling, general and administrative expenses in our Consolidated Statements of Operations. Our income tax expense for the years ended December 31, 2021, 2020 and 2019 includes related income tax benefits of $18 million, $15 million and $17 million, respectively. We have not capitalized any equity-based compensation costs during the reported periods.

As of December 31, 2021, we estimate that $49 million of currently unrecognized compensation expense will be recognized over a weighted average period of 1.5 years for our unvested RSU, PSU and stock option awards issued and outstanding.

Non-Employee Director Plan

Our non-employee directors currently receive annual grants of shares of our common stock, generally payable in two equal installments, under the 2014 Plan described above.

15. Earnings Per Share

Basic and diluted earnings per share were computed using the following common share data for the year ended December 31 (shares in millions):

	2021	2020	2019
Number of common shares outstanding at end of period	416.1	422.8	424.3
Effect of using weighted average common shares outstanding	4.3	0.2	0.3
Weighted average basic common shares outstanding	420.4	423.0	424.6
Dilutive effect of equity-based compensation awards and other contingently issuable shares	2.5	2.1	2.9
Weighted average diluted common shares outstanding	422.9	425.1	427.5
Potentially issuable shares	5.7	6.1	6.7
Number of anti-dilutive potentially issuable shares excluded from diluted common shares outstanding	0.6	1.6	0.7

Refer to the Consolidated Statements of Operations for net income attributable to Waste Management, Inc.

16. Fair Value Measurements

Assets and Liabilities Accounted for at Fair Value

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When measuring assets and liabilities that are required to be recorded at fair value, the Company considers the principal or most advantageous market in which the Company would transact. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 — Inputs that are generally unobservable and typically reflect management's estimate of assumptions that market participants would use in pricing the asset or liability.

We use valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. In measuring the fair value of our assets and liabilities, we use market data or assumptions that we believe market participants would use in pricing an asset or liability, including assumptions about risk when appropriate. Our assets and liabilities that are measured at fair value on a recurring basis include the following as of December 31 (in millions):

	2021	2020
Quoted prices in active markets (Level 1):		
Cash equivalents and money market funds	$ 38	$ 530
Equity securities	25	—
Significant other observable inputs (Level 2):		
Available-for-sale securities	395	390
Significant unobservable inputs (Level 3):		
Redeemable preferred stock	49	49
Total Assets	$ 507	$ 969

See Note 11 for information related to our nonrecurring fair value measurements and the impact of impairments. See Note 17 for information related to the nonrecurring fair value measurement of assets and liabilities acquired in connection with our acquisitions.

Cash Equivalents and Money Market Funds

Cash equivalents primarily include short-term interest-bearing instruments with maturities of three months or less. We invest portions of our restricted trust and escrow account balances in money market funds and we measure the fair value of these investments using quoted prices in active markets for identical assets. The fair value of our cash equivalents and money market funds approximates our cost basis in these instruments. The decrease in 2021 is primarily due to the use of available cash to retire certain high-coupon senior notes in May 2021, which is discussed further in Note 6.

Equity Securities

We invest portions of our restricted trust and escrow account balances in equity securities and we measure the fair value of these securities using quoted prices in active markets for identical assets. Any changes in fair value of these securities related to unrealized gains and losses have been appropriately reflected as a component of other income (expense).

Available-for-Sale Securities

Our available-for-sale securities include restricted trust and escrow account balances and an investment in an unconsolidated entity, as discussed in Note 18. We invest primarily in debt securities, including U.S. Treasury securities, U.S. agency securities, municipal securities and mortgage- and asset-backed securities, which generally mature over the next nine years. We measure the fair value of these securities using quoted prices for identical or similar assets in inactive markets. Any changes in fair value of these trusts related to unrealized gains and losses have been appropriately reflected as a component of accumulated other comprehensive income (loss).

Redeemable Preferred Stock

Redeemable preferred stock is related to a noncontrolling investment in an unconsolidated entity and is included in investments in unconsolidated entities in our Consolidated Balance Sheets. The fair value of our investment has been measured based on third-party investors' recent or pending transactions in these securities, which are considered the best evidence of fair value. When this evidence is not available, we use other valuation techniques as appropriate and available. These valuation methodologies may include transactions in similar instruments, discounted cash flow techniques, third-party appraisals or industry multiples and public company comparable transactions.

Fair Value of Debt

As of December 31, 2021 and 2020, the carrying value of our debt was $13.4 billion and $13.8 billion, respectively. The estimated fair value of our debt was approximately $14.1 billion and $15.2 billion as of December 31, 2021 and 2020, respectively. The decrease in the fair value of debt is primarily related to (i) net repayments of $456 million during 2021; (ii) the replacement of debt balances with a relatively high fair value to carrying value ratio with new debt with a fair value that approximates carrying value (refer to Note 6 for additional information) and (iii) increases in current market rates of our senior notes.

Although we have determined the estimated fair value amounts using available market information and commonly accepted valuation methodologies, considerable judgment is required in interpreting market data to develop the estimates of fair value. Accordingly, our estimates are not necessarily indicative of the amounts that we, or holders of the instruments, could realize in a current market exchange. The use of different assumptions or estimation methodologies could have a material effect on the estimated fair values. The fair value estimates are based on Level 2 inputs of the fair value hierarchy available as of December 31, 2021 and 2020. These amounts have not been revalued since those dates, and current estimates of fair value could differ significantly from the amounts presented.

17. Acquisitions and Divestitures

Acquisitions

We continue to pursue the acquisition of businesses that are accretive to our Solid Waste business and enhance and expand our existing service offerings. Our acquisitions for the reported periods are discussed below:

2021 Acquisitions

During the year ended December 31, 2021, we acquired 11 businesses primarily related to our Solid Waste business. Total consideration, net of cash acquired, for all acquisitions was $94 million, which included $73 million in net cash paid and $21 million of other consideration, primarily purchase price holdbacks and the settlement of a preexisting promissory note with one of the acquired businesses. In addition, we paid $3 million of holdbacks, primarily related to current year acquisitions.

