#### The Communities We Serve.

**OUR SUSTAINABILITY INITIATIVES** 



#### **ABOUT WASTE CONNECTIONS**

Waste Connections is an integrated solid waste services company that provides waste collection, transfer, disposal and recycling services in mostly exclusive and secondary markets in the United States and Canada. Through its R360 Environmental Solutions subsidiary, Waste Connections is also a leading provider of non-hazardous oilfield waste treatment, recovery and disposal services in several of the most active natural resource producing areas in the United States, including the Permian, Bakken and Eagle Ford Basins. Waste Connections serves more than seven million residential, commercial, industrial, and exploration and production customers. The Company also provides intermodal services for the movement of cargo and solid waste containers in the Pacific Northwest.

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#### **OUR PURPOSE**

Honoring our commitments provides our stakeholders peace of mind and establishes us as the premier waste services company in the markets we serve. This creates a safe and rewarding environment for our employees while protecting the health and welfare of the communities we serve, thereby increasing value for our shareholders.

#### Who we serve.



**OUR PEOPLE** 

The well-being and development of our employees.



OUR ENVIRONMENT

The public areas we offer our wide-ranging list of services.



**OUR GOVERNANCE** 

The governance and ethics of our Company.

#### LETTER FROM THE CHAIRMAN



hank you for your interest in sustainability initiatives at Waste Connections. We recognize the importance to our stakeholders of our continuing efforts to minimize our impact on the environment by:

- :: encouraging materials recycling and reuse;
- :: using waste to generate clean, renewable energy;
- :: reducing our carbon footprint and use of fossil fuels; and
- :: exploring alternatives to landfill disposal.

But Waste Connections' sustainability efforts extend beyond the environment; we also measure the positive impacts we have on the communities we serve, the development and welfare of our employees, the financial health of our Company, and the returns to our shareholders.

As a leading environmental services company, sustainability is not a new concept for us. Over the years, we have been recycling a significant portion of the waste stream, with diversion rates in some markets in excess of 70%. Our recycling efforts recover valuable materials

for reuse, and include the composting of organic materials for reuse as a soil amendment. We also deploy anaerobic digester technology to process organics to power homes. When requested, we work to bring these programs and technologies to other communities and industrial customers we serve throughout the U.S. and Canada.

In addition to recycling and recovery, we also harvest methane gas from landfills to generate renewable energy to power homes, small industry and our fleet. We deploy route optimization software, retrofit existing fleet, utilize alternative fuels and explore new technologies, such as electric powertrains, to reduce fuel consumption and emissions, lowering our overall carbon footprint. We also construct environmental enhancements to certain of our sites through the creation of wetlands and public trails. These efforts are fundamental to a sustainable business model and the success of our Company.

Everything we do today is with an eye towards the future. We constantly monitor and evaluate







#### **VISION OF THE FUTURE**

Our goal is to create an environment where self directed, empowered employees strive to consistently fulfill our constituent commitments and seek to create positive impacts through interactions with customers, communities, and fellow employees, always relying on our Operating Values as the foundation for our existence.

new technologies and programs that can enhance our commitment to the environment and improve our competitive positioning. Within our industry, these changes have historically been evolutionary in nature, but there is an enormous effort currently being made in alternative technologies to reduce landfill disposal, reduce greenhouse gas emissions and harness bio-fuels.

We recognize that our employees identify and lead many of our sustainability efforts at a local level. As a result, development and welfare of our employees is critical. Our corporate culture is centered on the principles of Servant Leadership, which hold management accountable to employees. We analyze and track our success in improving Servant Leadership scores, reducing employee turnover, improving safety performance, and providing fair compensation and attractive employee benefits. We also dedicate a significant amount of management time and resources to leadership training and personnel development to improve the promotability and career paths of our employees.

We owe our success to the communities we serve. Our employees support more than a thousand local organizations, and we back their efforts with financial support for many of these groups. We accept the responsibility we have to increase corporate giving and introduce or broaden sustainability efforts as our Company expands.

Environmental, organizational and financial sustainability initiatives have been key components of our success since we were founded in 1997. We remain committed to growing and expanding these efforts as our industry and technology continue to evolve.

