US ECOLOGY, INC.
Form 10-K
February 28, 2019
Table of Contents

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, 2018
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 incorporation or organization)	(I.R.S. Employer 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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 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 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, 2018 was approximately $1.39 billion based on the closing price of $63.70 per share as reported on the NASDAQ Global Market System.

At February 20, 2019, there were 22,070,243 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 21, 2019 to be filed within 120 days after the registrant's fiscal year ended December 31, 2018, portions of which are incorporated by reference into Part III of this Form 10 K.

Table of Contents

US ECOLOGY, INC.

FORM 10 K

TABLE OF CONTENTS

Table of Contents

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
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 an accident at one of our facilities, incidents resulting from the handling of dangerous substances, the loss or failure to renew significant contracts, competition in our markets, adverse economic conditions, our compliance with applicable laws and regulations, the realization of anticipated benefits from acquired operations, our ability to perform under required contracts, limitations on our available cash flow as a result of our indebtedness, liabilities arising from our participation in multi-employer pension plans, cyber security threats, unanticipated changes in tax rules and regulations, loss of key personnel, a deterioration in our labor relations or labor disputes, our ability to pay dividends or repurchase stock, anti-takeover regulations, stock market volatility, our access to insurance, surety bonds and other financial assurances, our litigation risk not covered by insurance, the replacement of non-recurring event projects, our ability to permit and contract for timely construction of new or expanded disposal space, renewals of our operating permits or lease agreements with regulatory bodies, our ability or the timing of reconstructing and receiving regulatory approvals for the reopening of the Grand View, Idaho treatment facility, the timing or amount of insurance recoveries associated with the reconstruction and business interruption losses for the Grand View, Idaho treatment facility, our access to cost-effective transportation services, lawsuits, our implementation of new technologies, fluctuations in foreign currency markets and foreign affairs.

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.

3

Table of Contents

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 65 years. As of December 31, 2018, we employed approximately 1,700 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 or can be obtained by accessing the SEC’s website at www.sec.gov. The information found on our website is not part of this or any other report we file with or furnish to the SEC.

We have fixed facilities and service centers operating in the United States, Canada and Mexico. Our fixed facilities include five RCRA subtitle C 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 transport, recycle, treat and dispose of waste and to perform various field and industrial services for our customers.

Table of Contents

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, non hazardous and radioactive waste at Company owned landfill, wastewater, deep-well injection 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 field services such as industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, emergency response and other services to commercial and industrial facilities and to government entities.

Environmental Services Segment

Our Environmental Services involve the transportation, treatment, recycling and disposal of hazardous, non hazardous and radioactive wastes, and include physical treatment, recycling, landfill and deep-well injection 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, 2018, the capacity used in the calculation of the useful economic lives of our six landfills includes approximately 45.5 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."

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 80% and 78% of disposal revenue (excluding transportation) for the years ended December 31, 2018 and 2017, respectively. Event Business contributed approximately 20% and 22% of disposal revenue (excluding transportation) for the years ended December 31, 2018 and 2017, respectively.

Table of Contents

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, 2018, approximately 20% 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.

Deep-Well Injection

We operate a caprock injection well in the southern United States with full Class 1 and 2 non-hazardous industrial waste disposal capabilities. Utilizing proprietary low pressure injection technology, the deep-well asset provides the unique ability to efficiently dispose of difficult to treat non-hazardous industrial waste streams, including high metals, high ammonia, high solids, flammable exempt, and leachate. Based on an independent determination of the injection capacity of the caprock formation in which we inject waste and our own estimates of projected injection volumes, we believe the remaining disposal capacity of the formation will be sufficient to meet our disposal needs for the foreseeable future.

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.

Table of Contents

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

Location	Onsite Disposal	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(1)	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.
Winnie, Texas	Yes	Non-hazardous deep-well injection operations for disposal of Class 1 and Class 2 waste water, leachate and solids. Facility is permitted for solid waste processing and storage. Deep-wells are Under Ground Control (“UIC”) permitted units.
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.

(1) An explosion occurred at our Grand View, Idaho facility on November 17, 2018, which resulted in the entire facility’s closure through January 2019. The Grand View, Idaho facility resumed limited operations in February 2019.

Table of Contents

Recycling Services

We operate recycling technologies designed to reclaim valuable commodities from hazardous waste, including oil bearing waste, metal bearing waste, batteries, electronics, airport deicing fluid and other solvent based wastes for industrial clients. The recycling and reclamation process involves the treatment of wastes using various recovery 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. 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 and other organic and oil-based waste. The recycled oil and recycled catalyst are sold to third parties.

Transportation

For waste transported by rail from locations distant from our facilities, transportation related revenue can vary significantly and can account for as significant portion 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 industrial cleaning and maintenance, remediation, lab pack, transportation 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, 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.

8

Table of Contents

Remediation Services

Our remediation service offerings include project management, RCRA and TSCA closures, excavations, wastewater management, building decontamination, landfill capping and 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 remediation, 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.