Our 2021 acquisitions discussed above include our acquisition of the remaining ownership interest in a waste diversion technology company. Concurrent with our acquisition, the acquired entity issued shares to an unrelated third-party, diluting our ownership interest. We determined the entity constituted a variable interest entity and concluded that we did not have the power to direct its significant activities. As a result, we subsequently deconsolidated the entity and account for our remaining ownership interest as an equity method investment.

2020 Acquisitions

During the year ended December 31, 2020, we acquired four businesses related to our Solid Waste business, including the acquisition of Advanced Disposal discussed further below. Total consideration, net of cash acquired of $36 million, for all acquisitions was $4.1 billion, none of which related to other consideration such as purchase price holdbacks. In 2020, we paid $3 million of holdbacks, all of which related to prior year acquisitions. Contingent consideration obligations are primarily based on achievement by the acquired businesses of certain negotiated goals, which generally include targeted financial metrics.

Advanced Disposal — On October 30, 2020, we completed our acquisition of all outstanding shares of Advanced Disposal for $30.30 per share in cash, pursuant to an Agreement and Plan of Merger dated April 14, 2019, as amended on June 24, 2020. Total enterprise value of the acquisition was $4.6 billion when including approximately $1.8 billion of Advanced Disposal's net debt. This acquisition grew our footprint and allows us to provide differentiated, sustainable waste management and recycling services to approximately three million new commercial, industrial and residential customers, primarily located in the Eastern half of the U.S. The acquisition was funded using a $3.0 billion, 364-day, U.S. revolving credit facility and our commercial paper program. In November 2020, we issued $2.5 billion of senior notes and used a portion of the proceeds to repay all outstanding borrowings under the $3.0 billion, 364-day, U.S. revolver and terminated the facility.

For the year ended December 31, 2021, we incurred $51 million of integration related costs, and for the year ended December 31, 2020, we incurred $156 million of acquisition and integration related costs, which were primarily classified as "Selling, general and administrative expenses." The post-closing operating results of Advanced Disposal have been included in our consolidated financial statements, within our existing reportable segments. Post-closing through December 31, 2020, Advanced Disposal recognized $205 million, $142 million and $60 million of revenue, operating expenses and selling, general and administrative expenses, respectively, which are included in our Consolidated Statement of Operations.

Our consolidated financial statements have not been retroactively restated to include Advanced Disposal's historical financial position or results of operations. The acquisition was accounted for as a business combination. In accordance with the purchase method of accounting, the purchase price paid has been allocated to the assets and liabilities acquired based upon their estimated fair values as of the acquisition date, with the excess of the purchase price over the net assets acquired recorded as goodwill. The Company valued the customer relationship asset using an income approach; specifically, the multi-period excess earnings method. The significant assumptions used to value customer relationships included, among others, attrition rates, revenue growth rate, and discount rate. The Company valued the landfill assets using an income approach; specifically, the multi-period excess earnings method. The significant assumptions used to value landfill assets included, among others, the forecasted revenue and revenue growth (including forecasted waste volumes and rate per ton), discount rate, and forecasted capital expenditures. The allocation of the purchase price was finalized in October 2021.

Goodwill of $2.5 billion was calculated as the excess of the consideration paid over the net assets recognized and represents the future economic benefits expected to arise from other assets acquired that could not be individually identified and separately recognized. Goodwill has been assigned to our reporting units that have integrated these operations as they are benefitting from the synergies of the combination. Goodwill related to this acquisition is not deductible for income tax purposes.

The following table shows the purchase price allocation as of the date acquired, and adjustments to October 30, 2021 (in millions):

	October 30, 2020	Adjustments	October 30, 2021
Accounts and other receivables	$ 159	$ 1	$ 160
Parts and supplies	8	(1)	7
Other current assets	17	(1)	16
Assets held for sale (a)	1,022	—	1,022
Property and equipment	1,278	(12)	1,266
Goodwill	2,470	26	2,496
Other intangible assets	604	(3)	601
Investments in unconsolidated entities	9	—	9
Other assets	27	(2)	25
Accounts payable	(107)	1	(106)
Accrued liabilities	(155)	(3)	(158)
Deferred revenues	(19)	—	(19)
Current portion of long-term debt	(12)	—	(12)
Liabilities held for sale (a)	(234)	—	(234)
Long-term debt, less current portion (b)	(441)	—	(441)
Landfill and environmental remediation liabilities	(242)	(13)	(255)
Deferred income taxes	(223)	9	(214)
Other liabilities	(79)	(2)	(81)
Total purchase price	$ 4,082	$ —	$ 4,082

(a) In connection with our acquisition of Advanced Disposal, we and Advanced Disposal entered into an agreement that provided for GFL Environmental to acquire a combination of assets from us and Advanced Disposal to address divestitures required by the U.S. Department of Justice. Upon acquisition these assets met the criteria for reporting discontinued operations and were classified as held for sale and included within the "Assets held for sale" and "Liabilities held for sale" line items in the above final allocation of purchase price. Immediately following the acquisition, the divestiture transactions were consummated and the Company subsequently received cash proceeds from the sale of $856 million.

(b) At the time of acquisition, Advanced Disposal had outstanding $425 million of 5.625% senior notes due November 2024, the fair value of which was $438 million. In November 2020, we redeemed the notes pursuant to an optional redemption feature.

The final allocation of $601 million for other intangibles includes $572 million for customer relationships with an amortization period of 15 years and $29 million of other intangibles with a weighted average amortization period of seven years.

The unaudited pro forma financial information in the table below summarizes the combined results of operations for the Company and Advanced Disposal as though the companies had been combined as of January 1, 2019. Examples of adjustments made to arrive at the pro forma amounts include, but are not limited to, the following:

- The effect of divestitures required by the U.S. Department of Justice;
- Intercompany true-ups based on acquisition/divestiture activity;
- Transaction expenses incurred by us and Advanced Disposal;
- Adjustments to depreciation and amortization expense due to step-up in fair value of the acquired assets; and
- Interest expense adjustments.