Ronald J. Mittelstaedt
Chief Executive Officer and Chairman

#### SUMMARY PERFORMANCE STATISTICS<sup>1</sup>

	2016	2017
Health and Safety		
Employee Hours	28,389,104	37,911,385
Reportable Incident Rate <sup>2</sup>	22.7	17.4
Total Recordable Injury Rate (TRIR)	3.6	3.4
People		
Total Employees as of Year End	14,671	15,283
Turnover	26.6%	24.4%
Training/Leadership Development		
# of Sessions	81	74
Employees in Training Sessions	1,808	2,256
% of Total Employees	12.3%	14.8%
Financial Statistics (\$000s USD)		
Revenue	\$ 3,375,863	\$ 4,630,488
Net Cash Provided by Operating Activities	\$ 795,312	\$ 1,187,260
Facilities		
Hauling Operations	261	261
Landfills	93	90
Transfer Stations	135	146
Intermodal Facilities	7	6
Recycling Facilities	71	66
E&P Liquid Waste Injection Wells	22	22
E&P Waste Treatment and Oil Recovery Facilities	17	19
Total	606	610







	2016	2017
eet .		
Total Trucks	12,403	12,765
Routed Trucks	8,186	9,069
CNG Trucks	396	1,076
Routed CNG Trucks as % of Routed Trucks	4.6%	11.39
ndfill Tons (tons per year)		
Municipal Solid Waste	18,946,681	24,297,387
Special Waste	8,638,076	11,225,829
C&D	4,677,746	5,635,951
Total	32,262,503	41,159,167
cycled Commodities (tons per year) Old Corrugated Cardboard Old Newspaper	318,717 70,223	463,687 121,030
Mixed/Other Paper	132,109	
Glass		150,023
Glass	57,752	150,023 90,038
Metal	57,752 31,313	
		90,038
Metal	31,313	90,038 40,571
Metal Aluminum	31,313 2,668	90,038 40,571 3,354
Metal Aluminum Plastics	31,313 2,668 26,794	90,038 40,571 3,354 44,750
Metal Aluminum Plastics Commingled/Other	31,313 2,668 26,794 585,509	90,038 40,571 3,354 44,750 582,765
Metal Aluminum Plastics Commingled/Other Total	31,313 2,668 26,794 585,509	90,038 40,571 3,354 44,750 582,765
Metal Aluminum Plastics Commingled/Other Total  Indfill Gas Recovery Systems	31,313 2,668 26,794 585,509 1,225,085	90,038 40,571 3,354 44,750 582,765 1,496,218

<sup>&</sup>lt;sup>1</sup>All data provided here has been subject to internal review and is believed to be correct at the time of reporting. No third party assessment of the data was obtained. <sup>2</sup>12-month rolling incident rate, defined as the number of all reportable incidents per 200,000 employee hours worked, preventable and non-preventable.









**OUR OPERATING VALUES** 

#### Safety

We strive to assure complete safety of our employees, our customers and the public in all of our operations. Protection from accident or injury is paramount in all we do.

#### Integrity

We define integrity as "saying what you will do and then doing it." We keep our promises to our customers, our employees and our shareholders. Do the right thing, at the right time, for the right reason.

#### **Customer Service**

We provide our customers the best possible service in a courteous, effective manner, showing respect for those we are fortunate to serve.

#### To Be A Great Place To Work

We maintain a growth culture where our employees can maximize their potential personally and professionally. Our objective is to provide an environment where people enjoy what they do and take pride in their work. We wish to embody a work hard, play harder culture.

#### To Be The Premier Waste Services Company In The U.S. and Canada

We continue to provide superior returns, remain environmentally responsible, and grow in a disciplined way, deploying resources intelligently and benefiting communities we live in. We remain a "different breed".

# CULTURE MATTERS

#### STRATEGY + CULTURE = RESULTS

We believe the superior results we have achieved since our founding in 1997 demonstrate what our culture and these values have created: industry differentiation, disciplined strategy and capital deployment, commitment to execution, and accountability to multiple stakeholders.

ur differentiated market selection strategy has produced superior financial results and shareholder returns. While our strategy may position us for success, it's our culture that delivers it. Our approach to business starts with our Operating Values. We also have adopted the principles of Servant Leadership, which flips the "old school" hierarchical managerial style on its head. Put simply, our managers are trained to help their employees become more successful at work and in their lives. Servant Leadership ensures that our managers place customers and employees first, thereby

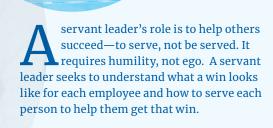
increasing customer retention and reducing employee turnover. Servant Leadership holds management accountable to employees, rather than solely holding employees accountable. Our managers are measured not only by the financial performance of their operations, but also by the feedback of their employees on management's embodiment of these principles. Benefits already realized from the adoption of Servant Leadership include an increase in our employees' satisfaction with their jobs, reduced employee turnover and a decrease in accident frequency.







