

US ECOLOGY, INC.  
Form 10-K  
February 26, 2018  
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10 K

ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the fiscal year ended December 31, 2017

OR

TRANSITION REPORT PURSUANT TO Section 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_ .  
Commission file number: 0000 11688

US ECOLOGY, INC.

(Exact name of registrant as specified in its charter)

Delaware 95 3889638  
(State or other jurisdiction of (I.R.S. Employer  
incorporation or organization) Identification No.)  
101 S. Capitol Blvd., Suite 1000  
Boise, Idaho 83702  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (208) 331 8400

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

Common Stock, \$0.01 par value  
(Title of class)

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well known seasoned issuer, as defined in 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

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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  
(Do not check if a smaller reporting company) growth company

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 registrant's voting stock held by non-affiliates on June 30, 2017 was approximately \$1.09 billion based on the closing price of \$50.50 per share as reported on the NASDAQ Global Market System.

At February 16, 2018, there were 21,875,407 shares of the registrant's Common Stock outstanding.

Documents Incorporated by Reference

Listed hereunder are the documents, any portions of which are incorporated by reference and the Parts of this Form 10-K into which such portions are incorporated:

1. The registrant's definitive proxy statement for use in connection with the Annual Meeting of Stockholders to be held on or about May 22, 2018 to be filed within 120 days after the registrant's fiscal year ended December 31, 2017, portions of which are incorporated by reference into Part III of this Form 10-K.

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FORM 10 K

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PART I

Cautionary Statement for Purposes of Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995

This annual report on Form 10-K contains forward looking statements within the meaning of the federal securities laws. Statements that are not historical facts, including statements about the Company's beliefs and expectations, are forward looking statements. Forward looking statements include statements preceded by, followed by or that include the words "may," "could," "would," "should," "believe," "expect," "anticipate," "plan," "estimate," "target," "project," "intend" or similar expressions. These statements include, among others, statements regarding our financial and operating results, strategic objectives and means to achieve those objectives, the amount and timing of capital expenditures, repurchases of its stock under approved stock repurchase plans, the amount and timing of interest expense, the likelihood of our success in expanding our business, financing plans, budgets, working capital needs and sources of liquidity.

Forward looking statements are only predictions and are not guarantees of performance. These statements are based on management's beliefs and assumptions, which in turn are based on currently available information. Important assumptions include, among others, those regarding demand for Company services, expansion of service offerings geographically or through new or expanded service lines, the timing and cost of planned capital expenditures, competitive conditions and general economic conditions. These assumptions could prove inaccurate. Forward looking statements also involve known and unknown risks and uncertainties, which could cause actual results to differ materially from those contained in any forward looking statement. Many of these factors are beyond our ability to control or predict. Such factors include the replacement of non-recurring event cleanup projects, a loss of a major customer, our ability to permit and contract for timely construction of new or expanded disposal cells, our ability to renew our operating permits or lease agreements with regulatory bodies, loss of key personnel, compliance with and changes to applicable laws, rules, or regulations, access to insurance, surety bonds and other financial assurances, a deterioration in our labor relations or labor disputes, our ability to perform under required contracts, failure to realize anticipated benefits and operational performance from acquired operations, adverse economic or market conditions, government funding or competitive pressures, incidents or adverse weather conditions that could limit or suspend specific operations, access to cost effective transportation services, fluctuations in foreign currency markets, lawsuits, our willingness or ability to repurchase stock or pay dividends, implementation of new technologies, limitations on our available cash flow as a result of our indebtedness and our ability to effectively execute our acquisition strategy and integrate future acquisitions.

Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the Securities and Exchange Commission (the "SEC"), we are under no obligation to publicly update or revise any forward looking statements, whether as a result of new information, future events or otherwise. You should not place undue reliance on our forward looking statements. Although we believe that the expectations reflected in forward looking statements are reasonable, we cannot guarantee future results or performance. Before you invest in our common stock, you should be aware that the occurrence of the events described in the "Risk Factors" section in this report could harm our business, prospects, operating results, and financial condition.

Investors should also be aware that while we do, from time to time, communicate with securities analysts, it is against our policy to disclose to them any material non-public information or other confidential commercial information. Accordingly, stockholders should not assume that we agree with any statement or report issued by any analyst irrespective of the content of the statement or report. Furthermore, we have a policy against issuing or confirming financial forecasts or projections issued by others. Thus, to the extent that reports issued by securities analysts contain any projections, forecasts or opinions, such reports are not the responsibility of US Ecology, Inc.



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## ITEM 1. BUSINESS

## General

The table below contains definitions that are used throughout this Annual Report on Form 10 K.

Term	Meaning
US Ecology, the Company, “we,” “our,” “us”	US Ecology, Inc., and its subsidiaries
AEA	Atomic Energy Act of 1954, as amended
CEPA	Canadian Environmental Protection Act (1999)
CERCLA or “Superfund”	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CWA	Clean Water Act of 1977
LARM	Low activity radioactive material exempt from federal Atomic Energy Act regulation for disposal
LLRW	Low level radioactive waste regulated under the federal Atomic Energy Act for disposal
NORM/NARM	Naturally occurring and accelerator produced radioactive material
NRC	U.S. Nuclear Regulatory Commission
PCBs	Polychlorinated biphenyls
QEQA	Québec Environmental Quality Act
RCRA	Resource Conservation and Recovery Act of 1976
SEC	U. S. Securities and Exchange Commission
TSCA	Toxic Substances Control Act of 1976
TSDF	Treatment, Storage and Disposal Facility
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
WUTC	Washington Utilities and Transportation Commission

US Ecology, Inc. is a leading North American provider of environmental services to commercial and government entities. The Company addresses the complex waste management needs of its customers, offering treatment, disposal and recycling of hazardous, non hazardous and radioactive waste, as well as a wide range of complementary field and industrial services. US Ecology’s comprehensive knowledge of the waste business, its collection of waste management facilities and focus on safety, environmental compliance, and customer service enables us to effectively meet the needs of our customers and to build long lasting relationships. US Ecology and its predecessor companies have been in business for more than 60 years. As of December 31, 2017, we employed approximately 1,550 people.

US Ecology was most recently incorporated as a Delaware corporation in May 1987 as American Ecology Corporation. On February 22, 2010, the Company changed its name from American Ecology Corporation to US Ecology, Inc. Our filings with the SEC are posted on our website at [www.usecology.com](http://www.usecology.com). The information found on our website is not part of this or any other report we file with or furnish to the SEC. The public can also obtain copies of these filings by visiting the SEC’s Public Reference Room at 100 F Street NE, Washington DC 20549, or by calling the SEC at 1 800 SEC 0330 or by accessing the SEC’s website at [www.sec.gov](http://www.sec.gov).

We have fixed facilities and service centers operating in the United States, Canada and Mexico. Our fixed facilities include five permitted hazardous waste landfills and one LLRW landfill located near Beatty, Nevada; Richland,

Washington; Robstown, Texas; Grand View, Idaho; Detroit, Michigan and Blainville, Québec, Canada. These facilities generate revenue from fees charged to treat and dispose of waste and to perform various field and industrial services for our customers.

On June 17, 2014, the Company acquired 100% of the outstanding shares of EQ Holdings, Inc. and its wholly owned subsidiaries (collectively "EQ"). EQ is a fully integrated environmental services company providing waste treatment and disposal, wastewater treatment, remediation, recycling, industrial cleaning and maintenance, transportation, total waste

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management, technical services, and emergency response services to a variety of industries and customers in North America.

On November 1, 2015, we sold our Allstate Power Vac, Inc. (“Allstate”) subsidiary to a private investor group. See Note 5 to the Consolidated Financial Statements in “Part II, Item 8. Financial Statements and Supplementary Data” of this Annual Report on Form 10 K for additional information.

Our operations are managed in two reportable segments reflecting our internal management reporting structure and nature of services offered as follows:

**Environmental Services**—This segment provides a broad range of hazardous material management services including transportation, recycling, treatment and disposal of hazardous and non hazardous waste at Company owned landfill, wastewater and other treatment facilities.

**Field & Industrial Services**—This segment provides packaging and collection of hazardous waste and total waste management solutions at customer sites and through our 10 day transfer facilities. Services include on site management, waste characterization, transportation and disposal of non hazardous and hazardous waste. This segment also provides specialty services such as high pressure cleaning, tank cleaning, decontamination, remediation, transportation, spill cleanup and emergency response and other services to commercial and industrial facilities and to government entities.

Financial information with respect to each segment is further discussed in Note 20 to the Consolidated Financial Statements in “Part II, Item 8. Financial Statements and Supplementary Data” of this Annual Report on Form 10 K.

### Environmental Services Segment

Our Environmental Services involve the transportation, treatment, recycling and disposal of hazardous and non hazardous wastes, and include physical treatment, recycling, landfill disposal and wastewater treatment services.

### Waste Treatment & Disposal

We recycle, treat and dispose of hazardous and non hazardous industrial wastes. The wastes handled include substances which are classified as “hazardous” because of their corrosive, ignitable, reactive or toxic properties, and other wastes subject to federal, state and provincial environmental regulation. The wastes we handle come in solid, liquid and sludge form and can be received in a variety of containerized and bulk forms and transported to our facilities by truck and rail.

We own and operate five permitted hazardous waste treatment and disposal landfills in the United States and Canada used primarily for the disposal of wastes treated at Company owned onsite and offsite treatment facilities. The United States landfills are regulated under RCRA by the respective states in which they are located and the USEPA while our Canadian landfill is regulated by the Québec Ministry of Environment. We also operate a commercial LLRW landfill in Richland, Washington that is licensed by the Washington Department of Health through delegated authority of the NRC. The WUTC sets disposal rates for LLRW. Rates are set at an amount sufficient to cover operating costs and provide us with a reasonable profit. The current rate agreement with the WUTC was extended in 2013 and is effective until January 1, 2020.

As of December 31, 2017, the capacity used in the calculation of the useful economic lives of our six landfills includes approximately 37.2 million cubic yards of remaining permitted airspace capacity and approximately 18.1 million cubic yards of additional unpermitted airspace capacity included in the footprints of these landfills. We



believe it is probable that this unpermitted airspace capacity will be permitted in the future based on our analysis of site conditions, past regulatory approvals on adjacent property, and our interactions with regulators on applicable regulations, although there can be no assurance that any additional unpermitted airspace capacity will be permitted in the future.

Treatment and disposal (“T&D”) revenue can be broken down into two categories, based on the underlying nature of the revenue source: “Base Business” and “Event Business.”

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Base Business consists of waste streams from ongoing industrial activities and tends to be reoccurring in nature. Our strategy is to expand our Base Business while securing both short-term and extended-duration Event Business. We define Event Business as non-recurring projects that are expected to equal or exceed 1,000 tons, with Base Business defined as all other business not meeting the definition of Event Business. The duration of Event Business projects can last from a several-week cleanup of a contaminated site to a multiple-year cleanup project.