The following unaudited pro forma financial information is for informational purposes only and is not necessarily indicative of the results of operations that would have been achieved as if the acquisition had taken place as of January 1, 2019 for the year ended December 31 (in millions, except per share amounts):

	2020	2019
Operating revenues	$ 16,192	$ 16,660
Net income attributable to Waste Management, Inc.	1,685	1,472
Basic earnings per common share	3.99	3.47
Diluted earnings per common share	3.96	3.44
Weighted average common shares outstanding:		
Basic	423	425
Diluted	425	428

2019 Acquisitions

During the year ended December 31, 2019, we acquired 18 businesses, including Petro Waste Environmental LP ("Petro Waste") discussed below, primarily related to our Solid Waste business. Total consideration, net of cash acquired, for all acquisitions was $515 million, which included $501 million in cash paid and other consideration of $14 million, primarily purchase price holdbacks. In 2019, we paid $6 million of contingent consideration, of which $4 million was related to acquisitions completed prior to 2019. In addition, we paid $20 million of holdbacks, of which $9 million related to 2019 acquisitions. Contingent consideration obligations are primarily based on achievement by the acquired businesses of certain negotiated goals, which generally include targeted financial metrics.

Total consideration for our 2019 acquisitions was primarily allocated to $350 million of property and equipment, $53 million of other intangible assets and $111 million of goodwill. Other intangible assets included $38 million of customer relationships and $15 million of covenants not-to-compete. The goodwill was primarily a result of expected synergies from combining the acquired businesses with our existing operations and was tax deductible.

Petro Waste — On March 8, 2019, Waste Management Energy Services Holdings, LLC, an indirect wholly-owned subsidiary of WMI, acquired Petro Waste. The acquired business provides comprehensive oilfield environmental services and solid waste disposal facilities in the Permian Basin and the Eagle Ford Shale. The acquisition expanded our offerings and enhanced the quality of solid waste disposal services for oil and gas exploration and production operations in Texas. Our purchase price was primarily allocated to seven landfills, which are included in our property and equipment. The acquisition was funded using commercial paper borrowings, and the acquisition accounting for this transaction was finalized in 2019. The operating results of the acquired business did not have a material impact to our consolidated financial statements for the periods presented herein. Given the significant change in energy market dynamics subsequent to the acquisition, we saw a decline in the fair value of certain of these assets and recognized an impairment during 2020, as discussed further in Note 11.

Divestitures

In 2021, 2020 and 2019, the aggregate sales price for divestitures of certain landfill assets, as well as hauling and ancillary operations, was $48 million, $856 million and $8 million, and we recognized net gains of $44 million, net gains of $33 million and net losses of less than $1 million, respectively. In 2021, divestitures primarily related to the sale of certain non-strategic Canadian operations, as discussed in Note 11. In 2020, divestitures primarily consisted of assets required to be sold by the U.S. Department of Justice in connection with our acquisition of Advanced Disposal, as discussed above. In 2019, divestitures were part of our continuous focus on improving or divesting certain non-strategic or underperforming operations. The remaining amounts reported in the Consolidated Statements of Cash Flows generally relate to the sale of fixed assets.

18. Variable Interest Entities

Following is a description of our financial interests in unconsolidated and consolidated variable interest entities that we consider significant:

Low-Income Housing Properties

We do not consolidate our investments in entities established to manage low-income housing properties because we are not the primary beneficiary of these entities as we do not have the power to individually direct the activities of these entities. Accordingly, we account for these investments under the equity method of accounting. Our aggregate investment balance in these entities was $178 million and $228 million as of December 31, 2021 and 2020, respectively. The debt balance related to our investments in low-income housing properties was $156 million and $210 million as of December 31, 2021 and 2020, respectively.

Trust Funds for Final Capping, Closure, Post-Closure or Environmental Remediation Obligations

Unconsolidated Variable Interest Entities — Trust funds that are established for both the benefit of the Company and the host community in which we operate are not consolidated because we are not the primary beneficiary of these entities as (i) we do not have the power to direct the significant activities of the trusts or (ii) power over the trusts' significant activities is shared. Our interests in these trusts are accounted for as investments in unconsolidated entities and receivables. These amounts are recorded in other receivables, investments in unconsolidated entities and long-term other assets in our Consolidated Balance Sheets, as appropriate. We also reflect our share of the unrealized gains and losses on available-for-sale securities held by these trusts as a component of our accumulated other comprehensive income (loss). Our investments and receivables related to these trusts had an aggregate carrying value of $110 million and $106 million as of December 31, 2021 and 2020, respectively.

Consolidated Variable Interest Entities — Trust funds for which we are the sole beneficiary are consolidated because we are the primary beneficiary. These trust funds are recorded in restricted trust and escrow accounts in our Consolidated Balance Sheets. Unrealized gains and losses on available-for-sale securities held by these trusts are recorded as a component of accumulated other comprehensive income (loss). These trusts had a fair value of $117 million and $114 million as of December 31, 2021 and 2020, respectively.

19. Segment and Related Information

In 2021, our senior management began evaluating, overseeing and managing the financial performance of our Solid Waste operations through two operating segments. Our East Tier primarily consists of geographic areas located in the Eastern U.S., the Great Lakes region and substantially all of Canada. Our West Tier primarily includes geographic areas located in the Western U.S., including the upper Midwest region, and British Columbia, Canada. Each of our Solid Waste operating segments provides integrated environmental services, including collection, transfer, recycling, and disposal. The Company finalized the assessment of our segments during the fourth quarter of 2021. The East and West Tiers are presented in this report and constitute our existing Solid Waste business. This did not result in a change in our reporting units for purposes of evaluating our goodwill. Reclassifications have been made to our prior period consolidated financial information to conform to the current year presentation.