## SERVANT LEADERSHIP



Our leadership development efforts include multi-day servant leadership development sessions, district management training, dozens of varying leadership webinar topics, and other safety, sales, maintenance, productivity and financial training courses serving every employee level throughout the Company.

### SAFETY IS OUR #1 OPERATING VALUE.

We believe that safety is the responsibility of each and every employee; it is ingrained in our culture. Our success has been driven by the development of our managers and supervisors into servant leaders and our ability to instill this commitment-based, safety-driven culture across our broader employee base. Servant leaders are accountable to employees for each employee's success at work and beyond; safety is an integral component of this commitment. The strong relationship between servant leader and employee enables us to utilize observations and tools to develop an employee risk-profile ranking and to facilitate effective communication and behavior coaching. This behavior-based approach to safety, when applied throughout larger acquisitions completed in 2016 and 2017, drove a more than 60% reduction in incident frequency within 12 months.

Put simply, the focus on safety is just one of the ways that we invest in our most important asset—our people.



















### IN OUR COMMUNITY.

#### **BIKE BUILD**

Each year culminates with a Christmas bike-building drive where employees and their families and friends assemble thousands of bicycles Company-wide to donate to local charities, first responders and military bases for distribution to deserving youth. We've donated an estimated 50,000 bikes since inception of this program.

#### **GOLF CLASSIC FOR KIDS**

We host a charity golf event that now raises more than \$1,000,000 each year for donations to charities that support at-risk youth and their families. Over the past 10 years, our golf classics have raised almost \$5,000,000 for such charities.

#### **EMPLOYEE RELIEF FUND**

In 2017, we created the Waste Connections
Employee Relief Fund to help employees and
their immediate families who have experienced
significant financial hardship following a natural
disaster or other catastrophic events. Through
contributions from Waste Connections, our
employees and vendors, we assist impacted
employees by helping to pay for essential living
expenses, such as food, clothing, utilities,
temporary housing, property repairs, and
other basic necessities.

#### **GIVING FOR SUSTAINABILITY**

Waste Connections aligns its major financial contributions with its goal to further advance environmental sustainability. For example, our first major grant helped establish the Global Waste Research Institute ("GWRI"), developed in conjunction with California Polytechnic State University, San Luis Obispo. The GWRI's mission is to advance state-of-the-art research and development of sustainable technologies and practices to more effectively manage existing and emerging wastes and byproducts.

#### **GIVING BACK.**

At Waste Connections, we measure our success by the continuing, positive impact we have within our local communities. The Company and its employees support more than a thousand organizations through direct contributions, volunteering or fundraising — a few of which are listed here.