Base Business represented approximately 78% and 82% of disposal revenue (excluding transportation) for the years ended December 31, 2017 and 2016, respectively. Event Business contributed approximately 22% and 18% of disposal revenue (excluding transportation) for the years ended December 31, 2017 and 2016, respectively.

When Base Business covers our fixed overhead costs, a significant portion of disposal revenue generated from Event Business is generally realized as operating income and net income. This strategy takes advantage of the operating leverage inherent to the largely fixed-cost nature of the waste disposal business. Contribution margin is influenced by whether the waste is directly disposed (“direct disposal”) or requires the application of chemical reagents, absorbents or other additives (variable costs) to treat the waste prior to disposal.

A significant portion of our T&D revenue is attributable to discrete Event Business projects which vary widely in size, duration and unit pricing. For the year ended December 31, 2017, approximately 22% of our T&D revenue was derived from Event Business projects. The one-time nature of Event Business, diverse spectrum of waste types received and widely varying unit pricing necessarily creates variability in revenue and earnings. This variability may be influenced by general and industry-specific economic conditions, funding availability, changes in laws and regulations, government enforcement actions or court orders, public controversy, litigation, weather, commercial real estate, closed military bases and other project timing, government appropriation and funding cycles and other factors. The types and amounts of Base Business waste received also vary quarter to quarter, sometimes significantly, but are generally more predictable than Event Business.

The types of waste received, also referred to as “service mix,” can produce significant quarter-to-quarter and year-to-year variations in revenue, average selling price, gross profit, gross margin, operating profit and net income for both Base Business and Event Business.

### Wastewater Treatment

We operate wastewater treatment facilities that offer a range of wastewater treatment technologies. These wastewater treatment operations involve processing hazardous and non-hazardous wastes through the use of physical and chemical treatment methods. Our wastewater treatment facilities treat a broad range of industrial liquid and semi-liquid wastes containing heavy metals, organics and suspended solids.

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The following table summarizes the locations and services of our active Environmental Services waste treatment and/or disposal facilities:

Location	Onsite Landfill	Services
Beatty, Nevada	Yes	Hazardous and non hazardous industrial waste treatment, storage and disposal facility permitted under Subtitle C of RCRA and TSCA to treat and dispose RCRA, TSCA and certain NRC exempt (NORM) radioactive waste.
Robstown, Texas	Yes	Hazardous and non hazardous industrial waste treatment, storage and disposal facility permitted under Subtitle C of RCRA to treat and dispose RCRA, PCB remediation and certain NRC exempt (LARM and NORM/NARM) radioactive waste. PCB waste storage for off site shipment. Features a thermal desorption system permitted as a Subpart X RCRA treatment unit that treats and recycles organic materials including recoverable oils and metal catalysts from petroleum wastes. Rail transfer station.
Grand View, Idaho	Yes	Hazardous and non hazardous industrial waste treatment, storage and disposal facility permitted under Subtitle C of RCRA and TSCA to treat RCRA and TSCA wastes and certain NRC exempt (NORM/NARM, Technologically Enhanced NORM (TENORM)) radioactive waste. Rail transfer station.
Belleville, Michigan	Yes	Hazardous and non hazardous industrial waste treatment, storage and disposal facility permitted under Subtitle C of RCRA to treat and dispose RCRA wastes and certain NRC exempt (NORM/NARM, Technologically Enhanced NORM (TENORM)) radioactive waste. Permitted under TSCA to dispose TSCA wastes. Features a regenerative thermal oxidation air pollution control system that is compliant with RCRA Subpart CC air emissions standards. Rail transfer station.
Blainville, Québec, Canada	Yes	Permitted by the Canadian Ministry of Environment and authorized under the Environmental Quality Act by Order in Council to treat and stabilize inorganic hazardous liquid and solid waste and contaminated soils to produce a non leachable concrete like material for disposal in the onsite landfill. Specializes in processing hard to treat materials, such as cyanides, mercury compounds, strong acids, non organic oxidizers, lab packs, contaminated debris and batteries. Direct rail access.
Richland, Washington	Yes	LLRW disposal facility accepts Class A, B, and C commercial LLRW from within the Northwest Interstate and Rocky Mountain Compacts, NORM/NARM and LARM waste including radium sources produced by customers nationwide. One of only three full service Class A, B, and C disposal facilities in the nation.
Detroit, Michigan	No	RCRA Part B and Centralized Wastewater Treatment (“CWT”) permitted industrial hazardous and non hazardous treatment of liquid wastes, stabilization, solidification, chemical oxidation/reduction and deactivation of hazardous and non hazardous solid and liquid wastes. Direct rail access.
Canton, Ohio	No	RCRA Part B and CWT permitted wastewater treatment of hazardous and non hazardous liquid wastes and stabilization, solidification, chemical oxidation/reduction, deactivation and metals recovery of hazardous and non hazardous liquid and solid wastes. Specializes in a delisting process that converts industrial inorganic wastes into non hazardous residuals.
Harvey, Illinois	No	RCRA Part B and CWT permitted wastewater treatment of hazardous and non hazardous liquid wastes and stabilization, solidification, chemical oxidation/reduction, deactivation, metals recovery of hazardous and

		non hazardous liquid and solid wastes and industrial cleaning. Specializes in a delisting process that converts industrial inorganic wastes into non hazardous residuals.
York, Pennsylvania	No	RCRA Part B and CWT permitted wastewater treatment of hazardous and non hazardous liquid wastes and stabilization, solidification, chemical oxidation/reduction, deactivation and metals recovery of hazardous and non hazardous liquid and solid wastes. Specializes in a delisting process that converts industrial inorganic wastes into non hazardous residuals.
Tulsa, Oklahoma	No	RCRA Part B and CWT permitted wastewater treatment of hazardous and non hazardous liquid wastes and stabilization, solidification, chemical oxidation/reduction and deactivation of hazardous and non hazardous liquid and solid wastes.
Tilbury, Ontario, Canada	No	Hazardous and non hazardous industrial waste treatment, storage, and disposal facility permitted by the Ontario Ministry of Environment. Provides bulking, blending and solidification services. Treatment of non hazardous hydrocarbon contaminated solids to industrial re use standards. Full licensed and permitted fleet of hazardous and non hazardous transportation equipment. Also provides heavy industrial cleaning and confined space entry and rescue services along with emergency response.
Vernon, California	No	RCRA Part B and CWT permitted wastewater treatment of hazardous and non hazardous liquid wastes. Storage and consolidation of hazardous and non hazardous wastes. California State certified laboratory. Direct rail access.

Recycling Services

We operate recycling technologies designed to reclaim valuable commodities from hazardous waste, including oil bearing hazardous waste, certain metal bearing waste, batteries, and solvent based wastes for industrial clients, metal finishing and other manufacturing processes. The recycling and reclamation process involves the treatment of wastes using various

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methods to effectively remove contaminants from the original material to restore its usefulness and to reduce the volume of waste requiring disposal.

We offer full service storm water management and propylene glycol recovery at major airports. We currently operate deicing fluid collection systems at the Minneapolis St. Paul, Minnesota and Detroit, Michigan airports. We also receive deicing fluids from the Grand Rapids, Michigan airport in the Great Lakes Region. Recovered fluids are transported to our RCRA Part B and CWT permitted chemical recycling facility where they are recycled into a greater than 99% pure material that is sold to industrial users.

We also operate a thermal desorption unit at our Robstown, Texas facility that recovers oil and metal bearing catalyst from refinery waste. The recycled oil and recycled catalyst are sold to third parties.

We operate a fleet of mobile solvent recycling stills that provide on site recycling services throughout the Eastern United States. The trailer mounted stills are self contained units that perform solvent distillation at the point of generation. Waste solvents are processed in 500 - 7,500 gallon batches, and clean solvent is returned for reuse. Our Mobile Recycling services are based in Mt. Airy, North Carolina.

## Transportation

For waste transported by rail from locations distant from our facilities, transportation related revenue can vary significantly and can account for as much as 75% of total project revenue. While bundling transportation and disposal services may reduce overall gross profit as a percentage of total revenue (“gross margin”), this value added service has allowed us to win multiple projects that we believe we could not have otherwise competed for successfully. Our Company owned fleet of gondola railcars, which is periodically supplemented with railcars obtained under operating leases, has reduced our transportation expenses by largely eliminating reliance on more costly short term rentals. These Company owned railcars also help us to win business during times of demand driven railcar scarcity. We also utilize a variety of specially designed and constructed Company owned tanker trucks and trailers as well as various third party transporters to support this activity. Further, to maximize utilization of our railcar fleet, we periodically deploy available railcars to transport waste from cleanup sites to disposal facilities operated by other companies. Such transportation services may also be bundled with logistics and field services support work.

## Field & Industrial Services Segment

Our Field & Industrial Services include a wide range of industrial maintenance and specialty services at refineries, chemical plants, steel and automotive plants, and other government, commercial and industrial facilities. Onsite specialty services include excavation, high pressure cleaning, tank cleaning, decontamination, remediation, transportation, spill cleanup and emergency response. We provide these services through a network of facilities located throughout the United States that are organized into service lines including Small Quantity Generation, Remediation Services, Managed Services, Emergency Response, Transfer and Processing and Terminal Services and Industrial Services.

## Small Quantity Generation

Our small quantity generation service offerings consist of retail services, laboratory packing, less than truckload (“LTL”), and household hazardous waste (“HHW”) collection. Retail services, laboratory packing, LTL and HHW are full service waste characterization, packaging, collection and transportation programs. Services are provided to small, medium and large industrial and commercial customers. These programs are built on our network of service centers, employ highly trained staff and provide a high level of service to the customer. As an integral part of our services, we operate a network of service centers that characterize, package and collect hazardous and non hazardous wastes from

customers and transport such wastes to and between our facilities for treatment or bulking for shipment to final disposal locations. Customers typically accumulate wastes in containers, such as 55 gallon drums, bulk storage tanks or 20 cubic yard roll off containers. We utilize a variety of specially designed and constructed tank trucks and semi trailers as well as third party transporters, including railroads. Depending on customer needs and competitive economics, transportation services may be offered at or near our cost to help secure new business.

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### Remediation Services

Our remediation service offerings include RCRA and TSCA closures, surgical excavations, wastewater management, building decontamination and radiological site remediation.

### Managed Services

Our managed service offerings consist of total waste management (“TWM”) programs. Through our TWM program, customers outsource the management of their waste compliance program to us, allowing us to organize and coordinate their waste management disposal activities and environmental compliance.

### Emergency Response

Our primary emergency response offerings include spill response, waste analysis and treatment and disposal planning. We also offer product transfers, spill contingency planning and yearly service agreements with first responder status. Trained, experienced professionals operate the Company’s Emergency Response Service 24 hours per day, 7 days per week.

### Transfer and Processing

Our transfer and processing stations stage and consolidate non bulk loads of hazardous, non hazardous and universal waste into full loads for more efficient shipment to Company owned or third party treatment and disposal facilities. This allows us to offer a broader geographic presence without having a dedicated, Company owned treatment or disposal facility in the region.