The operating segments not evaluated and overseen through our East and West Tiers are presented herein as “Other” as these operating segments do not meet the criteria to be aggregated with other operating segments and do not meet the quantitative criteria to be separately reported.

Summarized financial information concerning our reportable segments as of December 31 and for the year then ended is shown in the following table (in millions):

	Gross Operating Revenues	Intercompany Operating Revenues(d)	Net Operating Revenues	Income from Operations(e)	Depreciation and Amortization	Capital Expenditures (f)	Total Assets (g)(h)
Years Ended December 31:							
2021							
Solid Waste:							
East Tier	$ 9,278	$ (1,738)	$ 7,540	$ 2,037	$ 970	$ 708	$ 14,269
West Tier	9,369	(1,908)	7,461	2,103	883	579	11,476
Solid Waste (a)	18,647	(3,646)	15,001	4,140	1,853	1,287	25,745
Other (b)	3,046	(116)	2,930	34	70	181	1,275
	21,693	(3,762)	17,931	4,174	1,923	1,468	27,020
Corporate and Other (c)	—	—	—	(1,209)	76	571	2,372
Total	$ 21,693	$ (3,762)	$ 17,931	$ 2,965	$ 1,999	$ 2,039	$ 29,392
2020							
Solid Waste:							
East Tier	$ 7,873	$ (1,503)	$ 6,370	$ 1,672	$ 801	$ 537	$ 14,274
West Tier	8,241	(1,657)	6,584	1,800	738	465	11,501
Solid Waste (a)	16,114	(3,160)	12,954	3,472	1,539	1,002	25,775
Other (b)	2,364	(100)	2,264	(42)	87	75	2,064
	18,478	(3,260)	15,218	3,430	1,626	1,077	27,839
Corporate and Other (c)	—	—	—	(996)	45	508	1,810
Total	$ 18,478	$ (3,260)	$ 15,218	$ 2,434	$ 1,671	$ 1,585	$ 29,649
2019							
Solid Waste:							
East Tier	$ 8,098	$ (1,519)	$ 6,579	$ 1,847	$ 776	$ 670	$ 11,600
West Tier	8,289	(1,608)	6,681	1,934	687	620	9,720
Solid Waste (a)	16,387	(3,127)	13,260	3,781	1,463	1,290	21,320
Other (b)	2,317	(122)	2,195	(158)	75	118	1,648
	18,704	(3,249)	15,455	3,623	1,538	1,408	22,968
Corporate and Other (c)	—	—	—	(917)	36	407	5,042
Total	$ 18,704	$ (3,249)	$ 15,455	$ 2,706	$ 1,574	$ 1,815	$ 28,010

(a) Income from operations provided by our Solid Waste business is generally indicative of the margins provided by our collection, landfill, transfer and recycling lines of business. From time to time, the operating results of our reportable segments are significantly affected by certain transactions or events that management believes are not indicative or representative of our results.

Income from operations in our Solid Waste business increased for 2021, as compared with 2020, primarily due to (i) revenue growth in our collection and disposal businesses driven by both yield and volume, as well as the acquisition of Advanced Disposal; (ii) improved profitability in our recycling business from higher market prices for recycling commodities and improved costs at facilities where we have made investments in enhanced technology and equipment and (iii) changes from divestitures, asset impairments and unusual items as discussed further in Note 11. These increases were partially offset by (i) labor cost pressure from frontline employee wage adjustments, increased turnover driving up training costs and higher overtime due to driver shortages and volume growth; (ii) increased landfill amortization from higher volumes and revisions in landfill estimates, including the anticipated timing of capping, closure and post-closure activities at certain landfills and adjustments in 2020 to the inflation rate used to estimate capping, closure, and post-closure asset retirement obligations that benefitted costs in 2020 and (iii) inflationary cost pressures. During 2021, the positive earnings contributions from Advanced Disposal were offset by elevated depreciation and amortization of acquired assets.

Income from operations for 2020 decreased, as compared with 2019, for the Solid Waste business due to the overall negative impact of the COVID-19 pandemic resulting in revenue declines from lower volumes and higher depreciation expense which was primarily related to investments in capital assets, including our fleet and facilities. The declines were partially offset by (i) higher yield in our collection and disposal businesses; (ii) the benefit of resumed fees and price increases; (iii) lower operating costs directly related to our proactive steps taken to manage our variable costs in the lower volume environment and (iv) a net divestiture gain of $33 million associated with the sale of net assets to GFL Environmental, primarily within our West Tier segment.

Additionally, income from operations for our West Tier segment was impacted by $41 million of non-cash asset impairment charges primarily related to two landfills and an oil field waste injection facility. Income from operations for our East Tier segment was impacted by a $20 million non-cash impairment charge related to management's decision to close a landfill once its constructed airspace is filled and abandon any remaining permitted airspace. Furthermore, in 2019, our West Tier segment benefited from the clean-up efforts of natural disasters primarily in California and similar efforts did not recur in 2020.

(b) "Other" includes (i) elements of our WMSBS business; (ii) elements of our landfill gas-to-energy operations managed by our WM Renewable Energy business and not included in the operations of our reportable segments; (iii) elements of our third-party subcontract and administration revenues managed by our EES business and not included in the operations of our reportable segments; (iv) our recycling brokerage services and (v) certain other expanded service offerings and solutions. In addition, our "Other" segment reflects the results of non-operating entities that provide financial assurance and self-insurance support for our Solid Waste business, net of intercompany activity.

The increase in income from operations for 2021, as compared with 2020, was primarily driven by increased market values for renewable energy credits generated by our WM Renewable Energy business.

Income from operations for the Other segment for 2020, as compared with 2019, was favorably impacted primarily by (i) volume increases in our WM Renewable Energy business as a result of a new renewable energy facility coming online; (ii) our WMSBS business as a result of newly executed national account contracts and (iii) our recycling brokerage business.