Alzheimer's Association

Alzheimer Society of Hamilton Halton

**American Cancer Society** 

American Diabetes Association

American Heart Association

**American Lung Association** 

**American Red Cross** 

Appalachian Children's Home

Association québécoise

de prévention du suicide

Autism Awareness Canada

**Autism Speaks** 

Big Brothers Big Sisters

**Boys and Girls Clubs** 

**Brantford Community Food Bank** 

Canadian Association of Chiefs of Police

Canadian Diabetes Association

Canadian National Autism Foundation

CASA

Cayuga Seneca Community Center

**CEOs Against Cancer** 

Child & Family Center

Children's Miracle Network Hospitals

Children's Wish Foundation

Columbia Pacific Food Bank

Daybreak Youth Services

**Disabled American Veterans** 

Elm Grove Elementary School

Feed My Starving Children

Food Bank of Eastern Michigan

Fort Vancouver National Trust

Girl Power 2 Cure

Habitat for Humanity

Hamilton-Burlington SPCA

Helping Hands House

Home with Heroes

Hope House

Illinois Special Olympics

Interfaith of The Woodlands

Juvenile Diabetes Research

Foundation

Kids 'n Kinship

Leukemia & Lymphoma Society

Littleton Firefighter Association

Love Fosters Hope



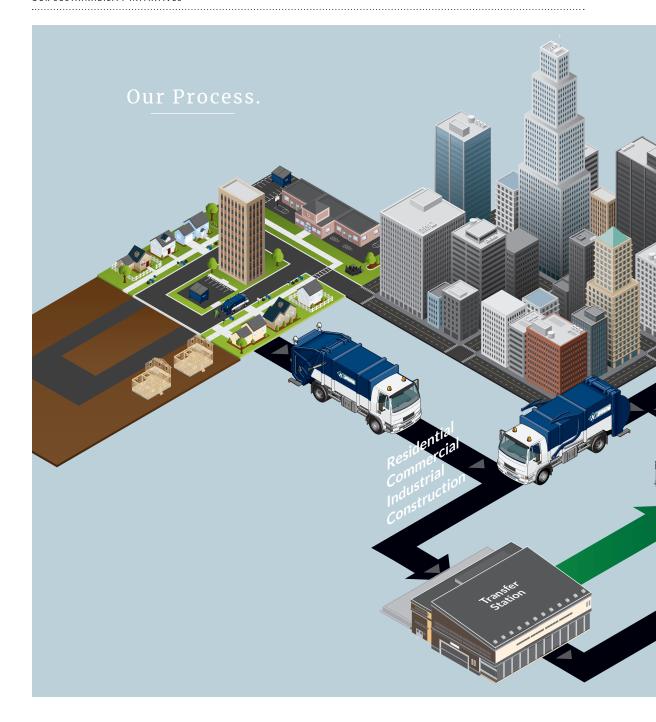




Make-a-Wish Foundation
March of Dimes
Meals on Wheels
Mission of Hope
Montgomery County Food Bank
Montgomery County Youth Services
Multiple Sclerosis Society of Canada
Muscular Dystrophy Association
National Children's Cancer Society
National Kidney Foundation
National Multiple Sclerosis Society
National Wildlife Federation
Northwest Association
for Blind Athletes
Open Door Mission

Panther Creek Inspiration Ranch Pink Lemonade Project Relay for Life River City Youth Foundation **Roger Clemens Foundation** Ronald McDonald House Charities Save the Children Canada Seneca Falls Rotary Six Nations' Christmas Baskets **Special Olympics** St. Jude Children's Research Hospital Susan G. Komen Take Steps for Crohn's and Colitis The Marfan Foundation The Salvation Army **SMART** The Star of Hope

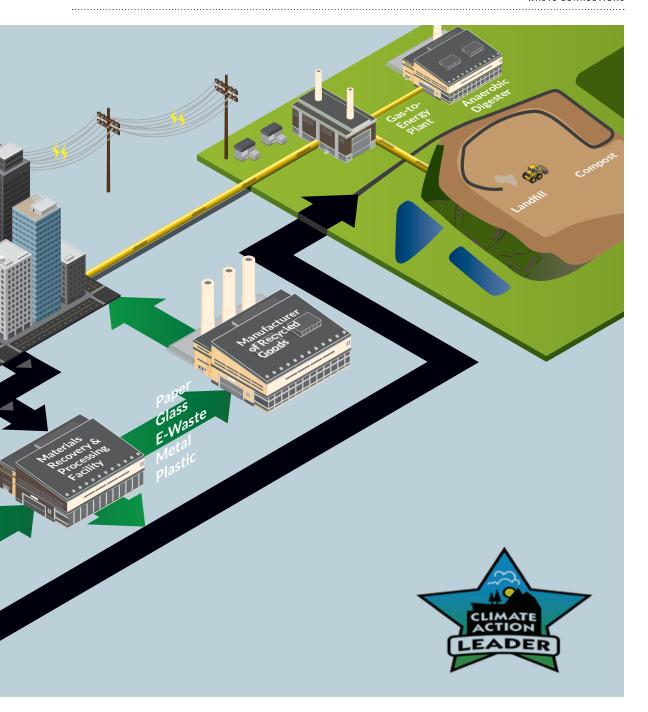
Tim Horton Children's Foundation
Toby Keith Foundation
Toys for Tots
Tri-City Youth & Family Center
United Way
Veterans Legal Initiative
Veterans Miracle Center
WayOut Kids
Women in Need
Working Against Violence
Wounded Warriors in Action
Wreaths Across America