Table of Contents

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 such as a landfill, surface impoundment or deep-well injection. 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 and non-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 will also continue to advance plans and business lines that promote sustainable recycling technologies and expect the recycling portion of our business to displace some of our base disposal services over time. 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 the 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, recycling 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

10

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:

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, incentive programs and the Safety & Health Achievement Recognition Program. Various US Ecology facilities have obtained third-party verification of Environmental Health and Safety programs through the Occupational Safety and Health Administration’s (“OSHA”) Voluntary Protection Program (“VPP”) or ISO 45001 and ISO 14001 accreditation. Senior managers regularly review and discuss environmental and safety results and performance 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 EQ Holdings, Inc. (“EQ”) in 2014, 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 and ES&H of Dallas, LLC (“ES&H Dallas”) and Ecoserv Industrial

Disposal, LLC ("Winnie") in 2018. 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 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 2018, we serviced more than 3,500 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 professionals who oversee and manage safety and environmental programs including, but not limited to, employee training, internal and independent external audits, incentive programs and the Safety & Health Achievement Recognition Program. Various US Ecology facilities have obtained third-party verification of Environmental Health and Safety programs through OSHA’s VPP or ISO 45001 and ISO 14001 accreditation. Senior managers regularly review and discuss environmental and safety results and performance with operational staff, management and the Board of Directors to improve our safety results and focus on regulatory compliance.

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, 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;

Table of Contents

· regulatory compliance and worker safety;
· 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.

13

Table of Contents

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 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 Stablex 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.

Table of Contents

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.

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, business interruption and other coverage customary for a company of our size in our business. We purchase primary property, casualty and excess liability policies through traditional third party insurance carriers. We are self insured for employee health care coverage.

Our domestic casualty insurance program provides coverage for commercial general liability, employer's liability and automobile liability in the aggregate amount of $36.0 million each, per year, subject to a $100,000 retention per occurrence for our commercial general liability; a $350,000 deductible per occurrence for employer's liability and a $100,000 deductible per occurrence for our automobile liability. Our workers compensation insurance limits are established by state statutes. Our Canadian casualty insurance program provides primary coverage for commercial general liability and automobile liability in the aggregate amount of $36.0 million each, per year, subject to a $50,000 retention for general liability and no retention for automobile liability.

Our domestic property program provides coverage for real and personal property, business interruption and contractors' equipment with a loss limit of $35.0 million, subject to a deductibles ranging from $500,000 to $1.0 million per occurrence for property and business interruption and $10,000 to $25,000 for contractors' equipment. The program also includes flood, earthquake and wind coverage within the loss limit with a deductible ranging from $500,000 to $1.0 million subject to a percentage of value that ranges from 2% to 5%. We also maintain a separate boiler and machinery program with a loss limit of $100.0 million for property damage and business interruption subject to a $10,000 deductible or 24-hour waiting period specific to business interruption. For our California facility, we maintain an additional $10.0 million of coverage for earthquakes with a deductible ranging from $25,000 to $50,000 subject to a percentage of value that ranges from 3% to 5%. Our Canadian property program provides coverage for real and personal property, business interruption and contractors' equipment with a loss limit of $70.0 million subject to a $50,000 deductible per occurrence. The program also includes flood and earth-movement coverage within the loss limits with deductibles of $50,000 for flood and 5% of the value for earth movement, subject to a $250,000 minimum per occurrence. We also maintain a separate Canadian boiler and machinery program with a loss limit of $74.0 million subject to a $25,000 deductible per occurrence and a 48-hour waiting period for business interruption.

On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility's primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. We resumed limited operations at our Grand View, Idaho facility in February 2019. We maintain workers' compensation insurance, business interruption insurance and liability insurance for personal injury, property and casualty damage. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. As a result, our insurance policies may not fully compensate us for these losses.

Federal, state and provincial 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

Table of Contents

from waste generators to fund dedicated, state controlled escrow or trust accounts during the operating life of the facility. Through December 31, 2018, 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 2019 and December 2019. As of December 31, 2018, we have provided collateral of $4.9 million in funded trust agreements, $12.2 million in surety bonds, issued $2.7 million in letters of credit for financial assurance and have insurance policies of approximately $87.5 million for closure and post closure obligations. 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, 2018, we had $715,000 in commercial surety bonds dedicated for closure obligations.

Primary casualty insurance programs generally do not cover accidental environmental contamination losses. Our domestic and Canadian pollution liability programs provide coverage for these types of losses in the aggregate amount of $50.0 million and $20.0 million per year, respectively, each subject to a $250,000 deductible per occurrence. We also carry domestic and Canadian professional environmental consultant's liability insurance in the aggregate amount of $25.0 million and $5.0 million per year, respectively. The domestic program is subject to a $100,000 retention per occurrence and the Canadian program is subject to a $25,000 deductible per occurrence. We also have a standalone RCRA site specific pollution liability policy in the aggregate amount of $35.0 million subject to a $250,000 deductible per occurrence.

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.

Significant Customers

No customer accounted for more than 10% of total revenue for the years ended December 31, 2018, 2017, or 2016.