### Terminal Services

Our terminal services include petroleum and chemical tank cleaning and other services, including emergency response, construction and industrial maintenance. The Company services several major petroleum terminals around New York Harbor.

### Industrial Services

Our primary industrial service offerings include industrial cleaning and maintenance for refineries, chemical plants, steel and automotive plants, as well as tank cleaning and temporary storage.

### Waste Services Industry

During the 1970s and 1980s, waste services industry growth in the United States was driven by new environmental laws and actions by federal and state agencies to regulate existing hazardous waste management facilities and direct the cleanup of contaminated sites under the federal Superfund law. By the early 1990s, excess hazardous waste management capacity had been constructed by the industry. Over this same period, to better manage risk and reduce expenses, many waste generators instituted industrial process changes and other methods to reduce waste production. These factors led to highly competitive market conditions that still apply today.

In the U.S., hazardous waste is regulated under the RCRA, which created a cradle to grave system governing defined hazardous waste from the point of generation to ultimate disposal. RCRA requires waste generators to distinguish between “hazardous” and “non hazardous” wastes, and to treat, store and dispose of hazardous waste in accordance with specific regulations. Generally, entities that treat, store, or dispose of hazardous waste must obtain a permit, either

from the USEPA or from a state agency to which the USEPA has delegated such authority. Similar regulations and management methods apply to hazardous waste generation in Canada, which is regulated by the Canada Ministry of Environment and delegated to provincial agencies.

Disposal facilities are typically designed to permanently contain the waste and prevent the release of harmful pollutants into the environment. The most common hazardous waste disposal practice is placement in an engineered disposal unit



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such as a landfill, surface impoundment or deep injection well. RCRA's hazardous waste permitting program establishes specific requirements that must be followed when managing those wastes.

We believe that a baseline demand for hazardous waste services will continue into the future with fluctuations driven by general and industry specific economic conditions, identification and prioritization of new cleanup needs, cleanup project schedules, funding availability, regulatory changes and other public policy decisions. We further believe that the ability to deliver specialized niche services while aggressively competing for large volume cleanup projects and non niche commodity business opportunities differentiates successful from less successful companies. We seek to control variable costs, expand service lines, increase waste throughput efficiency, employ innovative treatment techniques, provide complementary transportation and logistics services, build market share and increase profitability.

Our Richland, Washington disposal facility, serving the Northwest and Rocky Mountain LLRW Compacts, is one of three operating Compact disposal facilities in the U.S. While our Washington disposal facility has substantial unused capacity, it can only accept LLRW from the 11 western states comprising the two Compacts served. The Barnwell, South Carolina site, operated by Energy Solutions, Inc. ("Energy Solutions"), exclusively serves the three state Atlantic Compact. A third LLRW disposal facility, licensed by Waste Control Specialists, LLC and located near Andrews, Texas serves the two state Texas Compact and approved out of compact waste generators. Class A LLRW from states outside the Northwest Compact region may also be disposed at a non compact, commercial disposal site in Clive, Utah, also operated by Energy Solutions.

Increases in pricing at AEA licensed LLRW disposal facilities heightened demand for more cost effective disposal options for soil, debris, consumer products, industrial wastes and other materials containing LARM, including "mixed wastes," exhibiting both hazardous and radioactive properties. In addition to commercial demand, a substantial amount of LARM is generated by government cleanup projects. The NRC, USEPA and USACE have authorized the use of hazardous waste disposal facilities to dispose of certain LARM, encouraging expansion of this compliant, cost effective alternative. We have been successful at expanding our permits at four of our RCRA hazardous waste facilities to allow acceptance of additional LARM wastes.

### Industrial Services Industry

The industrial services industry is highly fragmented with thousands of small companies performing a variety of cleaning, maintenance and other services to industrial based companies such as refineries, chemical plants and steel and automotive plants. We believe customers increasingly desire to shift high fixed costs to lower variable costs by outsourcing waste management and industrial services. Some companies, such as power generation plants, petroleum refineries and chemical processors, are required to perform specialized "turnaround" maintenance only once or twice per year, making it impractical and cost prohibitive to purchase expensive, specialized equipment, comply with complex permits and employ full time specialized technicians required to perform those services. Similarly, the regulatory requirements of characterizing, manifesting, transporting and properly disposing of waste has led many companies to outsource this function to specialists. Our network of service centers and treatment, recycling and storage facilities provides a national footprint allowing us to serve these customers, while at the same time internalizing the waste to our own facilities.

Industrial services generally have low barriers to entry and customers are frequently won based on quality of service, reputation, health and safety record, logistics and price. This low barrier to entry has fostered a fragmented and competitive market place.

### Strategy

Our strategy is to capitalize on our difficult to replicate combination of treatment and disposal assets and complementary service lines to provide a full service offering to customers and increase market share in the diverse markets we serve. We are focused on safety, environmental compliance and a commitment to customer service excellence. In addition to organic growth initiatives, we actively pursue acquisition opportunities to expand our geographic reach, service lines and customer base. The principal elements of our business strategy are to:

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**Execute Best in Class Safety and Environmental Compliance Programs.** We pursue best in class safety and environmental compliance at US Ecology. Not only is it the cornerstone of our business, but our customers and regulators rely on our expertise when they select us as a vendor or grant us permits and licenses. We deploy significant resources in terms of human capital, programs and facility investment to achieve safe and compliant operations. The Company has dedicated professionals who oversee and manage safety and environmental programs including, but not limited to, employee training, internal and independent external audits, safety incentive programs, Voluntary Protection Programs (“VPP”), the Safety & Health Achievement Recognition Program, and ISO 9001 and ISO 14001 programs. Dedicated senior managers regularly review and discuss environmental and safety results with operational staff, management and the Board of Directors to improve our safety results and focus on regulatory compliance.

**Leverage Regulatory Expertise to Expand Permit Capabilities and Broaden Cost Effective Service Offerings.** We have a proven track record of leveraging more than six decades of regulatory experience to broaden our service offerings. Working with customers, we assess market opportunities in relation to existing laws, regulations and permit conditions. Our engineering, operational and regulatory affairs personnel then seek authority to implement innovative processes and technologies and accept additional types of waste by modifying our existing permits or obtaining new permits.

**Continue to Build on Our Robust Waste Handling Infrastructure to Increase Revenue from Existing Assets.** We believe we have a difficult to replicate set of treatment, recycling and disposal assets in the highly regulated hazardous and radioactive waste industry. We aim to enhance treatment capabilities at our existing facilities to handle additional waste streams and increase throughput. We also continue to invest in equipment and infrastructure to ensure that we have ample throughput capacity to expand our Event Business while continuing to support our Base Business customers.

**Execute on Marketing Initiatives to Grow Organically.** Our sales team is focused on high margin, niche wastes that our competitors may not be able to obtain the necessary regulatory authorizations for or handle cost effectively. We seek to expand into new markets and offer new services allowing us to cross sell or bundle services and ultimately drive incremental volume into our existing disposal facilities. Our strategy is to have our Base Business cover our fixed overhead costs and deliver a reasonable profit, which allows the majority of our Event Business revenue to be realized as operating profit. We aim to continue building our Base Business while remaining flexible enough to handle large cleanup events.

**Deliver Innovative Technological Solutions.** We challenge ourselves to identify innovative and technology driven solutions to solve our customers’ waste management challenges. Past examples include leveraging our expertise in developing waste treatment recipes for organic and metals bearing wastes, utilizing waste as a reagent to treat other wastes, beneficial reuse of select wastes, partnering with an innovative technology provider to deploy thermal desorption technology to recover oil and metal catalyst from refinery waste, and stabilizing mercury laden waste and other wastes using patented treatment process.

**Pursue a Disciplined Acquisition Strategy to Add Complementary Capabilities.** We pursue selective acquisitions to expand our disposal network, customer base and geographic footprint. We have had success achieving this in recent years through our targeted acquisition strategy, acquiring Stablex Canada Inc. (“Stablex”) in 2010, Dynecol, Inc. in 2012, EQ in 2014 and Environmental Services Inc. (“ESI”) and the Vernon, California based RCRA Part B, liquids and solids waste treatment and storage facility of Evoqua Water Technologies LLC in 2016. The acquisition of EQ also provided us with an entirely new line of complementary field and industrial service offerings. We continue to seek acquisition opportunities to further expand our service offerings across the hazardous waste value chain while maintaining our commitment to compliance, safety and customer service excellence.

## Competitive Strengths

**Difficult to Replicate Infrastructure.** We consider our disposal facilities to be difficult to replicate due to the longstanding regulatory and public policy environment for hazardous waste processing facilities, which includes the generally high cost of obtaining permits, multi-year permitting timeframes, uncertainty of outcome, high initial capital expenditures and the potential for both broad-based and local community opposition to the development of new facilities. As a result, it has been more than 20 years since a new hazardous waste landfill has been built in the United States. We operate five of twenty landfills in the U.S. and Canada that are permitted to accept RCRA wastes. Our Richland, Washington LLRW facility is

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one of only three full service Class A, B, and C disposal facilities in the U.S. Our personnel have extensive experience safely managing certain radioactive waste requiring the use of shielding and remote handling devices.

**Significant Regulatory and Operating Expertise.** We operate in a highly regulated marketplace. The permitting process for operating disposal assets in our industry is lengthy and complex, requiring a deep understanding of federal and state hazardous and radioactive waste laws and regulations. We maintain a regulatory compliance and permitting program at our disposal facilities that has allowed us to obtain approvals to expand our service offering in terms of the types, amounts and concentrations of wastes that we are authorized to accept. Our track record of successfully navigating government regulatory and permitting processes has been a consistent competitive advantage.

**A Market Leader in Hazardous & Non Hazardous Waste Treatment and Disposal.** We are a leader in the North American hazardous waste services sector with more than six decades of experience. Our collection of disposal assets combined with our transportation network provides us with coast to coast treatment and disposal capabilities, allowing us to serve a diverse mix of customers and industries across the United States, Canada and Mexico.

**Comprehensive Waste Services.** Our comprehensive waste service offerings allow us to act as a full service provider to our customers. Our full service orientation creates incremental revenue growth as customers seek to minimize the number of outside vendors through “one stop” service providers.

**Diverse Markets and Customer Base.** In 2017, we serviced more than 5,000 commercial and governmental entities, such as refineries, chemical production facilities, heavy manufacturers, steel mills, waste brokers and medical and academic institutions. Our broad range of end markets gives us exposure to a variety of industrial cycles, lessening the impact of market volatility.

**Solid Safety and Compliance Record.** Safety and environmental compliance is a cornerstone of US Ecology’s business. The Company has dedicated environmental professionals who oversee and manage safety and environmental programs including, but not limited to, employee training, internal and independent external audits, safety incentive programs, VPP, the Safety & Health Achievement Recognition Program, and ISO 9001 and ISO 14001 programs. Dedicated senior managers regularly review and discuss environmental and safety results with operational staff, management and the Board of Directors to improve our safety results and focus on regulatory compliance. In addition, we have received multiple operating site safety awards including the VPP Star Worksite Award, Thoroughbred Safety Award and the CSX Chemical Safety Award.