## WE RECYCLE OR DIVERT OVER 50% OF OUR COLLECTED WASTE VOLUMES IN MANY MARKETS, IN SOME CASES OVER 70%.

Recycling has been a well established component of the municipal solid waste system for over 30 years. When requested, we are deploying this recycling expertise in many of our markets across the U.S. and Canada, often for the first time, to further encourage materials reuse and waste minimization. In certain markets, we have introduced a loyalty and rewards program to encourage customers either to begin recycling or to increase their current recycling efforts.

To improve the purity and resulting value of recycled materials, we deploy new technology, such as optical sorting machines, and work to educate our customers to improve separation at the originating source.



## WE SUPPORT ZERO WASTE INITIATIVES.



The composting and reuse of green or yard waste and food waste are critical components for any community's march to a Zero Waste goal. We continue to increase our composting efforts through investments to expand capacity at existing operations, through the acquisition of new facilities and the deployment of new technologies, such as anaerobic digesters.

We also work with our industrial customers in their environmental stewardship efforts to reduce waste sent to landfills. By increasing the number of zero-waste-to-landfill facilities, our customers reduce waste disposal costs and emissions, while potentially increasing their income from recovered waste streams. Our easy-to-use reporting and analytics tool, Recycle 360°, enables our customers to develop waste management plans and track ongoing performance against waste reduction and recycling targets.













WE DEPLOY GAS RECOVERY SYSTEMS, INCLUDING ONE OF THE LARGEST SUCH RECOVERY PLANTS IN NORTH AMERICA, TO PROVIDE RENEWABLE ENERGY TO MANY OF THE COMMUNITIES WE SERVE.

Solid waste landfills over time generate a greenhouse gas, methane, which can be collected and converted into a valuable source of clean energy. We deploy gas recovery systems, including one of the largest such recovery plants in North America, to collect methane that is then used to generate electricity for local households, fuel local industrial plants, power alternative fueled vehicles, or qualify for carbon emission and renewable fuel credits.









## REDUCING OUR FLEET'S CARBON FOOTPRINT.

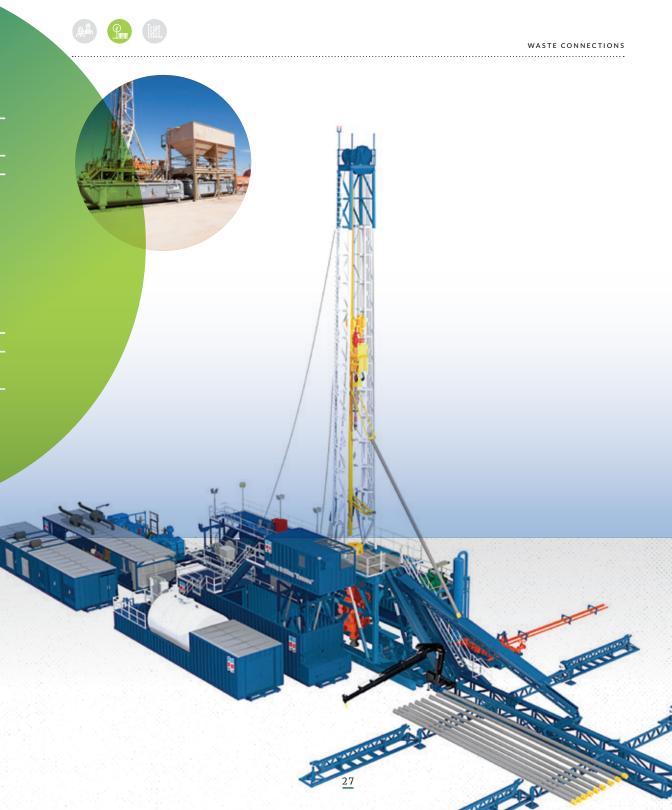
As a route-based business, the majority of our carbon footprint is linked to our fleet. Vehicles that use alternative fuels (electric, CNG, LNG, Bio-diesel) can reduce fleet emissions and our dependency on foreign oil. We have deployed alternative fueled vehicles in many markets and plan on directing a continuing portion of our future fleet capital on such vehicles. However, a convenient and reliable fueling infrastructure is critical to how fast we can convert our fleet. So we have either built or partnered with third parties to facilitate investment in local fueling infrastructures.