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, 2018, we had approximately 1,700 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 an executive officer of US Ecology:

Name	Age	Title
Jeffrey R. Feeler	49	President and Chief Executive Officer
Simon G. Bell	48	Executive Vice President and Chief Operating Officer
Eric L. Gerratt	48	Executive Vice President, Chief Financial Officer and Treasurer
Steven D. Welling	60	Executive Vice President of Sales and Marketing

Andrew P. Marshall	52	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

Table of Contents

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 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 of 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.

Table of Contents

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

An accident at any one of our facilities may result in significant litigation or the imposition of fines as a result of regulatory investigations, as well as the loss of business, profits or customers, which may not be fully covered by our insurance policies.

On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility's primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. We resumed limited operations at our Grand View, Idaho facility in February 2019. In addition to initiating and conducting our own investigation into the incident, we are fully cooperating with the Idaho Department of Environmental Quality ("IDEQ"), the USEPA and OSHA to support their comprehensive and independent investigations of the incident. As we continue to investigate the cause of the incident, we are evaluating its impact, but, at this time, we are unable to predict the timing and outcome of the investigation. As such, we cannot presently estimate the potential liability, if any, related to the incident therefore no amounts related to such claims have been recorded in our financial statements as of December 31, 2018. We have not been named as a defendant in any action relating to the incident. We maintain workers' compensation insurance, business interruption insurance and liability insurance for personal injury, property and casualty damage. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. Accordingly, our insurance policies may not fully compensate us for these losses.

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.

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 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 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

Table of Contents

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. 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.

Table of Contents

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 $207.2 million, non-amortizing intangible assets of $46.5 million and amortizing intangible assets of $233.2 million at December 31, 2018. We are required to test goodwill and non-amortizing intangible assets at least annually to determine if impairment has occurred. We are also required to test goodwill and intangible assets if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. 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 in 2018, we recorded a $1.4 million goodwill impairment charge in our Mobile Recycling reporting unit and impairment charges of $1.8 million and $454,000 on the non-amortizing intangible assets and amortizing intangible assets, respectively, of our Mobile Recycling business.

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.

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.

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 “2017 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 2017 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, 2018, we had total indebtedness of

$364.0 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 2017 Credit Agreement) by us, and (c) the date of termination of the revolving credit commitment. The 2017 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.

In addition, the 2017 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 2017 Credit Agreement depends upon our compliance with the restrictions contained in the 2017 Credit Agreement and events beyond our control could affect our ability to comply with these covenants.

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, 2018, 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” 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.

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

Table of Contents

effective, and our implementation of various procedures and controls to monitor and mitigate security threats and to increase security for our information, facilities and infrastructure may result in increased capital and operating costs. Costs for insurance may also increase as a result of security threats, and some insurance coverage may become more difficult to obtain, if available at all.

Cybersecurity attacks in particular are becoming more sophisticated. We rely extensively on information technology systems, including internet sites, computer software, data hosting facilities and other hardware and platforms, some of which are hosted by third parties, to assist in conducting our business. Our technologies systems may become the target of cybersecurity attacks, including without limitation malicious software, attempts to gain unauthorized access to data and systems, and other electronic security breaches that could lead to disruptions in critical systems and materially and adversely affect us in a variety of ways: 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.

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, Mexico, 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. 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.

Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. The U.S. recently enacted significant tax reform, and certain provisions of the new law may adversely affect us. In addition, governmental tax authorities are increasingly scrutinizing the tax positions of companies. If the U.S. or Canadian tax authorities change applicable tax laws, our overall taxes could increase, and our business, financial condition or results of operations may be adversely impacted.

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 20%, of our employees. The agreements expire on November 30, 2020, April 30, 2022 and December 31, 2023, 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.

Table of Contents

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 2017 Credit Agreement. Our Board of Directors must also approve any dividends at their sole discretion. Pursuant to the 2017 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;
- 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;

Table of Contents

- 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.”

Additional Risks of Our Environmental Services Business

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 coverage, including general liability, automobile liability, real and personal property, workers compensation, directors and officers liability, environmental impairment liability, business interruption and other coverage customary for a company of our size in our business. We purchase primary property, casualty and excess liability policies through traditional third party insurance carriers to mitigate risk of loss. 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 $826,000 and $1.1 million at December 31, 2018 and 2017, respectively. 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, 2018, 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 2019 and December 2019 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 2019, 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 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, 2018, we have provided collateral of $4.9 million in funded trust agreements, $12.2 million in surety bonds, issued $2.7 million in letters of credit for financial assurance and have insurance policies of approximately $87.5 million for closure and post closure obligations at covered U.S. operating facilities. We have $715,000 in commercial surety bonds dedicated for closure obligations at our Canadian operating facility.

While we believe we will be able to renew and maintain all our insurance and 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.

We are subject to operating and litigation risks that may not be covered by insurance.

Our business operations are subject to all of the operating hazards and risks normally incidental to the handling, storage and disposal of combustible and other hazardous products. These risks could result in substantial losses due to personal injury and/or loss of life, and severe damage and destruction of property and equipment arising from explosions or other catastrophic events. As a result, we may become a defendant in legal proceedings and litigation arising in the ordinary course of business. Additionally, environmental contamination could result in future legal proceedings. There can be no assurance that our insurance coverage will be adequate to protect us from all material expenses related to pending and future claims or that such levels of insurance would be available in the future at economical prices, as described above.