## Competition

Our Environmental Services segment competes with large and small companies in each of the commercial markets we serve. While niche services apply, the radioactive, hazardous and non hazardous industrial waste management industry is generally very competitive. We believe that our primary hazardous waste and PCB disposal competitors are Clean Harbors, Inc., Heritage Environmental Services and Waste Management, Inc. Other hazardous waste disposal competitors include, but are not limited to, Peoria Disposal Company, EnviroSAFE Services of Ohio, Tradebe, Ross Environmental, Perma Fix Environmental Services and Veolia Environmental Services. We believe that our primary radioactive material disposal competitors are Energy Solutions, Inc. and Waste Control Specialists, Inc. We believe the principal competitive factors applicable to these businesses are:

- price;
- specialized permits and “niche” service offerings;
- customer service;
- operational efficiency and technical expertise;
- regulatory compliance and worker safety;



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- industry reputation and brand name recognition;
- transportation distance; and
- State or Province and local community support.

Competition within our Field & Industrial Services segment varies by locality and type of service rendered, with competition coming from large national and regional service providers and hundreds of privately owned firms that offer field or industrial services. We believe that our primary field and industrial services competitors are Clean Harbors, Inc., Stericycle, Inc., Veolia Environmental Services and Waste Management, Inc. Each of these competitors is able to provide most if not all of the field and industrial services we offer.

We believe that we are competitive in all markets we serve and that we offer a unique mix of services, including niche technologies and services that favorably distinguish us from competitors. We also believe that our strong brand name recognition from six decades of experience, compliance and safety record, customer service reputation and positive relations with regulators and local communities enhance our competitive position. Advantages exist for competitors that are larger in scale or have technology, permits or equipment to handle a broader range of waste, that operate in jurisdictions imposing lower disposal fees and/or are located closer to where wastes are generated.

## Permits, Licenses and Regulatory Requirements

Obtaining authorization to construct and operate new hazardous or radioactive waste facilities is a lengthy and complex process. We believe we have demonstrated significant expertise in this area over multiple decades. We also believe we possess all permits, licenses and regulatory approvals required to maintain regulatory compliance and operate our facilities and have the specialized expertise required to obtain additional approvals to continue growing our business in the future.

We incur costs and make capital investments to comply with environmental regulations. These regulations require that we operate our facilities in accordance with permit specific requirements. Most of our facilities are also required to provide financial assurance for closure and post closure obligations should our facilities cease operations. Both human resource and capital investments are required to maintain compliance with these requirements.

## United States Hazardous Waste Regulation

Our hazardous, industrial, non hazardous and radioactive waste treatment, disposal and handling business is subject to extensive federal and state environmental, health, safety, and transportation laws, regulations, permits and licenses. Local government controls may also apply. The responsible government regulatory agencies regularly inspect our operations to monitor compliance. They have authority to enforce compliance through the suspension or revocation of operating licenses and permits and the imposition of civil or criminal penalties in case of violations. We believe that these laws and regulations, as well as the specialized services we provide, contribute to demand and create barriers to new competitors seeking to enter the markets we serve.

RCRA provides a comprehensive framework for regulating hazardous waste transportation, treatment, storage and disposal. RCRA regulation is the responsibility of the USEPA, which may delegate authority to state agencies. Chemical compounds and residues derived from USEPA listed industrial processes are subject to RCRA standards unless they are delisted through rulemaking. RCRA liability may be imposed for improper waste management or failure to take corrective action for releases of hazardous substances. To the extent wastes are recycled or beneficially reused, regulatory controls and permitting requirements under RCRA diminish. LARM and NORM/NARM may also be managed to varying degrees under RCRA permits, as is authorized for our facilities in Grand View, Idaho; Beatty, Nevada; Belleville, Michigan and Robstown, Texas.

CWA legislation prohibits discharge of pollutants into the waters of the United States without governmental authorization and regulates the discharge of pollutants into surface waters and sewers from a variety of sources, including disposal sites and treatment facilities. The USEPA has promulgated “pretreatment” regulations under the CWA, which establish pretreatment standards for introduction of pollutants into publicly owned treatment works. In the course of the treatment



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process, our wastewater treatment facilities generate wastewater, which we discharge to publicly owned treatment works pursuant to permits issued by the appropriate governmental authority. We are required to obtain discharge permits and conduct sampling and monitoring programs.

CERCLA and its amendments impose strict, joint and several liability on owners or operators of facilities where a release of hazardous substances has occurred, on parties who generated hazardous substances released at such facilities and on parties who arranged for the transportation of hazardous substances. Liability under CERCLA may be imposed if releases of hazardous substances occur at treatment, storage or disposal sites. Since waste generators, transporters and those who arrange transportation are subject to the same liabilities, we believe they are motivated to minimize the number of disposal sites used. In addition, hazardous waste generated during the remediation of CERCLA cleanup projects and transferred offsite must be managed by a treatment and disposal facility authorized by EPA to manage CERCLA waste.

TSCA regulates the treatment, storage and disposal of PCBs. U.S. regulation and licensing of PCB wastes is the responsibility of the USEPA. Our Grand View, Idaho and Beatty, Nevada facilities have TSCA treatment, storage and disposal permits. Our Belleville, Michigan facility has a TSCA disposal permit. Our Robstown, Texas facility has a TSCA storage permit and may dispose of PCB contaminated waste in limited concentrations not requiring a TSCA disposal permit.

The AEA assigns the NRC regulatory authority over receipt, possession, use and transfer of certain radioactive materials, including disposal. The NRC has adopted regulations for licensing commercial LLRW disposal and has delegated regulatory authority to certain states including Washington, where our Richland facility is located. The NRC and U.S. Department of Transportation regulate the transport of radioactive materials. Shippers must comply with both the general requirements for hazardous materials transportation and specific requirements for transporting radioactive materials.

The Energy Policy Act of 2005 amended the AEA to classify discrete (i.e. concentrated versus diffuse) NORM/NARM as byproduct material. The law does not apply to interstate Compacts ratified by Congress pursuant to the LLRW Policy Act.

### Canadian Hazardous Waste Regulation

The Canadian federal government regulates issues of national scope where activities cross provincial boundaries and affect Canada's relations with other nations. The Provinces retain control over environmental matters within their boundaries including primary responsibility for regulation and management of hazardous waste.

The main federal laws governing hazardous waste management are CEPA and the Transportation of Dangerous Goods Act. Environment and Climate Change Canada is the federal agency with responsibility for environmental matters. CEPA charges Environment Canada and Health Canada with the protection of human health and the environment and seeks to control the production, importation and use of substances in Canada and their impact on the environment. The Export and Import of Hazardous Waste Regulations under CEPA govern trans border movement of hazardous waste and hazardous recyclable materials. These regulations require that anyone proposing to export or import hazardous waste or hazardous recyclable materials or transport them through Canada notify the Minister of the Environment and obtain a permit to do so.

Our Stalex facility is located in Blainville, Québec, Canada and is subject to QEQA. This Act, independently developed by the Province, regulates the generation, characterization, transport, treatment and disposal of hazardous wastes. QEQA also provides for the establishment of waste management facilities which are controlled by the provincial statutes and regulations governing releases to air, groundwater and surface water.

Our Tilbury, Ontario, Canada facility is subject to Regulation 347 of the Ontario Environmental Protection Act. Regulation 347, independently developed by the Province, regulates the collection, storage, transportation, treatment, recovery and disposal of hazardous wastes.

Waste transporters require a permit to operate under the Province's regulations and are also subject to the requirements of the Federal Transportation of Dangerous Goods law which requires reporting of quantities and disposition of materials shipped.

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A major difference between the United States regulatory regime and that in Canada relates to ownership and liability. Under Canadian federal regulation, ownership changes when waste is transferred to a properly permitted third party carrier and subsequently to an approved treatment and disposal facility. As a result, the generator is no longer liable for proper handling, treatment or disposal. In the United States, joint and several liability is retained by the waste generator as well as the transporter and the treatment and disposal facility.

### Insurance, Financial Assurance and Risk Management

We carry a broad range of insurance coverage, including general liability, automobile liability, real and personal property, workers compensation, directors and officers liability, environmental impairment liability and other coverage customary to the industry. We do not expect the impact of any known casualty, property, environmental or other contingency to be material to our financial condition, results of operations or cash flows.

As noted above, applicable regulations require financial assurance to cover the cost of final closure and post closure obligations at certain of our operating and non operating disposal facilities. Acceptable forms of financial assurance include third party standby letters of credit, surety bonds and insurance. Alternatively, we may be required to collect fees from waste generators to fund dedicated, state controlled escrow or trust accounts during the operating life of the facility. Through December 31, 2017, we have met our financial assurance requirements through insurance, surety bonds, standby letters of credit and self funded restricted trusts.

Insurance policies covering our U.S. closure and post closure obligations expire in April 2018 and December 2018. While we expect to timely renew these policies as we have in the past, if we are unable to obtain adequate closure, post closure or environmental insurance, any partial or completely uninsured claim against us, if successful, could have a material adverse effect on our financial condition, results of operations and cash flows. Failure to maintain adequate financial assurance could also result in regulatory action including early closure of facilities. As of December 31, 2017, we have provided collateral of \$5.8 million in funded trust agreements, \$12.0 million in surety bonds, issued \$2.7 million in letters of credit for financial assurance and have insurance policies of approximately \$87.4 million for closure and post closure obligations. Financial assurance, premium and collateral cost requirement increases may have an adverse impact on our results of operations.

We maintain a surety bond for closure costs associated with the Blainville facility. Our lease agreement with the Province of Québec requires that the surety bond be maintained for 25 years after the lease expires. At December 31, 2017, we had \$752,000 in commercial surety bonds dedicated for closure obligations.

Primary casualty insurance programs generally do not cover accidental environmental contamination losses. To provide insurance protection for potential claims, we maintain pollution legal liability insurance and professional environmental consultant's liability insurance for non nuclear occurrences. For nuclear liability coverage, we maintain Facility Form and Workers' Form nuclear liability insurance provided under the federal Price Anderson Act. This insurance covers the operations of our facilities, suppliers and transporters. We purchase primary property, casualty and excess liability policies through traditional third party insurance carriers.

### Significant Customers

No customer accounted for more than 10% of total revenue for the years ended December 31, 2017, 2016, or 2015.

### Geographical Information

For the year ended December 31, 2017, we derived \$434.5 million or 86% of our revenue in the United States and \$69.5 million or 14% of our revenue in Canada. For the year ended December 31, 2016, we derived \$428.8 million or

90% of our revenue in the United States and \$48.9 million or 10% of our revenue in Canada. For the year ended December 31, 2015, we derived \$521.1 million or 93% of our revenue in the United States and \$42.0 million or 7% of our revenue in Canada. Additional information about the geographical areas in which our revenues are derived and in which our assets are located is presented in Note 20 to the Consolidated Financial Statements in “Part II, Item 8. Financial Statements and Supplementary Data” of this Annual Report on Form 10 K.