In addition, we seek to reduce our fleet emissions and consumption of fuel and petroleum-based products by replacing older trucks with newer more efficient trucks, deploying tablets and route optimization software to minimize driving time, utilizing a network of transfer stations to consolidate waste onto fewer trucks and minimize drive time, installing controls to minimize idling time, switching to synthetic motor oils with longer replacement intervals, and reducing emissions by installing more advanced engine filters.



#### HELPING TO TRANSFORM OILFIELD WASTE.

Today's exploration and production environment presents new technical, regulatory and economic challenges that raise the stakes for how waste is managed. We help oil and gas operators better manage drilling fluids, drill cuttings, produced water and other non-hazardous waste. Our processes and technologies transform oilfield waste into usable and highly marketable commodities, such as reclaimed oil, R3 Roadbase, recycled produced waters and reusable drilling fluids.



#### **GOVERNANCE AND ETHICS**

s part of our ongoing commitment to sound principles of corporate governance, we have adopted, among other measures, a Corporate Governance Guidelines and Board Charter as well as charters for the committees of the Board of Directors to promote the effective functioning of our Board of Directors and its committees, to promote the interests of the Company as a whole and to ensure a common set of expectations concerning how our Board of Directors, its committees and management should perform their respective functions.

Highlights of what we believe exemplify our adherence to sound principles of corporate governance include:

- :: Directors are elected individually;
- :: Majority voting policy for the election of our Directors;
- :: Policy to separate CEO and Chairman of the Board of Directors, or Board Chairman, positions should our current CEO no longer serve as both;
- :: Having a strong, Lead Independent Director serve on the Board of Directors:
- :: Annual Board of Directors and committee evaluation processes;

- :: Board of Directors' oversight of risk;
- :: Robust risk management program related to compensation;
- :: Share ownership requirement for Directors and corporate officers;
- :: Regular executive sessions of only independent directors; and
- :: Director retirement policy.







Our Board of Directors has four standing committees: the Executive Committee, the Audit Committee, the Compensation Committee, and the Nominating and Corporate Governance Committee. Except for the Executive Committee, the committees are composed entirely of independent, non-employee directors.

#### The Board of Directors' Role in Oversight of Risk

The Board of Directors and its committees have an active role in overseeing management of the Company's risks. The Board of Directors regularly reviews information from members of senior management regarding the Company's financial performance, balance sheet, credit profile and liquidity, as well as the risks associated with each. The Audit Committee receives reports from members of senior and regional management on areas of material risk to the Company, including market-specific, operational, legal, information technology, regulatory and strategic risks. The Audit Committee also oversees management of financial, financial reporting and internal controls risk. The Compensation Committee assesses and

monitors risks relating to the Company's corporate officer compensation policies and practices. The Nominating and Corporate Governance Committee is responsible for overseeing the management of risks associated with the independence of the Board of Directors and potential conflicts of interest.

#### Communications with the Board

Shareholders and other interested parties may communicate with the Board of Directors generally, with the non-employee directors as a group or with a specific director at any time by writing to the Board of Directors, the non-employee directors or a specific director, care of the Company's Secretary, at our principal administrative offices located at Waste Connections, Inc., 3 Waterway Square Place, Suite 110, The Woodlands, Texas 77380.

#### Shareholder Outreach

We believe that our relationship with and accountability to multiple stakeholders are critical to our success. Engaging with our shareholders helps us to understand how they

## Our Code of Conduct and Ethics details Company principles to guide employee decision-making in many areas.

view us, to set goals and expectations for our performance, and to identify emerging issues that may affect our strategies, corporate governance, compensation practices or other aspects of our operations. Our shareholder and investor outreach includes investor road shows, analyst meetings and investor conferences. We also communicate with shareholders and other interested parties through various media, including our annual and quarterly reports, proxy statement and other SEC and Canadian securities filings, press releases and our website. Our conference calls for quarterly earnings releases and major corporate developments are open to all. These calls are available in real time and are also archived. as webcasts on our website. Our CEO and Board Chairman, President, Chief Financial Officer and other senior management also regularly meet with investors to discuss our strategy, financial and business performance and to update investors on key developments.