Table of Contents

Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility (described above), may result in the loss of business, profits or customers during the time of such closure. As such, our insurance policies may not fully compensate us for these losses.

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, 2018, approximately 20% 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.

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. 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.

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 or labor costs, shortages of qualified drivers 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.

Table of Contents

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 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 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,

26

Table of Contents

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;
· 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

Table of Contents

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.

ITEM 2. PROPERTIES

The following table describes our principal physical properties and facilities at December 31, 2018 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(1)	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
Winnie, Texas	Environmental Svcs.	Waste processing and deep-well disposal	Own
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
Dallas, Texas	Field & Industrial Svcs.	Field and industrial waste management	Own

Midland, Texas	Field & Industrial Svcs.	Field and industrial waste management	Own
Boise, Idaho	Corporate	Corporate Office	Lease
Livonia, Michigan	Corporate	Regional Office	Lease

(1) An explosion occurred at our Grand View, Idaho facility on November 17, 2018, which resulted in the entire facility's closure through January 2019. The Grand View, Idaho facility resumed limited operations in February 2019.

Table of Contents

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, 2018.

Location	Total Acreage	Permitted Airspace (Cubic Yards)	Non Permitted Airspace (Cubic Yards)	Estimated Life (Years)
Beatty, Nevada(1)	480	8,139,634	—	35
Robstown, Texas(2)	873	10,422,212	—	44
Grand View, Idaho(3)	1,411	10,221,577	18,100,000	213
Belleville, Michigan(4)	455	11,494,787	—	34
Blainville, Québec, Canada(5)	350	5,190,912	—	20
Richland, Washington(6)	100	61,702	—	37
Total		45,530,825	18,100,000	

(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 on 480 acres owned by the State of Nevada. Our operations are governed by an operating agreement with the State, executed in April 2016, with an initial term of 20 years (and an optional 20-year extension), and a year-to-year periodic tenancy lease with the State, last amended in April 2007. 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 completed in 2017. 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, adding 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 2023. The site is permitted to accept up to 1,125,000 metric tons (1,237,500 U.S. tons) over the five year permit period ending in May 2023. 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., waste received from the U.S. is limited to 506,250 metric tons (556,875 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 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.

On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility's primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. We resumed limited operations at our Grand View, Idaho facility in February 2019. In addition to initiating and conducting our own investigation into the incident, we are fully cooperating with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. As we continue to investigate the cause of the incident, we are evaluating its impact, but, at this time, we are unable to predict the timing and outcome of the investigation. As such, we cannot presently estimate the potential liability, if any, related to the incident therefore no amounts related to such claims have been recorded in our financial statements as of December 31, 2018. We have not been named as a defendant in any action relating to the incident. We maintain workers' compensation insurance, business interruption insurance and liability insurance for personal injury, property and casualty damage. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. Accordingly, our insurance policies may not fully compensate us for these losses.

Other than described above, 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.

30

Table of Contents

PART II

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

Common Stock

Our common stock is listed on the NASDAQ Global Select Market under the symbol ECOL. As of January 23, 2019, there were approximately 19,537 beneficial owners of our common stock.

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 from the end of fiscal 2013 to the end of fiscal 2018. 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

Date	US Ecology, Inc.	Nasdaq Composite	Dow Jones US Waste & Disposal Services Index
December 31, 2013	$ 100.00	$ 100.00	$ 100.00
December 31, 2014	$ 109.97	$ 114.62	$ 113.75
December 31, 2015	$ 101.47	$ 122.81	$ 118.52
December 31, 2016	$ 139.29	$ 133.19	$ 143.58
December 31, 2017	$ 146.61	$ 172.11	$ 168.10
December 31, 2018	$ 183.23	$ 165.84	$ 168.29

(1) Total return assuming $100 invested on December 31, 2013 and reinvestment of dividends on the day they were paid.

Table of Contents

The performance graph above is being furnished solely to accompany this Annual Report on Form 10 K pursuant to Item 201(e) of Regulation S K, is not being filed for purposes of Section 18 of the Exchange Act, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Securities Authorized for Issuance Under Equity Compensation Plans

Information with respect to compensation plans under which our equity securities are authorized for issuance is discussed in Item 12 of Part III of this Annual Report on Form 10 K.

Issuer Purchases of Equity Securities

On June 1, 2016, the Company's Board of Directors authorized the repurchase of $25.0 million of the Company's outstanding common stock. Repurchases may be made from time to time in the open market or through privately negotiated transactions. The timing of any repurchases will be based upon prevailing market conditions and other factors. The Company did not repurchase any shares of common stock under the repurchase program during the year ended December 31, 2018. On May 29, 2018, the repurchase program was extended and will remain in effect until June 6, 2020, unless further extended by our Board of Directors.