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## Seasonal Effects

Seasonal fluctuations due to weather and budgetary cycles can influence the timing of customer spending for our services. Typically, in the first quarter of each calendar year there is less demand for our services due to reduced construction activities related to weather. While large, multi year cleanup projects may continue in winter months, the pace of waste shipments may be slower, or stop temporarily, due to weather. Market conditions and federal funding decisions generally have a greater influence on the business than seasonality.

## Personnel

On December 31, 2017, we had approximately 1,550 employees, of which approximately 200 in the United States and 100 in Canada were represented by various labor unions.

## Executive Officers of Registrant

The following table sets forth the names, ages and titles, as well as a brief account of the business experience of each person who is currently an executive officer of US Ecology:

Name	Age	Title
Jeffrey R. Feeler	48	President and Chief Executive Officer
Simon G. Bell	47	Executive Vice President and Chief Operating Officer
Eric L. Gerratt	47	Executive Vice President, Chief Financial Officer and Treasurer
Steven D. Welling	59	Executive Vice President of Sales and Marketing
Andrew P. Marshall	51	Executive Vice President of Regulatory Compliance & Safety

Jeffrey R. Feeler was appointed President and Chief Executive Officer in May 2013. Mr. Feeler was previously the Company's senior executive as President and Chief Operating Officer from October 2012 to May 2013 and as the Company's Vice President and Chief Financial Officer from May 2007 to October 2012. He joined US Ecology in 2006 as Vice President, Controller, Chief Accounting Officer, Treasurer and Secretary. He previously held financial and accounting management positions with MWI Veterinary Supply, Inc., Albertson's, Inc. and Hewlett Packard Company. From 1993 to 2002, he held various accounting and auditing positions for PricewaterhouseCoopers LLP. Mr. Feeler is a Certified Public Accountant and holds a BBA of Accounting and a BBA of Finance from Boise State University.

Simon G. Bell was appointed Executive Vice President and Chief Operating Officer in November 2016. Mr. Bell previously served as the Company's Executive Vice President of Operations, Environmental Services from June 2014 to November 2016. From May 2013 to June 2014, he was Executive Vice President of Operations and Technology Development. From August 2007 to May 2013, he was Vice President of Operations. From 2005 to August 2007, he was Vice President of Hazardous Waste Operations. From 2002 to 2005, he was our Idaho facility General Manager and Environmental Manager. His 20 years of industry experience includes service as general manager of a competitor disposal facility and mining industry experience in Idaho, Nevada and South Dakota. He holds a BS in Geology from Colorado State University.

Eric L. Gerratt was appointed Executive Vice President, Chief Financial Officer and Treasurer in May 2013. Mr. Gerratt previously served as the Company's Vice President, Chief Financial Officer, Treasurer and Chief Accounting Officer from October 2012 to May 2013. He joined US Ecology in August 2007 as Vice President and Controller. He previously held various financial and accounting management positions at SUPERVALU, Inc. and Albertson's, Inc. From 1997 to 2003, he held various accounting and auditing positions for

PricewaterhouseCoopers LLP. Mr. Gerratt is a Certified Public Accountant and holds a BS in Accounting from the University of Idaho.

Steven D. Welling was appointed Executive Vice President of Sales and Marketing in May 2013. Mr. Welling previously served as the Company's Senior Vice President, Sales and Marketing from January 2010 to May 2013. He joined US Ecology in 2001 through the Envirosafe Services of Idaho acquisition. He previously served as National Accounts Manager for Envirosource Technologies and Western Sales Manager for Envirosafe Services of Idaho and before that managed new

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market development and sales for a national bulk chemical transportation company. Mr. Welling holds a BS from California State University Stanislaus.

Andrew P. Marshall was appointed Executive Vice President of Regulatory Compliance and Safety in May 2017. Mr. Marshall previously served as the Company's Senior Vice President, Regulatory Compliance and Safety from December 2014 to May 2017. He joined US Ecology in 2010 as Director of Environmental Compliance. He is a Professional Engineer with over 20 years experience assisting companies comply with environmental regulations, including past positions with Kleinfelder, a national environmental consulting firm, and Boise Cascade Corporation. Mr. Marshall holds a BS in Civil Engineering from Seattle University, an MS in Environmental Engineering from Oregon State University, and an MBA from Northwest Nazarene University.

## ITEM 1A. RISK FACTORS

In addition to the factors discussed elsewhere in this Form 10 K, the following are important factors which could cause actual results or events to differ materially from those contained in any forward looking statements made by or on behalf of us.

### Risks Affecting All of Our Businesses

The completion of, loss of or failure to renew one or more significant contracts could adversely affect our profitability.

We provide disposal and transportation services to customers on discrete Event Business (non recurring project based work) which varies widely in size, duration and unit pricing. Some of these multi year projects can account for a significant portion of our revenue and profit. The replacement of 2017 Event Business revenue and earnings depends on multiple factors, many of which are outside of our control including, but not limited to, general and industry specific economic conditions, capital in the commercial credit markets, general level of government funding on environmental matters, real estate development and other industrial investment opportunities. Our inability to replace the contribution from 2017 Event Business projects with new business could result in a material adverse effect on our financial condition and results of operations.

Our market is highly competitive. Failure to compete successfully could have a material adverse effect on our business, financial condition and results of operations.

We face competition from companies with greater resources than us, companies with closer geographic proximity to waste sites, companies with service offerings we do not provide and companies that can provide lower pricing than we can in certain instances. An increase in the number or location of commercial treatment or disposal facilities for hazardous or radioactive waste, significant expansion of existing competitor permitted capabilities, acquisitions by competitors or a decrease in the treatment or disposal fees charged by competitors could materially and adversely affect our results of operations. Our business is also heavily affected by waste disposal fees imposed by government agencies. These fees, which vary from state to state and are periodically adjusted, may adversely impact the competitive environment in which we operate.

Adverse economic conditions, government funding or competitive pressures affecting our customers could harm our business.

We serve oil refineries, chemical production plants, steel mills, real estate developers, waste brokers/aggregators serving small manufacturers and other industrial customers that are, or may be, affected by changing economic conditions and competition. These customers may be significantly impacted by deterioration in the general economy and may curtail waste production and/or delay spending on plant maintenance, waste cleanup projects and other discretionary work. Spending by government customers may also be reduced or temporarily suspended due to declining tax revenues that may result from a general deterioration in economic conditions or other federal or state fiscal policy. Factors that can impact general economic conditions and the level of spending by customers include the general level of consumer and industrial spending, increases in fuel and energy costs, residential and commercial real estate and mortgage market conditions, labor and healthcare costs, access to credit, consumer confidence and other macroeconomic factors affecting spending behavior.



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Market forces may also compel customers to cease or reduce operations, declare bankruptcy, liquidate or relocate to other countries, any of which could adversely affect our business.

Our operations are significantly affected by the commencement and completion of large and small cleanup projects; potential seasonal fluctuations due to weather; budgetary decisions and cash flow limitations influencing the timing of customer spending for remedial activities; the timing of regulatory agency decisions and judicial proceedings; changes in government regulations and enforcement policies and other factors that may delay or cause the cancellation of cleanup projects. We do not control such factors, which can cause our revenue and income to vary significantly from quarter to quarter and year to year.

If we fail to comply with applicable laws and regulations our business could be adversely affected.

The changing regulatory framework governing our business creates significant risks. We could be held liable if our operations cause contamination of air, groundwater or soil or expose our employees or the public to contamination. Under current law, we may be held liable for damage caused by conditions that existed before we acquired the assets or operations involved. Also, we may be liable if we arrange for the transportation, disposal or treatment of hazardous substances that cause environmental contamination at facilities operated by others, or if a predecessor made such arrangements and we are a successor. Liability for environmental damage could have a material adverse effect on our financial condition, results of operations and cash flows.

Stringent regulations of federal, state or provincial governments have a substantial impact on our business. Local government controls may also apply. Many complex laws, rules, orders and regulatory interpretations govern environmental protection, health, safety, noise, visual impact, odor, land use, zoning, transportation and related matters. Failure to obtain on a timely basis or comply with applicable federal, state, provincial and local governmental regulations, licenses, permits or approvals for our waste treatment and disposal facilities could prevent or restrict our ability to provide certain services, resulting in a potentially significant loss of revenue and earnings. Changes in environmental regulations may require us to make significant capital or other expenditures, or limit operations. Changes in laws or regulations or changes in the enforcement or interpretation of existing laws, regulations or permitted activities may require us to modify existing operating licenses or permits, or obtain additional approvals or limit operations. New governmental requirements that raise compliance standards or require changes in operating practices or technology may impose significant costs and/or limit operations.

Our revenue is primarily generated as a result of requirements imposed on our customers under federal, state, and provincial laws and regulations to protect public health and the environment. If requirements to comply with laws and regulations governing management of PCB, hazardous or radioactive waste were relaxed or less vigorously enforced, demand for our services could materially decrease and our revenues and earnings could be significantly reduced.

Failure to realize the anticipated benefits and operational performance from previously acquired operations could lead to an impairment of goodwill or other intangible assets.

As a result of acquisitions since 2010, we have goodwill of \$189.4 million and indefinite lived intangible assets of \$48.4 million at December 31, 2017. We are required to test goodwill and intangible assets with indefinite useful lives at least annually to determine if impairment has occurred. The testing of goodwill and other intangible assets for impairment requires us to make significant estimates about future performance and cash flows, as well as other assumptions. These estimates can be affected by numerous factors, including potential changes in economic, industry or market conditions, changes in laws or regulations, changes in business operations, changes in competition or changes in our stock price and market capitalization. Changes in these factors, or changes in actual performance compared with estimates of our future performance, may affect the fair value of goodwill or other intangible assets, which may result in an impairment charge.

Based on the results of those tests during the fourth quarter of 2017, we recorded a \$5.5 million goodwill impairment charge in our Resource Recovery reporting unit and a \$3.4 million impairment charge on the indefinite-lived intangible assets of our Resource Recovery business.

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Estimates of the future performance of our reporting units assume a certain level of revenue and earnings growth over the projection period. The projected revenue and earnings growth is based on various factors and assumptions that we consider to be reasonable, including, but not limited to, growth in the industries served by the Field Services reporting unit, successful implementation of our business and marketing strategies for this reporting unit and continuing favorable market conditions for the customers we serve. Should any of these assumptions turn out not to be true and the projected growth not occur for these or other reasons, or the reporting units otherwise fail to meet their current financial plans, or there are changes to any other key assumptions used in the estimates, the financial performance of these reporting units could result in a future goodwill impairment.