#### Code of Conduct and Ethics

We have also adopted a Code of Conduct and Ethics that applies to all of our directors, officers and employees. Our Code of Conduct and Ethics details Company principles to guide employee decision-making in many areas, including:

#### :: Conflicts of Interest:

No officer, director or employee may be subject to influences, interests or relationships that conflict with the best interests of the Company.

#### :: Full, Fair and Accurate Disclosure:

It is the Company's policy that the information in its public communications, including its SEC filings and filings with the Canadian Securities Administrators, be full, fair, accurate, timely and understandable.

#### $\hbox{\hbox{$::$}$ Compliance with Laws, Rules and Regulations:}\\$

It is the Company's policy to comply with all laws, rules and regulations applicable to the Company and its operations. The Company's strict compliance policy also extends to all other applicable laws and regulations, including compliance with the U.S. Foreign Corrupt Practices Act (FCPA), the Canadian Corruption of Foreign Public Officials Act (CFPOA), and other applicable anti-corruption laws; antitrust laws; tax laws; environmental and safety regulations; equal opportunity; non-discrimination and fair







## We believe that our relationships with and accountability to multiple stakeholders are critical to our success.

employment; and, foreign asset control regulations.

#### :: Prohibited Accounting Practices:

The Company's policy is to make and keep books, records and accounts that accurately and fairly reflect the transactions of the Company.

#### :: Reporting Illegal or Unethical Behavior:

All officers, directors and employees should promptly report to senior management all actual or potential illegal or unethical behavior of Company personnel that they observe. The Company encourages and expects full and open communication with senior management even when it appears that less candor may be desirable to protect the Company or members of management.

#### :: Compliance and Discipline:

Violations of this Code by officers, directors or employees will result in disciplinary action that may include termination, referral for criminal prosecution and reimbursement to the Company for any losses or damages resulting from the violation.

:: Fair Dealing; Moral and Ethical Standards: Each officer, director and employee must endeavor to deal fairly with the Company's customers, suppliers, competitors and employees and not to take unfair advantage of anyone through manipulation, concealment, abuse of privileged or misappropriated confidential information, misrepresentation of material facts or any other unfair dealing practice. More generally, each officer, director and employee must adhere to and comply with the highest moral and ethical standards of our society in conducting business on behalf of the Company.

#### :: Insider Trading:

Buying or selling securities, directly or indirectly through family members or other persons or entities, while possessing material nonpublic information or selectively disclosing such information to others who may trade based on it is prohibited by applicable securities laws.

#### :: Contributions:

Officers, directors and employees may not (directly or indirectly) use Company funds or assets for contributions to any kind of political party or committee in the United States or Canada or to any candidate for, or holder of, any office of any national, state or local government in the

## Environmental, organizational and financial sustainability initiatives have been key components of our success since we were founded in 1997.

United States, or any national, provincial or local government in Canada. Exceptions may be permitted for state, provincial and local contributions in jurisdictions that permit corporate political contributions, but only upon approval by the Company's Chief Executive Officer or President. In countries other than the United States or Canada, the policy will be determined in accordance with local law and practice as well as laws applicable to the Company.

The Nominating and Corporate Governance Committee is responsible for ensuring the Company implements good corporate governance practices, including compliance with the Code of Conduct and Ethics.

Copies of our Corporate Governance Guidelines and Board Charter and our Code of Conduct and Ethics are available on our website at http://wasteconnections.investorroom.com. A copy of the Corporate Governance Guidelines and Board Charter and our Code of Conduct and Ethics may also be obtained, free of charge, by writing to our Secretary or Investor Relations at our principal administrative offices located at Waste Connections, Inc., 3 Waterway Square Place, Suite 110, The Woodlands, Texas 77380.









## GLOBAL REPORTING INITIATIVE EMISSIONS DISCLOSURE

#### **EMISSIONS DISCLOSURE**

Waste Connections emissions disclosure was developed using the Global Reporting Initiative (GRI) G4 Sustainability Reporting Guidelines. The Waste Connections GHG Inventory was prepared in a manner consistent with The Climate Registry (TCR) General Reporting Protocol (GRP) Version 2.1 dated January 2016 and its associated updates and clarifications. Year-over-year increases primarily reflect the impact of acquisitions, including the Progressive Waste acquisition completed in June 2016.