The following table summarizes the purchases of shares of our common stock during the year ended December 31, 2018:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plan or Program	Approximate Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs
January 1 to 31, 2018	—	$ —	—	$ 25,000,000
February 1 to 28, 2018	—	—	—	25,000,000
March 1 to 31, 2018 (1)	5,564	56.20	—	25,000,000
April 1 to 30, 2018	—	—	—	25,000,000
May 1 to 31, 2018	—	—	—	25,000,000
June 1 to 30, 2018	—	—	—	25,000,000
July 1 to 31, 2018	—	—	—	25,000,000
August 1 to 31, 2018	—	—	—	25,000,000
September 1 to 30, 2018	—	—	—	25,000,000
October 1 to 31, 2018	—	—	—	25,000,000
November 1 to 30, 2018	—	—	—	25,000,000
December 1 to 31, 2018	—	—	—	25,000,000
Total	5,564	$ 56.20	—	$ 25,000,000

(1) Represents shares surrendered or forfeited in connection with certain employees' tax withholding obligations related to the vesting of shares of restricted stock.

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA

This summary should be read in conjunction with the consolidated financial statements and related notes.

$s in thousands, except per share amounts	2018	2017 (3)	2016	2015 (2)	2014 (1)
Revenue	$ 565,928	$ 504,042	$ 477,665	$ 563,070	$ 447,411
Impairment charges	3,666	8,903	—	6,700	—
Operating income	74,088	59,758	70,029	71,631	72,450
Foreign currency gain (loss)	55	516	(138)	(2,196)	(1,499)
Income tax (benefit) expense	15,263	(6,395)	21,049	21,244	22,814
Net income	$ 49,595	$ 49,365	$ 34,252	$ 25,611	$ 38,236
Earnings per share—basic:	$ 2.27	$ 2.27	$ 1.58	$ 1.18	$ 1.78
Earnings per share—diluted:	$ 2.25	$ 2.25	$ 1.57	$ 1.18	$ 1.77
Shares used in earnings per share calculation:					
Basic	21,888	21,758	21,704	21,637	21,537
Diluted	22,047	21,902	21,789	21,733	21,655
Dividends paid per share	$ 0.72	$ 0.72	$ 0.72	$ 0.72	$ 0.72
Total assets	$ 947,898	$ 802,076	$ 776,400	$ 771,987	$ 910,047
Working capital (4)	$ 111,436	$ 81,127	$ 52,774	$ 54,516	$ 76,869
Long term debt	$ 364,000	$ 277,000	$ 277,362	$ 293,740	$ 384,381
Stockholders' equity	$ 359,217	$ 324,077	$ 280,024	$ 256,135	$ 251,337
Adjusted EBITDA (5)	$ 124,679	$ 113,810	$ 112,786	$ 125,450	$ 108,976

(1) 2014 financial data reflects the acquisition of EQ on June 17, 2014.

(2) 2015 financial data reflects the divestiture of Allstate on November 1, 2015.

(3) 2017 financial data reflects a net income tax benefit of $23.8 million, primarily as a result of the re-measurement of certain deferred tax assets and liabilities following the passage of the Tax Act.

(4) Calculated as current assets minus current liabilities.

(5) We define Adjusted EBITDA as net income before interest expense, interest income, income tax expense, depreciation, amortization, share-based compensation, accretion of closure and post closure liabilities, foreign currency gain/loss, non cash impairment charges, gain/loss on divestiture and other income/expense. See "Adjusted EBITDA" under Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of this report for further discussion of Adjusted EBITDA and a reconciliation to the most directly comparable GAAP measure, net income.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

General

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.

We have fixed facilities and service centers operating in the United States, Canada and Mexico. Our fixed facilities include five RCRA subtitle C 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

Table of Contents

generate revenue from fees charged to transport, recycle, treat and dispose of waste and to perform various field and industrial services for our customers.

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, non hazardous and radioactive waste at Company owned landfill, wastewater, deep-well injection 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 field services such as industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, emergency response and other services to commercial and industrial facilities and to government entities.

In order to provide insight into the underlying drivers of our waste volumes and related treatment and disposal (“T&D”) revenues, we evaluate period to period changes in our T&D revenue for our Environmental Services segment based on the industry of the waste generator, based on North American Industry Classification System (“NAICS”) codes.

The composition of the Environmental Services segment T&D revenues by waste generator industry for the years ended December 31, 2018 and 2017 were as follows:

	% of Treatment and Disposal Revenue (1) for the Years Ended December 31,	
Generator Industry	2018	2017
Chemical Manufacturing	17%	17%
Metal Manufacturing	16%	16%
Broker / TSDF	13%	13%
General Manufacturing	12%	13%
Refining	11%	11%
Government	7%	6%
Utilities	3%	4%
Waste Management & Remediation	3%	3%
Transportation	3%	2%
Mining, Exploration and Production	2%	3%
Other (2)	13%	12%

(1) Excludes all transportation service revenue
(2) Includes retail and wholesale trade, rate regulated, construction and other industries

We also categorize our Environmental Services T&D revenue as either “Base Business” or “Event Business” based on the underlying nature of the revenue source.

Base Business consists of waste streams from ongoing industrial activities and tends to be reoccurring in nature. 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.