We cannot accurately predict the amount and timing of any impairment of assets. Should the value of goodwill or other intangible assets become impaired as a result of a failure to realize the anticipated benefits and operational performance of acquired operations, our financial condition and results of operations could be adversely impacted.

Unanticipated changes in our tax provisions or adverse outcomes resulting from examination of our income tax returns could adversely affect our results of operations.

We are subject to income taxes in the United States, Canada, and various state and local jurisdictions. Our effective income tax rate could be adversely affected by changes in tax laws or interpretations of those tax laws, or by changes in the valuation of our deferred tax assets and liabilities. On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Tax Act”), was signed into law making significant changes to the Internal Revenue Code. This Tax Act reduced the U.S. statutory corporate tax rate from 35% to 21% and made other changes that could have a favorable impact on our overall U.S. federal tax liability in a given period. However, the Tax Act also included a number of provisions that limit or eliminate various deductions that could affect our U.S. federal income tax position. We continue to examine the impact the Tax Act may have on our business. The impact of the Tax Act is uncertain and could be adverse. While we expect the Tax Act to be favorable to the Company overall, there can be no assurance that changes in tax laws or regulations, both within the U.S. and the other jurisdictions in which we operate, will not materially and adversely affect our effective tax rate, tax payments, financial condition and results of operations. See Note 16 to the Consolidated Financial Statements in “Part II, Item 8, Financial Statements and Supplementary Data” of this Annual Report on Form 10-K for additional information. Additionally, our effective tax rate may be affected by the tax effects of acquisitions or restructuring activities we may undertake, changes in share-based compensation, newly enacted tax legislation and uncertain tax positions we may take in the short term in response to such legislation. Finally, we are subject to the examination of our income tax returns by the Internal Revenue Service and other tax authorities which may result in the assessment of additional income taxes. We regularly assess the likelihood of adverse outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. However, unanticipated outcomes from examinations could have a material adverse effect on our business, financial condition and results of operations.

Our indebtedness may limit the amount of cash flow available to invest in the ongoing needs of our business, and our credit agreement restricts our ability to engage in certain corporate and financial transactions.

On April 18, 2017, the Company entered into a new senior secured credit agreement (the “New Credit Agreement”) with Wells Fargo Bank, National Association (“Wells Fargo”), as administrative agent for the lenders, swingline lender and issuing lender, and Bank of America, N.A., as an issuing lender, that provides for a \$500.0 million, five-year revolving credit facility (the “Revolving Credit Facility”), including a \$75.0 million sublimit for the issuance of standby letters of credit and a \$25.0 million sublimit for the issuance of swingline loans used to fund short-term working

capital requirements. The New Credit Agreement also contains an accordion feature whereby the Company may request up to \$200.0 million of additional funds through an increase to the Revolving Credit Facility, through incremental term loans, or some combination thereof. As of December 31, 2017, we had total indebtedness of \$277.0 million, comprised entirely of revolving credit loans under the Revolving Credit Facility. These revolving credit loans are due upon the earliest to occur of (a) April 18, 2022 (or, with respect to any lender, such later date as requested by us and accepted by such lender), (b) the date of termination of the entire revolving credit commitment (as defined in the New Credit Agreement) by us, and (c) the date of termination of the revolving credit commitment. The New Credit Agreement makes us vulnerable to adverse general economic or industry conditions and increases in interest rates, as borrowings under our senior secured credit facilities are at variable rates; and limits our ability to obtain additional financing in the future for working capital or other purposes.

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In addition, the New Credit Agreement and related ancillary agreements with our lenders contain certain covenants that, among other things, restrict our ability to incur additional indebtedness, pay dividends and make other restricted payments, repurchase shares of outstanding stock, create certain liens and engage in certain types of transactions. Our ability to borrow under the New Credit Agreement depends upon our compliance with the restrictions contained in the New Credit Agreement and events beyond our control could affect our ability to comply with these covenants.

Failure to perform under our contracts may adversely harm our business.

Certain contracts require us to meet specified performance criteria. Our ability to meet these criteria requires that we expend significant resources. If we or our subcontractors are unable to perform as required, we could be subject to substantial monetary penalties and/or loss of the affected contracts which may adversely affect our business.

Loss of key management or sales personnel could harm our business.

We have an experienced management team including general managers at our operating facilities and rely on the continued service of these senior managers to achieve our objectives. Our objective is to retain our present management and sales teams and identify, hire, train, motivate and retain other highly skilled personnel. The loss of any key management employee or sales personnel could adversely affect our business and results of operations.

A change or deterioration in labor relations could disrupt our business or increase costs, which could have a material adverse effect on our business, financial condition and results of operations.

The Company is a party to collective bargaining agreements covering approximately 300, or approximately 22%, of our employees. The agreements expire on May 31, 2018, November 30, 2020 and April 30, 2022, respectively. While we believe the Company will maintain good working relations with its employees on acceptable terms, there can be no assurance that we will be able to negotiate the terms of future agreements in a manner acceptable to the Company. Potential work disruptions from labor disputes may disrupt our businesses and adversely affect our financial condition and results of operations.

Our participation in multi employer pension plans may subject us to liabilities that could materially adversely affect our liquidity, cash flows and results of operations.

Certain of the Company's wholly owned subsidiaries participate in multi employer defined benefit pension plans under the terms of collective bargaining agreements covering most of the subsidiaries' union employees. To the extent that those plans are underfunded, the Employee Retirement Income Security Act of 1974, as amended by the Multi Employer Pension Plan Amendments Act of 1980 ("ERISA"), may subject us to substantial liabilities if we withdraw from such multi employer plans or if they are terminated. Under current law regarding multi employer defined benefit plans, a plan's termination, an employer's voluntary partial or complete withdrawal from, or the mass withdrawal of all contributing employers from, an underfunded multi employer defined benefit plan requires participating employers to make payments to the plan for their proportionate share of the multi employer plan's unfunded vested liabilities. Furthermore, the Pension Protection Act of 2006 added new funding rules generally applicable to plan years beginning after 2007 for multi employer plans that are classified as "endangered," "seriously endangered," or "critical" status. If plans in which we participate are in critical status, benefit reductions may apply and/or we could be required to make additional contributions. Contributions to these funds could also increase as a result of future collective bargaining with the unions, a shrinking contribution base as a result of the insolvency of other companies who currently contribute to these funds, failure of the Plan to meet ERISA's minimum funding requirements, lower than expected returns on pension fund assets, or other funding deficiencies. Any of the foregoing events could materially adversely affect our liquidity, cash flows and results of operations.

Based upon the information available to us from plan administrators as of April 30, 2017, certain of the multi employer pension plans in which we participate are underfunded. The Pension Protection Act requires that underfunded pension plans improve their funding ratios within prescribed intervals based on the level of their underfunding. In addition, if a multi employer defined benefit plan fails to satisfy certain minimum funding requirements, the Internal Revenue Service may impose a nondeductible excise tax of 5% on the amount of the accumulated funding deficiency for those employers contributing to the fund. We have been notified that certain plans to which our subsidiaries contribute are in “critical”

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status and these plans may require additional contributions in the form of a surcharge on future benefit contributions required for future work performed by union employees covered by these plans. As a result, we expect our required contributions to these plans to increase in the future. The amount of additional funds we may be obligated to contribute in the future cannot be estimated, as such amounts will be based on future levels of work that require the specific use of the union employees covered by these plans, investment returns and the level of underfunding of such plans.

We may not be able or willing to pay future dividends.

Our ability to pay dividends is subject to our future financial condition and certain conditions such as continued compliance with covenants contained in the New Credit Agreement. Our Board of Directors must also approve any dividends at their sole discretion. Pursuant to the New Credit Agreement, we may only declare quarterly or annual dividends if on the date of declaration, no event of default has occurred and no other event or condition has occurred that would constitute an event of default due to the payment of the dividend. Unforeseen events or situations could cause non-compliance with these covenants, or cause the Board of Directors to discontinue or reduce the amount of any future dividend payment.

Future stock issuances could adversely affect common stock ownership interest and rights in comparison with those of other security holders.

Our Board of Directors has the authority to issue additional shares of common stock or preferred stock without stockholder approval. If additional funds are raised through the issuance of equity or securities convertible into common stock, or we use shares of our common stock to pay a portion of the purchase price in any future acquisition, the percentage of ownership of our existing stockholders would be reduced, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we issue additional common stock or securities convertible into common stock, such issuance would reduce the proportionate ownership and voting power of each other stockholder. In addition, such stock issuances might result in a reduction of the book value of our common stock.

Anti-takeover provisions in our organizational documents and under Delaware law may impede or discourage a takeover, which could cause the market price of our common stock to decline.

We are a Delaware corporation, and the anti-takeover provisions of Delaware law impose various impediments to the ability of a third party to acquire control of us, even if a change in control would be beneficial to our existing stockholders, which, under certain circumstances, could reduce the market price of our common stock. In addition, protective provisions in our Restated Certificate of Incorporation and Amended and Restated Bylaws or the implementation by our Board of Directors of a stockholder rights plan could prevent a takeover, which could harm our stockholders.

The price of our common stock has fluctuated in the past and this may make it difficult for stockholders to resell shares of common stock at times or may make it difficult for stockholders to sell shares of common stock at prices they find attractive.

The trading price of our common stock may fluctuate widely as a result of a number of factors, many of which are outside our control. In addition, the stock market is subject to fluctuations in share prices and trading volumes that affect the market prices of the shares of many companies. These broad market fluctuations have adversely affected, and may in the future adversely affect, the market price of our common stock. Among the factors that could affect our stock price are:

- changes in financial estimates and buy/sell recommendations by securities analysts or our failure to meet analysts' revenue or earnings estimates;
- actual or anticipated variations in our operating results;
- our earnings releases and financial performance;
- market conditions in our industry and the general state of the securities markets;



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- fluctuations in the stock price and operating results of our competitors;
- actions by institutional stockholders;
- investor perception of us and the industry and markets in which we operate;
- general economic conditions in the United States and Canada;
- international disorder and instability in foreign financial markets, including but not limited to potential sovereign defaults; and
- other factors described in “Risk Factors.”

A cybersecurity incident could negatively impact our business and our relationships with customers.

We use computers in substantially all aspects of our business operations. We also use mobile devices and other online activities to connect with our employees and our customers. Such uses of technology 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. Further, if the Company in the future pursues acquisitions or new initiatives that require expanding or improving our information technologies, this may result in a larger technological presence and corresponding exposure to cybersecurity risk. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks. Further, despite these security measures, the Company’s computer systems and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance, or other disruptions. Additionally, while we have implemented measures to prevent security breaches and cyber incidents, our preventative measures and incident response efforts may not be entirely effective. The theft, destruction, loss, misappropriation, or release of sensitive and/or confidential information or intellectual property, or interference with our information technology systems or the technology systems of third parties on which we rely, could result in business disruption, negative publicity, brand damage, violation of privacy laws, loss of customers, potential liability and competitive disadvantage.

### Additional Risks of Our Environmental Services Business

A significant portion of our business depends upon non-recurring event cleanup projects over which we have no control.