(c) "Corporate and other" operating results reflect certain costs incurred for various support services that are not allocated to our reportable segments. These support services include, among other things, treasury, legal, digital, tax, insurance, centralized service center processes, other administrative functions and the maintenance of our closed landfills. Income from operations for "Corporate and Other" also includes costs associated with our long-term incentive program.

These costs increased in 2021, as compared with 2020, due to (i) higher incentive compensation costs; (ii) increased labor, support and integration costs following our acquisition of Advanced Disposal; (iii) strategic investments in our digital platform; (iv) increased health and welfare costs attributable to medical care activity generally returning to pre-pandemic levels from the lower levels experienced during 2020 and (v) charges pertaining to reserves for certain loss contingencies during 2021. These increases were partially offset by lower consulting, advisory and legal fees following the completion of our acquisition of Advanced Disposal in 2020 and changes in the measurement of our environmental remediation obligations and recovery assets in both 2020 and 2021.

The costs increased in 2020, as compared with 2019, due to (i) higher consulting, advisory and legal fees associated with our acquisition and integration of Advanced Disposal; (ii) strategic investments in our digital platform; (iii) incremental costs associated with the COVID-19 pandemic and (iv) higher long-term incentive compensation costs. These increased expenses were offset, in part, by (i) lower annual incentive compensation costs and (ii) lower litigation reserves.

(d) Intercompany operating revenues reflect each segment's total intercompany sales, including intercompany sales within a segment and between segments. Transactions within and between segments are generally made on a basis intended to reflect the market value of the service.

(e) For those items included in the determination of income from operations, the accounting policies of the segments are the same as those described in Note 2. In the fourth quarter of 2021, we discontinued certain allocations from our Corporate and Other segment to our Solid Waste operating segments and Other segment. Reclassifications have been made to our prior period information for comparability purposes.

(f) Includes non-cash items. Capital expenditures are reported in our reportable segments at the time they are recorded within the segments' property and equipment balances and, therefore, may include amounts that have been accrued but not yet paid.

(g) The reconciliation of total assets reported above to total assets in the Consolidated Balance Sheets as of December 31 is as follows (in millions):

	2021	2020	2019
Total assets, as reported above	$ 29,392	$ 29,649	$ 28,010
Elimination of intercompany investments and advances	(295)	(304)	(267)
Total assets, per Consolidated Balance Sheet	$ 29,097	$ 29,345	$ 27,743

(h) Goodwill is included within each segment's total assets. For segment reporting purposes, our material recovery facilities are included as a component of their respective Tiers and our recycling brokerage services are included as part of our "Other" operations. The following table presents changes in goodwill during the reported periods by segment (in millions):

	Solid Waste			
	East Tier	West Tier	Other	Total
Balance, December 31, 2019	$ 3,616	$ 2,846	$ 70	$ 6,532
Acquired goodwill	1,479	991	—	2,470
Divested goodwill	(3)	(12)	—	(15)
Foreign currency translation and other	9	(2)	—	7
Balance, December 31, 2020	$ 5,101	$ 3,823	$ 70	$ 8,994
Acquired goodwill (a)	27	15	34	76
Divested goodwill	(11)	(7)	(29)	(47)
Foreign currency translation and other	3	2	—	5
Balance, December 31, 2021	$ 5,120	$ 3,833	$ 75	$ 9,028

(a) Includes $26 million of post-closing acquisition adjustments related to our acquisition of Advanced Disposal.

The mix of operating revenues from our major lines of business for the year ended December 31 are as follows (in millions):

	2021	2020	2019
Commercial	$ 4,760	$ 4,102	$ 4,229
Residential	3,172	2,716	2,613
Industrial	3,210	2,770	2,916
Other collection	533	465	482
Total collection	11,675	10,053	10,240
Landfill	4,153	3,667	3,846
Transfer	2,072	1,855	1,820
Recycling	1,681	1,127	1,040
Other (a)	2,112	1,776	1,758
Intercompany (b)	(3,762)	(3,260)	(3,249)
Total	$ 17,931	$ 15,218	$ 15,455

(a) The "Other" line of business includes (i) certain services provided by our WMSBS business; (ii) our landfill gas-to-energy operations managed by our WM Renewable Energy business; (iii) certain services within our EES business, including our construction and remediation services and our services associated with the disposal of fly ash and (iv) certain other expanded service offerings and solutions. In addition, our "Other" line of business reflects the results of non-operating entities that provide financial assurance and self-insurance support for our Solid Waste business, net of intercompany activity. Revenue attributable to collection, landfill, transfer and recycling services provided by our "Other" businesses has been reflected as a component of the relevant line of business for purposes of presentation in this table.

(b) Intercompany revenues between lines of business are eliminated in the Consolidated Financial Statements included within this report.

Fluctuations in our operating results may be caused by many factors, including period-to-period changes in the relative contribution of revenue by each line of business, changes in commodity prices and general economic conditions. Our revenues and income from operations typically reflect seasonal patterns. Our operating revenues tend to be somewhat higher in summer months, primarily due to the higher construction and demolition waste volumes. The volumes of industrial and residential waste in certain regions where we operate also tend to increase during the summer months. Our second and third quarter revenues and results of operations typically reflect these seasonal trends.

Our 2020 operating results were negatively impacted by COVID-19, as volume declines began in March 2020 in our landfill, industrial and commercial collection businesses due to steps taken by national and local governments to slow the spread of the virus, including travel bans, prohibitions on group events and gatherings, shutdowns of certain businesses, curfews, shelter-in-place orders and recommendations to practice social distancing. Throughout 2021, our volumes recovered from the sharp decline experienced in 2020, with minimal impact from the resurgence in transmission of COVID-19 associated with recent virus variants, as communities and businesses remained open. However, the potential for future resurgence in transmission of COVID-19 and related business closures, due to virus variants or other pandemic conditions, could adversely impact our volumes and costs in the future.