During 2018, Base Business revenue growth was up 7% compared to 2017. Base Business revenue was approximately 80% of total 2018 T&D revenue, up from 78% in 2017. Our business is highly competitive and no assurance can be given that we will maintain these revenue levels or increase our market share.

Table of Contents

A significant portion of our disposal revenue is attributable to discrete Event Business projects which vary widely in size, duration and unit pricing. For the year ended December 31, 2018, approximately 20% 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 waste received from Base Business also vary from quarter to quarter.

This variability can also cause significant quarter to quarter and year to year differences in revenue, gross profit, gross margin, operating income and net income. While we pursue many projects months or years in advance of work performance, 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.

Depending on project specific customer needs and competitive economics, transportation services may be offered at or near our cost to help secure new business. For waste transported by rail from the eastern United States and other locations distant from our Grand View, Idaho and Robstown, Texas facilities, transportation related revenue can account for as much as 75% of total project revenue. While bundling transportation and disposal services reduces overall gross profit as a percentage of total revenue ("gross margin"), this value added service has allowed us to win multiple projects that management believes 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.

The increased waste volumes resulting from projects won through this bundled service strategy further drive operating leverage benefits inherent to the disposal business, increasing profitability. While waste treatment and other variable costs are project specific, the incremental earnings contribution from large and small projects generally increases as overall disposal volumes increase. Based on past experience, management believes that maximizing operating income, net income and earnings per share is a higher priority than maintaining or increasing gross margin. We intend to continue aggressively bidding bundled transportation and disposal services based on this proven strategy.

We serve oil refineries, chemical production plants, steel mills, waste brokers/aggregators serving small manufacturers and other industrial customers that are generally affected by the prevailing economic conditions and credit environment. Adverse conditions may cause our customers as well as those they serve to curtail operations, resulting in lower waste production and/or delayed spending on off site waste shipments, maintenance, waste cleanup projects and other work. Factors that can impact general economic conditions and the level of spending by customers include, but are not limited to, consumer and industrial spending, increases in fuel and energy costs, conditions in the real estate and mortgage markets, labor and healthcare costs, access to credit, consumer confidence and other global economic factors affecting spending behavior. Market forces may also induce customers to reduce or cease operations, declare bankruptcy, liquidate or relocate to other countries, any of which could adversely affect our business. To the extent business is either government funded or driven by government regulations or enforcement actions, we believe it is less susceptible to general economic conditions. Spending by government agencies may be reduced due to declining tax revenues resulting from a weak economy or changes in policy. Disbursement of funds appropriated by Congress may also be delayed for various reasons.

Geographical Information

For the year ended December 31, 2018, we derived $495.2 million or 87% of our revenue in the United States and $70.8 million or 13% of our revenue in Canada. 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. Additional information about the geographical areas in which our revenues are derived and in which our assets

---

Table of Contents

are located is presented in Note 4 and Note 21 to the Consolidated Financial Statements in “Part II, Item 8. Financial Statements and Supplementary Data” of this Annual Report on Form 10 K.

Significant Events

Our results of operations have been affected by certain significant events during the past three fiscal years including, but not limited to:

2018 Events

Explosion at Grand View, Idaho Facility: On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility’s primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. On February 8, 2019, we resumed direct landfill disposal operations at our Grand View, Idaho facility after receiving a temporary authorization from IDEQ. Waste treatment activities at the facility remain closed pending the completion of the various investigations, reconstruction of damaged facilities and authorization from IDEQ. In addition to initiating and conducting our own investigation into the incident, we are fully cooperating with the IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. As we continue to investigate the cause of the incident, we are evaluating its impact, but, at this time, we are unable to predict the timing and outcome of the investigation. As such, we cannot presently estimate the potential liability, if any, related to the incident therefore no amounts related to such claims have been recorded in our financial statements as of December 31, 2018. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. Accordingly, our insurance policies may not fully compensate us for these losses during our facility closures.

Acquisition of Ecoserv Industrial Disposal, LLC: On November 14, 2018, the Company acquired Ecoserv Industrial Disposal, LLC (“Winnie”), which provides non-hazardous industrial wastewater disposal solutions and employs deep-well injection technology in the southern United States. The total purchase price was $87.1 million and was funded with borrowings under the 2017 Credit Agreement of $87.0 million and cash on hand. The purchase price is subject to post-closing adjustments based on agreed upon working capital requirements. Post-closing adjustments are expected to be finalized and settled in 2019. We recorded $66.6 million of intangible assets and $13.6 million of goodwill on the consolidated balance sheets as a result of the acquisition. Amortizing intangible assets will be amortized over a weighted average life of approximately 52 years. The acquisition of Winnie was not material to our consolidated financial position or results of operations either individually or when aggregated with other acquisitions completed in 2018.

Acquisition of ES&H of Dallas, LLC: On August 31, 2018, the Company acquired ES&H of Dallas, LLC (“ES&H Dallas”), which provides emergency and spill response, light industrial services and transportation and logistics for waste disposal and recycling from locations in Dallas and Midland, Texas. The total purchase price was $21.3 million and was funded with cash on hand. We recorded $4.2 million of intangible assets and $7.1 million of goodwill on the consolidated balance sheets as a result of the acquisition. Amortizing intangible assets will be amortized over a weighted average life of approximately 16 years. The acquisition of ES&H Dallas was not material to our consolidated financial position or results of operations either individually or when aggregated with other acquisitions completed in 2018.