The impact of carbon sequestration in our landfills is significant and well documented in scientific literature. Due to anaerobic conditions that exist within landfills, lignins and hemicellulosic materials remain undecomposed. They represent approximately 50% of biogenic carbon in the waste stream. Waste Connections disposed of 23,624,427 tons of MSW and C&D materials in 2016 and 29,933,338 tons of MSW and C&D material in 2017. Approximately 50% of that material is carbonaceous. This suggests that the landfills sequestered 5.9 million MT of carbon in 2016 and 7.5 million MT of carbon in 2017.

G4-EN15:
Direct (Scope 1) greenhouse gas (GHG) emissions

G4-EN16: Energy indirect (Scope 2) GHG emissions

MT CO₂e		M	MT CO₂e		
	2016	2017	2016	2017	
	7,239,950	9,252,375	50,213	103,154	

#### G4-EN17: Other indirect (Scope 3) GHG emissions

Emissions Source	MI	ΓCO₂e
	2016	2017
Purchased goods and services	621,953	812,663
Capital goods	157,332	212,455
Waste generated in operations	112,578	119,646
Upstream transportation and distribution	310,767	357,234
Business travel (air and vehicle)	3,240	54,617
Use of sold products	35,358	22,812
Total	1,241,228	1,579,427







#### G4-EN18: GHG emissions intensity

	Unit	2016	2017
Gross Revenue	\$US Dollars Millions	\$3,376	\$4,630
Scope 1 Emissions	MT CO₂e	7,239,950	9,252,375
MT CO₂e/\$M Revenue		2,145	1,998
Scope 2 Emissions	MT CO₂e	50,213	103,154
MT CO₂e/\$M Revenue		15	22
Scope 1 & 2 Emissions	MT CO₂e	7,290,163	9,355,529
MT CO₂e/\$M Revenue		2,159	2,020

#### G4-EN19: Reduction of GHG emissions

Waste Connections has undertaken several initiatives to reduce GHG emissions. The Company currently operates 22 landfill gas to energy facilities. Operation of these facilities results in annual avoided GHG emissions estimated at 760,803 MT CO $_2$ e. The estimate of avoided emissions assumed that natural gas was the fuel replaced by the use of landfill gas. The avoided emissions were calculated using default methodologies from TCR included CO2, CH4 and N2O emissions.

Waste Connections diverts over 50% of collected waste volumes in certain markets, in some cases over 70%. The estimated avoided GHG emissions in 2016 and 2017 from recycling was 5,323,599 MT  $CO_2e$  and 5,193,730 MT  $CO_2e$ , respectively. These values were calculated using the USEPA Waste Reduction Model (WARM).

Over the past several years, Waste Connections has deployed vehicles using alternative fuels such compressed natural gas (CNG) and biodiesel as a means of reducing its GHG footprint. Waste Connections currently deploys more than 1,000 CNG vehicles. The estimated annual GHG emissions reductions from deployment of these

vehicles is over 15,000 MT CO<sub>2</sub>e, using an equivalent diesel vehicle as a baseline.

G4-EN22: Water discharge by quality and destination In 2016, Waste Connections collected 446,631,415 gallons of leachate with 411,609,915 gallons being sent to a third party for treatment. In 2016, Waste Connections also collected 811,768,944 gallons of E&P produced water for onsite treatment. A total of 45,654 gallons of E&P produced water was sent to a third party for treatment in 2016.

In 2017, Waste Connections collected 537,805,480 gallons of leachate with 431,037,230 gallons being sent to a third party for treatment. In 2017, Waste Connections also collected 860,735,255 gallons of E&P produced water for onsite treatment. A total of 8,408,535 gallons of E&P produced water was sent to a third party for treatment in 2017.

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





#### **Company Headquarters**

610 Applewood Crescent, 2nd Floor Vaughan, Ontario L4K OE3 Canada

#### **Principal Administrative Offices**

3 Waterway Square Place, Suite 110 The Woodlands, Texas 77380 USA 832.442.2200

www.wasteconnections.com