Service disruptions caused by severe storms, extended periods of inclement weather or climate events can significantly affect the operating results of the geographic areas affected. On the other hand, certain destructive weather and climate conditions, such as wildfires in the Western U.S. and hurricanes that most often impact our operations in the Southern and Eastern U.S. during the second half of the year, can increase our revenues in the geographic areas affected as a result of the waste volumes generated by these events. While weather-related and other event driven special projects can boost revenues through additional work for a limited time, due to significant start-up costs and other factors, such revenue can generate earnings at comparatively lower margins.

Net operating revenues relating to operations in the U.S. and Canada for the year ended December 31 are as follows (in millions):

	2021	2020	2019
U.S.	$ 17,136	$ 14,505	$ 14,701
Canada	795	713	754
Total	$ 17,931	$ 15,218	$ 15,455

Property and equipment, net of accumulated depreciation and amortization, relating to operations in the U.S. and Canada for the year ended December 31 are as follows (in millions):

	2021	2020	2019
U.S.	$ 13,428	$ 13,168	$ 11,941
Canada	991	980	952
Total	$ 14,419	$ 14,148	$ 12,893

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.***

None.

Item 9A. ***Controls and Procedures.***

Effectiveness of Controls and Procedures

Our management, with the participation of our principal executive and financial officers, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended) in ensuring that the information required to be disclosed in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including ensuring that such information is accumulated and communicated to management (including the principal executive and financial officers) as appropriate to allow timely decisions regarding required disclosure. Based on such evaluation, our principal executive and financial officers have concluded that such disclosure controls and procedures were effective as of December 31, 2021 (the end of the period covered by this Annual Report on Form 10-K) at a reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Management of the Company, including the principal executive and financial officers, is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934, as amended. Our management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the 2013 framework in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Our internal controls are designed to provide reasonable assurance as to the reliability of our financial reporting and the preparation of the consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States and includes those policies and procedures that:

i. pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;

ii. provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

iii. provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The effectiveness of our internal control over financial reporting has been audited by Ernst & Young LLP, the independent registered public accounting firm that audited our consolidated financial statements, as stated in their report, which is included in Item 8 of this Annual Report on Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2021 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. ***Other Information.***

None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance.***

The information required by this Item is incorporated by reference to the sections entitled "Board of Directors" and "Executive Officers" in the Company's definitive Proxy Statement for its 2022 Annual Meeting of Stockholders (the "Proxy Statement"), to be held May 10, 2022. The Proxy Statement will be filed with the SEC within 120 days of the end of our fiscal year.

We have adopted a code of ethics that applies to our CEO, CFO and Chief Accounting Officer, as well as other officers, directors and employees of the Company. The code of ethics, entitled "Code of Conduct," is posted on our website at www.wm.com in the section "ESG — Corporate Governance" on the "Investors" page.

Item 11. ***Executive Compensation.***

The information required by this Item is incorporated herein by reference to the sections entitled "Board of Directors — Compensation Committee Report," "— Compensation Committee Interlocks and Insider Participation," "— Non-Employee Director Compensation," "Executive Compensation — Compensation Discussion and Analysis" and "— Executive Compensation Tables" in the Proxy Statement.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.***

The information required by this Item is incorporated herein by reference to the sections entitled "Executive Compensation — Executive Compensation Tables — Equity Compensation Plan Table," "Director and Officer Stock Ownership," and "Security Ownership of Certain Beneficial Owners" in the Proxy Statement.

Item 13. ***Certain Relationships and Related Transactions, and Director Independence.***

The information required by this Item is incorporated herein by reference to the sections entitled "Board of Directors — Related Party Transactions" and "— Independence of Board Members" in the Proxy Statement.

Item 14. ***Principal Accounting Fees and Services.***

The information required by this Item is incorporated herein by reference to the section entitled "Ratification of Independent Registered Public Accounting Firm — Independent Registered Public Accounting Firm Fee Information" in the Proxy Statement.

PART IV

Item 15. *Exhibits, Financial Statement Schedules.*

(a) (1) Consolidated Financial Statements:

Reports of Independent Registered Public Accounting Firm
Consolidated Balance Sheets as of December 31, 2021 and 2020
Consolidated Statements of Operations for the years ended December 31, 2021, 2020 and 2019
Consolidated Statements of Comprehensive Income for the years ended December 31, 2021, 2020 and 2019
Consolidated Statements of Cash Flows for the years ended December 31, 2021, 2020 and 2019
Consolidated Statements of Changes in Equity for the years ended December 31, 2021, 2020 and 2019
Notes to Consolidated Financial Statements

(a) (2) Consolidated Financial Statement Schedules:

All schedules have been omitted because the required information is not significant or is included in the financial statements or notes thereto, or is not applicable.

(a) (3) Exhibits:

Exhibit No.		Description
3.1	—	Third Restated Certificate of Incorporation of Waste Management, Inc. [incorporated by reference to Exhibit 3.1 to Form 10-Q for the quarter ended June 30, 2010].
3.2	—	Amended and Restated By-laws of Waste Management, Inc. [incorporated by reference to Exhibit 3.2 to Form 8-K dated November 17, 2020].
4.1	—	Specimen Stock Certificate [incorporated by reference to Exhibit 4.1 to Form 10-K for the year ended December 31, 1998].
4.2	—	Third Restated Certificate of Incorporation of Waste Management Holdings, Inc. [incorporated by reference to Exhibit 4.2 to Form 10-K for the year ended December 31, 2014].
4.3	—	Amended and Restated By-laws of Waste Management Holdings, Inc. [incorporated by reference to Exhibit 4.3 to Form 10-Q for the quarter ended June 30, 2014].
4.4	—	Indenture for Subordinated Debt Securities dated February 3, 1997, among the Registrant and The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association), as trustee [incorporated by reference to Exhibit 4.1 to Form 8-K dated February 7, 1997].
4.5	—	Indenture for Senior Debt Securities dated September 10, 1997, among the Registrant and The Bank of New York Mellon Trust Company, N.A. (the current successor to Texas Commerce Bank National Association), as trustee [incorporated by reference to Exhibit 4.1 to Form 8-K dated September 10, 1997].
4.6	—	Description of Waste Management, Inc.'s Common Stock [incorporated by reference to Exhibit 4.9 to Form 10-K for the year ended December 31, 2019].
4.7*	—	Schedule of Officers' Certificates delivered pursuant to Section 301 of the Indenture dated September 10, 1997 establishing the terms and form of Waste Management, Inc.'s Senior Notes. Waste Management and its subsidiaries are parties to debt instruments that have not been filed with the SEC under which the total amount of securities authorized under any single instrument does not exceed 10% of the total assets of Waste Management and its subsidiaries on a consolidated basis. Pursuant to paragraph 4(iii)(A) of Item 601(b) of Regulation S-K, Waste Management agrees to furnish a copy of such instruments to the SEC upon request.
4.8	—	Officers' Certificate delivered pursuant to Section 301 of the Indenture dated September 10, 1997 establishing the terms and form of the 2.00% Senior Notes due 2029 [incorporated by reference to Exhibit 4.1 to Form 10-Q for the quarter ended June 30, 2021].
4.9	—	Guarantee Agreement by Waste Management Holdings, Inc. in favor of The Bank of New York Mellon Trust Company, N.A., as Trustee for the holders of the 2.00% Senior Notes due 2029 [incorporated by reference to Exhibit 4.3 to Form 10-Q for the quarter ended June 30, 2021].

10.1†	—	2014 Stock Incentive Plan [incorporated by reference to Exhibit 10.1 to Form 8-K dated May 13, 2014].
10.2†	—	First Amendment to 2014 Stock Incentive Plan [incorporated by reference to Exhibit 10.2 to Form 8-K dated May 12, 2020].
10.3†	—	2009 Stock Incentive Plan [incorporated by reference to Appendix B to the Proxy Statement on Schedule 14A filed March 25, 2009].
10.4†	—	2005 Annual Incentive Plan [incorporated by reference to Appendix D to the Proxy Statement on Schedule 14A filed April 8, 2004].
10.5†	—	Waste Management, Inc. Employee Stock Purchase Plan (As Amended and Restated effective May 12, 2020) [incorporated by reference to Exhibit 10.1 to Form 8-K dated May 12, 2020].
10.6†	—	Waste Management, Inc. 409A Deferral Savings Plan as Amended and Restated effective January 1, 2014 [incorporated by reference to Exhibit 10.2 to Form 10-Q for the quarter ended March 31, 2014].
10.7	—	$3.5 Billion Fifth Amended and Restated Revolving Credit Agreement dated as of November 7, 2019 by and among Waste Management, Inc., Waste Management of Canada Corporation, WM Quebec Inc. and Waste Management Holdings, Inc., certain banks party thereto, and Bank of America, N.A., as administrative agent [incorporated by reference to Exhibit 10.1 to Form 8-K dated November 7, 2019].
10.8	—	Commercial Paper Dealer Agreement, substantially in the form as executed with each of Mizuho Securities USA Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, and J.P. Morgan Securities LLC, as Dealer, dated August 22, 2016 [incorporated by reference to Exhibit 10.11 to Form 10-K for the year ended December 31, 2016].
10.9	—	Commercial Paper Issuing and Paying Agent Agreement between Waste Management, Inc. and Bank of America, National Association dated August 15, 2016 [incorporated by reference to Exhibit 10.12 to Form 10-K for the year ended December 31, 2016].
10.10†	—	First Amended and Restated Employment Agreement between USA Waste-Management Resources, LLC and James C. Fish, Jr. dated December 22, 2017 [incorporated by reference to Exhibit 10.2 to Form 8-K dated December 22, 2017].
10.11†	—	Employment Agreement between USA Waste-Management Resources, LLC and Devina A. Rankin dated December 22, 2017 [incorporated by reference to Exhibit 10.3 to Form 8-K dated December 22, 2017].
10.12†	—	First Amended and Restated Employment Agreement between USA Waste-Management Resources, LLC and John J. Morris, Jr. [incorporated by reference to Exhibit 10.4 to Form 8-K dated December 22, 2017].
10.13†	—	Employment Agreement between USA Waste-Management Resources, LLC and Charles C. Boettcher dated December 22, 2017 [incorporated by reference to Exhibit 10.23 to Form 10-K for the year ended December 31, 2017].
10.14†	—	Form of Director and Executive Officer Indemnity Agreement [incorporated by reference to Exhibit 10.43 to Form 10-K for the year ended December 31, 2012].
10.15†	—	Waste Management Holdings, Inc. Executive Severance Plan [incorporated by reference to Exhibit 10.1 to Form 8-K dated December 22, 2017].
10.16†	—	Form of 2019 Long Term Incentive Compensation Award Agreement for Senior Leadership Team [incorporated by reference to Exhibit 10.1 to Form 8-K dated February 19, 2019].
10.17†	—	Form of 2020 Long Term Incentive Compensation Award Agreement for Senior Leadership Team [incorporated by reference to Exhibit 10.1 to Form 8-K dated February 19, 2020].
10.18†	—	Form of 2021 Long Term Incentive Compensation Award Agreement for Senior Leadership Team [incorporated by reference to Exhibit 10.1 to Form 8-K dated February 23, 2021].
10.19†*		Form of 2021 Long Term Incentive Compensation RSU Award Agreement.
21.1*	—	Subsidiaries of the Registrant.
22.1*	—	Guarantor Subsidiary.
23.1*	—	Consent of Independent Registered Public Accounting Firm.
31.1*	—	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended, of James C. Fish, Jr., President and Chief Executive Officer.
31.2*	—	Certification Pursuant to Rule 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended, of Devina A. Rankin, Executive Vice President and Chief Financial Officer.
32.1**	—	Certification Pursuant to 18 U.S.C. §1350 of James C. Fish, Jr., President and Chief Executive Officer.