Goodwill and Intangible Asset Impairment Charges: Based on the results of the Company's interim assessment of the goodwill and intangible assets of our Mobile Recycling reporting unit, we recorded a $1.4 million goodwill impairment charge and impairment charges of $1.8 million and $454,000 on non-amortizing intangible assets and amortizing intangible assets, respectively, associated with our Mobile Recycling business in the third quarter of 2018. See Note 13 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.

Table of Contents

2017 Events

Goodwill and Intangible Asset Impairment Charges: Based on the results of the Company's annual assessment of goodwill and intangible assets, during the fourth quarter we recorded a $5.5 million goodwill impairment charge in our Resource Recovery reporting unit and a $3.4 million impairment charge on the non-amortizing intangible waste collection, recycling and resale permit associated with our Resource Recovery business. See Note 13 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.

Tax Cuts and Jobs Act of 2017: On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. In accordance with the Tax Act, we recorded $23.8 million as additional income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The total benefit included $25.2 million related to the re-measurement of certain deferred tax assets and liabilities partially offset by $1.4 million of provisional expense related to one-time transition tax on the mandatory deemed repatriation of foreign earnings. Additionally, Staff Accounting Bulletin No. 118 ("SAB 118") was issued to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, we have completed our analysis based on legislative updates relating to the Tax Act currently available, which resulted in a net benefit for measurement period adjustments of $193,000 for the year ended December 31, 2018. The total tax provision benefit included a $2.2 million benefit related to the re-measurement of certain deferred tax assets and liabilities offset by $2.0 million of expense related to adjustments to the transition tax.

Write-off of Deferred Financing Costs: In connection with the refinancing of the Company's outstanding debt, we wrote off certain unamortized deferred financing costs and original issue discount that were to be amortized to interest expense in future periods through a one-time charge of $5.5 million to interest expense in the second quarter of 2017. 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.

2016 Events

Divestiture of Augusta, Georgia Facility: On April 5, 2016, we completed the divestiture of our Augusta, Georgia facility for cash proceeds of $1.9 million. The Augusta, Georgia facility was reported as part of our Environmental Services segment. Sales, net income and total assets of the Augusta, Georgia facility are not material to our consolidated financial position or results of operations in any period presented. We recognized a $1.9 million pre tax gain on the divestiture of the Augusta, Georgia facility, which is included in Other income (expense) in our consolidated statements of operations for the year ended December 31, 2016.

Acquisition of Environmental Services Inc.: On May 2, 2016, the Company acquired 100% of the outstanding shares of Environmental Services Inc., ("ESI"), an environmental services company based in Tilbury, Ontario, Canada. The total purchase price was $4.9 million, net of cash acquired, and was funded with cash on hand. Revenues and total assets of ESI are not material to our consolidated financial position or results of operations. We recorded $1.5 million of intangible assets and $1.0 million of goodwill on the consolidated balance sheets as a result of the acquisition. Amortizing intangible assets will be amortized over a weighted average life of approximately 14 years.

Acquisition of Vernon, California Facility: On October 1, 2016, the Company acquired the Vernon, California based RCRA Part B, liquids and solids waste treatment and storage facility of Evoqua Water Technologies LLC. The total purchase price was $5.0 million and was funded with cash on hand. Revenues and total assets of the Vernon, California facility are not material to our consolidated financial position or results of operations. We recorded $3.2 million of intangible assets and $354,000 of goodwill on the consolidated balance sheets as a result of the acquisition. Amortizing intangible assets will be amortized over a weighted average life of approximately 20 years.

Table of Contents

Results of Operations

Our operating results and percentage of revenues for the years ended December 31, 2018, 2017 and 2016 were as follows:

	Year Ended December 31,						2018 vs. 2017		201
$s in thousands	2018	%	2017	%	2016	%	$ Change	% Change	$ C
Revenue									
Environmental Services	$ 400,678	71 %	$ 366,308	73 %	$ 337,771	71 %	$ 34,370	9 %	$ 2
Field & Industrial Services	165,250	29 %	137,734	27 %	139,894	29 %	27,516	20 %	(
Total	565,928	100 %	504,042	100 %	477,665	100 %	61,886	12 %	2
Gross Profit									
Environmental Services	147,475	37 %	134,968	37 %	126,818	38 %	12,507	9 %	8
Field & Industrial Services	22,619	14 %	18,159	13 %	20,777	15 %	4,460	25 %	(
Total	170,094	30 %	153,127	30 %	147,595	31 %	16,967	11 %	5
Selling, General & Administrative Expenses									
Environmental Services	22,542	6 %	24,185	7 %	21,418	6 %	(1,643)	(7) %	2
Field & Industrial Services	10,742	7 %	9,278	7 %	10,115	7 %	1,464	16 %	(
Corporate	59,056	n/m	51,003	n/m	46,033	n/m	8,053	16 %	4
Total	92,340	16 %	84,466	17 %	77,566	16 %	7,874	9 %	6
Adjusted EBITDA									
Environmental Services	160,526	40 %	146,371	40 %	139,698	41 %	14,155	10 %	6
Field & Industrial Services	18,456	11 %	14,709	11 %	16,342	12 %	3,747	25 %	(
Corporate	(54,303)	n/m	(47,270)	n/m	(43,254)	n/m	(7,033)	15 %	(
Total	$ 124,679	22 %	$ 113,810	23 %	$ 112,786	24 %	$ 10,869	10 %	$ 1