A significant portion of our disposal revenue is attributable to discrete Event Business which varies widely in size, duration and unit pricing. For the year ended December 31, 2017, approximately 22% of our T&D revenue was derived from Event Business projects. The one-time nature of Event Business, diverse spectrum of waste types received and widely varying unit pricing necessarily creates variability in revenue and earnings. This variability may be influenced by general and industry-specific economic conditions, funding availability, changes in laws and regulations, government enforcement actions or court orders, public controversy, litigation, weather, commercial real estate, closed military bases and other project timing, government appropriation and funding cycles and other factors. This variability can cause significant quarter-to-quarter and year-to-year differences in revenue, gross profit, gross margin, operating income and net income. Also, while we pursue many large projects months or years in advance of work performance, both large and small cleanup project opportunities routinely arise with little or no prior notice. These market dynamics are inherent to the waste disposal business and are factored into our projections and externally communicated business outlook statements. Our projections combine historical experience with identified sales pipeline opportunities, new or expanded service line projections and prevailing market conditions. A reduction in the number and size of new cleanup projects won to replace completed work could have a material adverse effect on our financial condition and results of operations.



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If we are unable to obtain regulatory approvals and contracts for construction of additional disposal space by the time our current disposal capacity is exhausted, our business would be adversely affected.

Construction of new disposal capacity at our operating disposal facilities beyond currently permitted capacity requires state and provincial regulatory agency approvals. Administrative processes for such approval reviews vary. The State of Texas, which regulates our Robstown facility, provides for an adjudicatory hearing process administered by a hearing officer appointed by the State. There can be no assurance that we will be successful in obtaining future expansion approvals in a timely manner or at all. If we are not successful in receiving these approvals, our disposal capacity could eventually be exhausted, preventing us from accepting additional waste at an affected facility. This would have a material adverse effect on our business.

If we are unable to renew our operating permits or lease agreements with regulatory bodies, our business would be adversely affected.

Our facilities operate using permits and licenses issued by various regulatory bodies at various state, provincial and federal government levels. In addition, three of our facilities operate on land leased from government agencies. Failure to renew our permits and licenses necessary to operate our facilities or failure to renew or maintain compliance with our site lease agreements would have a material adverse effect on our business. There can be no assurance we will continue to be successful in obtaining timely permit applications approval, maintaining compliance with our lease agreements and obtaining timely lease renewals.

Our business requires the handling of dangerous substances. Improper handling of such substances could result in an adverse impact on our financial condition and results of operations.

We are subject to unexpected occurrences related, or unrelated, to the routine handling of dangerous substances. A fire or other incident could impair the ability of one or more facilities to continue to perform normal operations, which could have a material adverse impact on our financial condition and results of operations. Improper handling of these substances could also violate laws and regulations resulting in fines and/or suspension of operations.

If we are unable to obtain at a reasonable cost or under reasonable terms and conditions the necessary levels of insurance and financial assurances required for operations, our business and results of operations would be adversely affected.

We are required by law, license, permit and prudence to maintain various insurance instruments and financial assurances. We carry a broad range of insurance coverages that we believe are customary for a company of our size in our business. We obtain these coverages to mitigate risk of loss, allowing us to manage our self insured exposure from potential claims. We are self insured for employee health care coverage. Stop loss insurance is carried covering liability on claims in excess of \$200,000 per individual. Accrued costs related to the self insured health care coverage were \$1.1 million and \$1.0 million at December 31, 2017 and 2016, respectively. We also maintain a Pollution and Remediation Legal Liability Policy pursuant to RCRA regulations subject to a \$250,000 self insured retention. In addition, we are insured for consultant's environmental liability subject to a \$100,000 self insured retention. We are also insured for losses or damage to third party property or people subject to a \$100,000 self insured retention. If our insurers were unable to meet their obligations, or our own obligations for claims were more than expected, there could be a material adverse effect to our financial condition and results of operation.

Through December 31, 2017, we have met our financial assurance requirements through a combination of insurance policies, commercial surety bonds and trust funds. Our insurance policies covering closure and post closure activities expire in April 2018 and December 2018 for covered U.S. operating facilities (dedicated state controlled closure and post closure funds provide financial assurance for our Washington and Nevada facilities). We continue to use

self funded trust accounts for our post closure obligations at our U.S. non operating sites. We use commercial surety bonds for our Canadian operations that expire in November and December 2018, respectively. We currently have in place all financial assurance instruments necessary for our operations. While we expect to continue renewing these policies and surety bonds, if we were unable to obtain adequate closure, post closure or environmental insurance, bonds or other instruments in the future, any partially or completely uninsured claim against us, if successful and of sufficient magnitude, could have a

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material adverse effect on our results of operations and cash flows. Additionally, continued access to casualty and pollution legal liability insurance with sufficient limits, at acceptable terms, is important to obtaining new business. Failure to maintain adequate financial assurance could also result in regulatory action including early closure of facilities. As of December 31, 2017, we have provided collateral of \$5.8 million in funded trust agreements, \$12.0 million in surety bonds, issued \$2.7 million in letters of credit for financial assurance and have insurance policies of approximately \$87.4 million for closure and post closure obligations at covered U.S. operating facilities. We have \$752,000 in commercial surety bonds dedicated for closure obligations at our Canadian operating facility. While we believe we will be able to maintain the requisite financial assurance policies at a reasonable cost, premium and collateral requirements may materially increase. Such increases could have a material adverse effect on our financial condition and results of operations.

The hazardous and radioactive waste industries in which we operate are subject to litigation risk.

The handling of radioactive, PCBs and hazardous material subjects us to potential liability claims by employees, contractors, property owners, neighbors and others. There can be no assurance that our existing liability insurance is adequate to cover claims asserted against us or that we will be able to maintain adequate insurance in the future. Adverse rulings in judicial or administrative proceedings could also have a material adverse effect on our financial condition and results of operations.

We may not be able to obtain timely or cost effective transportation services which could adversely affect our profitability.

Revenue at each of our facilities is subject to potential risks from disruptions in rail or truck transportation services relied upon to deliver waste to our facilities. Increases in fuel costs and unforeseen events such as labor disputes, public health pandemics, severe weather, natural disasters and other acts of God, war or terror could prevent or delay shipments and reduce both volumes and revenue. Our rail transportation service agreements with our customers generally allow us to pass on fuel surcharges assessed by the railroads. This may decrease or eliminate our exposure to fuel cost increases. Transportation services may be limited by economic conditions, including increased demand for rail or trucking services, resulting in periods of slower service to the point that individual customer needs cannot be met. No assurance can be given that we can procure transportation services in a timely manner at competitive rates or pass through fuel cost increases in all cases. Such factors could also limit our ability to achieve revenue and earnings objectives.

We may not be able to effectively adopt or adapt to new or improved technologies.

We expect to continue implementing new or improved technologies at our facilities to meet customer service demands and expand our business. If we are unable to identify and implement new technologies in response to market conditions and customer requirements in a timely, cost effective manner, our financial condition and results of operations could be adversely impacted.

Our financial results could be adversely affected by foreign exchange fluctuations.

We operate in the United States and Canada but report revenue, costs and earnings in U.S. dollars. Exchange rates between the U.S. dollar and the Canadian dollar are likely to fluctuate from period to period. Because our financial results are reported in U.S. dollars, we are subject to the risk of non-cash translation losses for reporting purposes. If we continue to expand our international operations, we will conduct more transactions in currencies other than the U.S. dollar. To the extent that foreign revenue and expense transactions are not denominated in the local currency, we are further subject to the risk of transaction losses. We have not entered into derivative instruments to offset the impact of foreign exchange fluctuations. Fluctuations in foreign currency exchange rates could have a material

adverse effect on our financial condition and results of operations.

We are subject to risks associated with operating in a foreign country.

Our Canadian subsidiaries' facilities are located in Blainville, Québec and Tilbury, Ontario, Canada and use the Canadian dollar as their functional currency. International operations are subject to risks that may have material adverse effects on

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our financial condition and results of operations. The risks that our international operations are subject to include, among other things:

- difficulties and costs relating to staffing and managing foreign operations;
- foreign labor union relations;
- fluctuations in the value of the Canadian dollar;
- repatriation of cash from Canadian subsidiaries to the United States;
- imposition of additional taxes on our foreign income; and
- regulatory, economic and public policy changes.

### Additional Risks of Our Field & Industrial Services Business

A significant portion of our Field & Industrial Services segment depends upon the demand for cleanup of spills and other remedial projects and regulatory developments over which we have no control.

A significant portion of our Field & Industrial Services segment consists of remediation, recycling, industrial cleaning and maintenance, transportation, total waste management, technical services, and emergency response services. Demand for these services can be affected by the commencement and completion of cleanup of major spills and other events, customers' decisions to undertake remedial projects, seasonal fluctuations due to weather and budgetary cycles influencing the timing of customers' spending for remedial activities, the timing of regulatory decisions relating to hazardous waste management projects, changes in regulations governing the management of hazardous waste, changes in the waste processing industry towards waste minimization and the propensity for delays in the demand for remedial services, and changes in governmental regulations relevant to our diverse operations. We do not control such factors and, as a result, our revenue and income can vary from quarter to quarter or year to year, and past financial performance may not be a reliable indicator of future performance.

### Additional Risks of Completed and Potential Acquisitions

Acquisitions that we undertake could be difficult to integrate, disrupt our business, dilute stockholder value and adversely affect our results of operations.

Acquisitions involve multiple risks. Our inability to successfully integrate an acquired business could have a material adverse effect on our financial condition and results of operations. These risks include but are not limited to:

- failure of the acquired company to achieve anticipated revenues, earnings or cash flows;
- assumption of liabilities, including those related to environmental matters, that were not disclosed to us or that exceed our estimates;
- problems integrating the purchased operations with our own, which could result in substantial costs and delays or other operational, technical or financial problems;
- potential compliance issues relating to the protection of health and the environment, compliance with securities laws and regulations, adequacy of internal controls and other matters;
  - diversion of management's attention or other resources from our existing business;
- risks associated with entering markets or product/service areas in which we have limited prior experience;

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- increases in working capital investment to fund the growth of acquired operations;
- unexpected capital expenditures to upgrade waste handling or other infrastructure or replace equipment to operate safely and efficiently;
- potential loss of key employees and customers of the acquired company; and
- future write offs of intangible and other assets, including goodwill, if the acquired operations fail to generate sufficient cash flows.

If we are not able to achieve these objectives, the anticipated benefits of the acquisition may not be realized fully, if at all, or may take longer to realize than expected. It is possible that the integration process could result in the loss of key employees, the disruption of our ongoing business, failure to implement the business plan for the combined businesses, unanticipated issues in integrating service offerings, logistics information, communications and other systems or other unanticipated issues, expenses and liabilities, any or all of which could adversely affect our ability to maintain relationships with customers and employees or to achieve the anticipated benefits of the acquisition.