32.2**	—	Certification Pursuant to 18 U.S.C. §1350 of Devina A. Rankin, Executive Vice President and Chief Financial Officer.
95*	—	Mine Safety Disclosures.
101.INS*	—	Inline XBRL Instance.
101.SCH*	—	Inline XBRL Taxonomy Extension Schema.
101.CAL*	—	Inline XBRL Taxonomy Extension Calculation.
101.LAB*	—	Inline XBRL Taxonomy Extension Labels.
101.PRE*	—	Inline XBRL Taxonomy Extension Presentation.
101.DEF*	—	Inline XBRL Taxonomy Extension Definition.
104*	—	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Filed herewith.
** Furnished herewith.
† Denotes management contract or compensatory plan or arrangement.

Item 16. ***Form 10-K Summary.***

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

WASTE MANAGEMENT, INC.

By: /s/ JAMES C. FISH, JR.
James C. Fish, Jr.
President, Chief Executive Officer and Director

Date: February 15, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ JAMES C. FISH, JR. James C. Fish, Jr.	President, Chief Executive Officer and Director (Principal Executive Officer)	February 15, 2022
/s/ DEVINA A. RANKIN Devina A. Rankin	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 15, 2022
/s/ LESLIE K. NAGY Leslie K. Nagy	Vice President and Chief Accounting Officer (Principal Accounting Officer)	February 15, 2022
/s/ ANDRÉS R. GLUSKI Andrés R. Gluski	Director	February 15, 2022
/s/ VICTORIA M. HOLT Victoria M. Holt	Director	February 15, 2022
/s/ KATHLEEN M. MAZZARELLA Kathleen M. Mazzarella	Director	February 15, 2022
/s/ SEAN E. MENKE Sean E. Menke	Director	February 15, 2022
/s/ WILLIAM B. PLUMMER William B. Plummer	Director	February 15, 2022
/s/ JOHN C. POPE John C. Pope	Director	February 15, 2022
/s/ MARYROSE T. SYLVESTER Maryrose T. Sylvester	Director	February 15, 2022
/s/ THOMAS H. WEIDEMEYER Thomas H. Weidemeyer	Chairman of the Board and Director	February 15, 2022

Corporate Information

BOARD OF DIRECTORS

JAMES C. FISH, JR.
President and Chief Executive Officer
Waste Management, Inc.

ANDRÉS R. GLUSKI (A, C)
President and Chief Executive Officer
The AES Corporation

VICTORIA M. HOLT (A, N)
Former President
and Chief Executive Officer
Proto Labs, Inc.

KATHLEEN M. MAZZARELLA (C, N)
Chairman, President and
Chief Executive Officer
Graybar Electric Company, Inc.

SEAN E. MENKE (A)
Chief Executive Officer
Sabre Corporation

WILLIAM B. PLUMMER (A, C)
Former Executive Vice President
and Chief Financial Officer
United Rentals, Inc.

JOHN C. POPE (C, N)
Chairman
PFI Group

MARYROSE T. SYLVESTER (C)
Former U.S. Managing Director
and U.S. Head of Electrification
ABB Ltd.

THOMAS H. WEIDEMEYER (A, C, N)
Non-Executive Chairman of the Board,
Former Senior Vice President
and Chief Operating Officer
United Parcel Service, Inc.

(A) Audit Committee
(C) Management Development and Compensation Committee
(N) Nominating and Governance Committee

OFFICERS

JAMES C. FISH, JR.
President and Chief Executive Officer

STEVEN R. BATCHELOR
Senior Vice President, Operations

CHARLES C. BOETTCHER
Executive Vice President, Corporate
Development and Chief Legal Officer

RAFAEL E. CARRASCO
Senior Vice President, Operations

TARA J. HEMMER
Senior Vice President and Chief
Sustainability Officer

JOHN J. MORRIS, JR.
Executive Vice President and
Chief Operating Officer

TAMLA D. OATES-FORNEY
Senior Vice President and
Chief People Officer

DEVINA A. RANKIN
Executive Vice President and
Chief Financial Officer

NIKOLAJ H. SJOQVIST
Senior Vice President and
Chief Digital Officer

MICHAEL J. WATSON
Senior Vice President and
Chief Customer Officer

JEFF R. BENNETT
Assistant Treasurer

MARK A. LOCKETT
Vice President, Tax

LESLIE K. NAGY
Vice President and
Chief Accounting Officer

DAVID L. REED
Vice President and Treasurer

CHARLES S. SCHWAGER
Vice President and
Chief Compliance and Ethics Officer

COURTNEY A. TIPPY
Vice President and Corporate Secretary

CORPORATE HEADQUARTERS

Waste Management, Inc.
800 Capitol Street, Suite 3000
Houston, Texas 77002
Telephone: (713) 512-6200
Facsimile: (713) 512-6299

WEB SITE

www.wm.com

INVESTOR RELATIONS

Security analysts, investment professionals, and shareholders should direct inquiries to Investor Relations at the corporate address or call (713) 265-1656.

ANNUAL MEETING

We will be holding a virtual annual meeting of the stockholders of the Company this year. The virtual annual meeting is scheduled to be held at 11:00 a.m. CT on May 10, 2022 at: www.virtualshareholdermeeting.com/WM2022

INDEPENDENT AUDITORS

Ernst & Young LLP
5 Houston Center, Suite 2400
1401 McKinney Street
Houston, Texas 77010
(713) 750-1500

COMPANY STOCK

The Company's common stock is traded on the New York Stock Exchange (NYSE) under the symbol "WM." The number of holders of record of common stock based on the transfer records of the Company at March 10, 2022 was 8,096.
Based on security position listings, the Company believes that, as of March 7, 2022, it had approximately 1,139,587 beneficial owners.

TRANSFER AGENT AND REGISTRAR

Computershare
Jersey City, New Jersey
(800) 969-1190

800 Capitol Street - Suite 3000 - Houston, Texas 77002
www.wm.com