In the event that we undertake future acquisitions, we may not be able to successfully execute our acquisition strategy.

We may experience delays in making acquisitions or be unable to make acquisitions we desire for a number of reasons. Suitable acquisition candidates may not be available at purchase prices that are attractive to us or on terms that are acceptable to us. In pursuing acquisition opportunities, we typically compete with other companies, some of which have greater financial and other resources than we do. We may not have available funds or common stock with a sufficient market price to complete an acquisition. If we are unable to secure sufficient funding for potential acquisitions, we may not be able to complete acquisitions that we otherwise find advantageous.

The timing and number of acquisitions we pursue may cause volatility in our financial results.

We are unable to predict the size, timing and number of acquisitions we may complete, if any. In addition, we may incur expenses associated with sourcing, evaluating and negotiating acquisitions (including those that are not completed), and we also may pay fees and expenses associated with financing acquisitions to investment banks and others. Any of these amounts may be substantial, and together with the size, timing and number of acquisitions we pursue, may negatively impact and cause significant volatility in our financial results and the price of our common stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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## ITEM 2. PROPERTIES

The following table describes our principal physical properties and facilities at December 31, 2017 owned or leased by us. We believe that our existing properties are in good condition and suitable for conducting our business.

Location	Segment	Function	Own/Lease
Beatty, Nevada	Environmental Svcs.	Waste treatment and landfill disposal	Lease
Robstown, Texas	Environmental Svcs.	Waste treatment, landfill disposal and recycling	Own
Grand View, Idaho	Environmental Svcs.	Waste treatment and landfill disposal	Own
Belleville, Michigan	Environmental Svcs.	Waste treatment and landfill disposal	Own
Blainville, Québec, Canada	Environmental Svcs.	Waste treatment and landfill disposal	Own/Lease
Richland, Washington	Environmental Svcs.	Landfill disposal	Sublease
Detroit, Michigan	Environmental Svcs.	Waste treatment	Own
Canton, Ohio	Environmental Svcs.	Waste treatment and recycling	Own
Harvey, Illinois	Environmental Svcs.	Waste treatment	Own
York, Pennsylvania	Environmental Svcs.	Waste treatment	Own
Tulsa, Oklahoma	Environmental Svcs.	Waste treatment	Own
Romulus, Michigan	Environmental Svcs.	Recycling	Own
Mt. Airy, North Carolina	Environmental Svcs.	Waste treatment	Own
Tilbury, Ontario, Canada	Environmental Svcs.	Waste treatment	Own
Vernon, California	Environmental Svcs.	Waste treatment	Own
Sulligent, Alabama	Field & Industrial Svcs.	Field and industrial waste management	Own
Tampa, Florida	Field & Industrial Svcs.	Field and industrial waste management	Own
Taylor, Michigan	Field & Industrial Svcs.	Field and industrial waste management	Own
Bayonne, New Jersey	Field & Industrial Svcs.	Field and industrial waste management	Lease
Atlanta, Georgia	Field & Industrial Svcs.	Field and industrial waste management	Lease
Wrentham, Massachusetts	Field & Industrial Svcs.	Field and industrial waste management	Own
Boise, Idaho	Corporate	Corporate Office	Lease
Livonia, Michigan	Corporate	Regional Office	Lease

In addition to the principal physical properties detailed in the table above, the Company owns or leases a number of smaller (less than 20,000 sq. ft.) properties supporting our Field & Industrial Services segment.

The following table provides additional information for our treatment facilities with onsite landfills including total acreage owned or controlled by us at each facility, estimated amount of permitted airspace available at each facility, the estimated amount of non permitted airspace and the estimated life at each facility. All estimates are as of December 31, 2017.

Location	Total Acreage	Permitted Airspace (Cubic Yards)	Non Permitted Airspace (Cubic Yards)	Estimated Life (Years)
Beatty, Nevada(1)	480	8,372,147	—	33
Robstown, Texas(2)	873	658,713	—	2
Grand View, Idaho(3)	1,411	10,354,623	18,100,000	233

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Belleville, Michigan(4)	455	11,829,818	—	30
Blainville, Québec, Canada(5)	350	5,432,637	—	29
Richland, Washington(6)	100	547,125	—	38
Total		37,195,063	18,100,000	

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(1) Our Beatty, Nevada facility, which began receiving hazardous waste in 1970, is located in the Amargosa Desert approximately 120 miles northwest of Las Vegas, Nevada and approximately 30 miles east of Death Valley, California. The facility operates through an operating agreement with the State of Nevada on 480 acres owned by the State. In 2016, the facility secured permit modifications from the Nevada Division of Environmental Protection and the USEPA authorizing the construction of a new landfill unit at the facility. The first phase of this new landfill was

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completed in 2017. In April 2007, we renewed our lease with the State of Nevada as a year to year periodic tenancy until (i) that area reaches full capacity and can no longer accept waste (an estimated life of 33 years using 2017 volume); (ii) the lease is terminated by us at our option; or (iii) the State terminates the lease due to our breach of the lease terms. The State of Nevada assesses disposal fees to fund a dedicated trust account to pay for future closure and post closure costs.

- (2) Our Robstown, Texas facility began operations in 1973. It is located on 240 acres owned by the Company approximately 10 miles west of Corpus Christi, Texas. We own an additional 633 acres of adjacent land for future expansion. We also own 174 acres of land five miles west of the facility adjacent to a rail line where we have operated a rail transfer station since 2006. In January 2018, the Texas Commission of Environmental Quality approved our permit for landfill expansion onto 180 acres of our adjacent land that we anticipate will add approximately 10 million cubic yards, or 30 years, of future airspace.
- (3) Our Grand View, Idaho facility, purchased in 2001, is located on 1,252 acres of Company owned land approximately 60 miles southeast of Boise, Idaho in the Owyhee Desert. We own an additional 159 acres approximately two miles east of the facility that provides a clay source for site operations (liner construction and waste treatment). We also own 189 acres where our rail transfer station is located approximately 30 miles northeast of the disposal facility. This site has two enclosed rail to truck waste transfer facilities located adjacent to the main line of the Union Pacific Railroad.
- (4) Our Belleville, Michigan facility began operations in 1957 and began disposing of waste in the onsite landfill in 1969. The facility is located on 455 acres owned by the Company approximately 30 miles from Detroit, Michigan. We also own 12 acres of land nine miles from the facility adjacent to a rail line where we have operated a rail transfer station since 1998.
- (5) Our Blainville, Québec, Canada facility has been in operation since 1983 and is located approximately 30 miles northwest of Montreal, Québec, Canada. The facility includes an indoor hazardous and industrial waste treatment and storage facility and a rail transfer station located on 25 acres adjacent to a 325 acre disposal site. The treatment processing facility is on land owned by the Company. The disposal site which is adjacent to the owned treatment processing facility is leased from the Province of Québec with a term through 2018 and one five year renewal option. The site is permitted to accept up to 875,000 metric tons (962,500 U.S. tons) over the five year permit period. Of this amount, up to 350,000 metric tons (385,000 U.S. tons) can be accepted as soil. While there are no specific restrictions on waste soils received from the U.S., non soil waste received from the U.S. is limited to 350,000 metric tons (385,000 U.S. tons) over the five year permit period. The Province assesses fees to fund a dedicated government trust account to pay for post closure costs at the disposal site.
- (6) Our Richland, Washington LLRW facility has been in operation since 1965 and is located on 100 acres of land leased by the State of Washington from the federal government on the U.S. Department of Energy Hanford Reservation approximately 35 miles west of Richland, Washington. We sublease this property from the State of Washington. The lease between the State of Washington and the federal government expires in 2063. We renewed our sublease with the State in 2005 for ten years with four ten year renewal options, giving us control of the property until the year 2055 provided that we meet our obligations and operate in a compliant manner. The facility's intended operating life is equal to the period of the sublease. The State assesses user fees for local economic development, state regulatory agency expenses and a dedicated trust account to pay for long term care after the facility closes. The State maintains separate, dedicated trust funds for future closure and post closure costs.

**ITEM 3. LEGAL PROCEEDINGS**

In the ordinary course of business, we are involved in judicial and administrative proceedings involving federal, state, provincial or local governmental authorities, including regulatory agencies that oversee and enforce compliance with permits. Fines or penalties may be assessed by our regulators for non compliance. Actions may also be brought by individuals or groups in connection with permitting of planned facilities, modification or alleged violations of existing permits, or alleged damages suffered from exposure to hazardous substances purportedly released from our operated sites, as well as other litigation. We maintain insurance intended to cover property and damage claims asserted as a

result of our

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operations. Periodically, management reviews and may establish reserves for legal and administrative matters, or other fees expected to be incurred in relation to these matters.

We are not currently a party to any material pending legal proceedings and are not aware of any other claims that could, individually or in the aggregate, have a materially adverse effect on our financial position, results of operations or cash flows.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

## Common Stock Price

Our common stock is listed on the NASDAQ Global Select Market under the symbol ECOL. As of January 17, 2018, there were approximately 14,079 beneficial owners of our common stock. High and low sales prices for the common stock for each quarter in the last two years are shown below:

	2017		2016	
	High	Low	High	Low
First Quarter	\$ 54.00	\$ 44.95	\$ 44.68	\$ 29.89
Second Quarter	\$ 52.90	\$ 44.95	\$ 49.39	\$ 40.62
Third Quarter	\$ 55.00	\$ 45.85	\$ 48.84	\$ 42.13
Fourth Quarter	\$ 55.75	\$ 44.50	\$ 50.25	\$ 38.00

## Dividend History

We have paid the following dividends on our common stock (\$s in thousands except per share amounts):

	2017		2016	
	Per share	Dollars	Per share	Dollars
First Quarter	\$ 0.18	\$ 3,922	\$ 0.18	\$ 3,918
Second Quarter	0.18	3,927	0.18	3,917
Third Quarter	0.18	3,929	0.18	3,919
Fourth Quarter	0.18	3,933	0.18	3,919
Total	\$ 0.72	\$ 15,711	\$ 0.72	\$ 15,673

On January 2, 2018, the Company declared a dividend of \$0.18 per common share for stockholders of record on January 19, 2018. The dividend was paid from cash on hand on January 26, 2018 in an aggregate amount of \$3.9 million.

Pursuant to the New Credit Agreement, we may only declare quarterly or annual dividends if on the date of declaration, no event of default has occurred and no other event or condition has occurred that would constitute an event of default due to the payment of the dividend. No events of default under the New Credit Agreement have occurred to date.

#### Stock Performance Graph

The following graph compares the five year cumulative total return on our common stock with the comparable five year cumulative total returns of the NASDAQ Composite Index and Dow Jones Waste & Disposal Services Index for the period

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from the end of fiscal 2012 to the end of fiscal 2017. The stock price performance shown below is not necessarily indicative of future performance.

Comparison of Cumulative Total Stockholder Return(1) Among

US Ecology, Inc., NASDAQ Composite Index and

Dow Jones Waste & Disposal Services Index