Management uses Adjusted EBITDA as a financial measure to assess segment performance. Adjusted EBITDA is defined as net income before interest expense, interest income, income tax expense, depreciation, amortization, share-based compensation, accretion of closure and post closure liabilities, foreign currency gain/loss, non cash impairment charges, gain/loss on divestiture and other income/expense. The reconciliation of Net income to Adjusted EBITDA for the years ended December 31, 2018, 2017 and 2016 is as follows:

	Year Ended December 31,			2018 vs. 2017		2017 vs. 2016	
$s in thousands	2018	2017	2016	$ Change	% Change	$ Change	% Change
Net income	$ 49,595	$ 49,365	$ 34,252	$ 230	0 %	$ 15,113	44 %
Income tax (benefit) expense	15,263	(6,395)	21,049	21,658	(339) %	(27,444)	(130) %
Interest expense	12,130	18,157	17,317	(6,027)	(33) %	840	5 %
Interest income	(215)	(62)	(96)	(153)	247 %	34	(35) %
Foreign currency (gain) loss	(55)	(516)	138	461	(89) %	(654)	(474) %
Gain on divestiture	—	—	(2,034)	—	n/m	2,034	(100) %
Other income	(2,630)	(791)	(597)	(1,839)	232 %	(194)	32 %
Impairment charges	3,666	8,903	—	(5,237)	(59) %	8,903	n/m
Depreciation and amortization of plant and equipment	29,207	28,302	25,304	905	3 %	2,998	12 %
Amortization of intangibles	9,645	9,888	10,575	(243)	(2) %	(687)	(6) %
Share-based compensation	4,366	3,933	2,925	433	11 %	1,008	34 %
Accretion and non-cash adjustment of closure & post-closure liabilities	3,707	3,026	3,953	681	23 %	(927)	(23) %
Adjusted EBITDA	$ 124,679	$ 113,810	$ 112,786	$ 10,869	10 %	$ 1,024	1 %

Adjusted EBITDA is a complement to results provided in accordance with accounting principles generally accepted in the United States ("GAAP") and we believe that such information provides additional useful information to analysts, stockholders and other users to understand the Company's operating performance. Since Adjusted EBITDA is not a measurement determined in accordance with GAAP and is thus susceptible to varying calculations, Adjusted EBITDA as presented may not be comparable to other similarly titled measures of other companies. Items excluded from Adjusted

Table of Contents

EBITDA are significant components in understanding and assessing our financial performance. Adjusted EBITDA should not be considered in isolation or as an alternative to, or substitute for, net income, cash flows generated by operations, investing or financing activities, or other financial statement data presented in the consolidated financial statements as indicators of financial performance or liquidity.

Adjusted EBITDA has limitations as an analytical tool and should not be considered in isolation or a substitute for analyzing our results as reported under GAAP. Some of the limitations are:

- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect our interest expense, or the requirements necessary to service interest or principal payments on our debt;
- Adjusted EBITDA does not reflect our income tax expenses or the cash requirements to pay our taxes;
- Adjusted EBITDA does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments; and
- Although depreciation and amortization charges are non cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements.

2018 Compared to 2017

Revenue

Total revenue increased 12% to $565.9 million in 2018, compared with $504.0 million in 2017.

Environmental Services

Environmental Services segment revenue increased 9% to $400.7 million in 2018, compared to $366.3 million in 2017. T&D revenue increased 7% in 2018 compared to 2017, primarily as a result of a 7% increase in Base Business revenue, partially offset by a 3% decrease in project based Event Business revenue. Transportation and logistics service revenue increased 18% in 2018 compared to 2017, reflecting more Event Business projects utilizing the Company’s transportation and logistics services. Tons of waste disposed of or processed increased 2% in 2018 compared to 2017.

T&D revenue from recurring Base Business waste generators increased 7% in 2018 compared to 2017 and comprised 80% of total T&D revenue. The increase in Base Business T&D revenue compared to the prior year primarily reflects higher T&D revenue from the chemical manufacturing, broker/TSDF, “Other,” metal manufacturing and refining industry groups.

T&D revenue from Event Business waste generators decreased 3% in 2018 compared to 2017 and comprised 20% of total T&D revenue. The decrease in Event Business T&D revenue compared to the prior year primarily reflects lower T&D revenue from the general manufacturing, mining, exploration and production and refining industry groups, partially offset by higher T&D revenue from the government and “Other” industry groups.

Table of Contents

The following table summarizes combined Base Business and Event Business T&D revenue growth, within the Environmental Services segment, by waste generator industry for 2018 compared to 2017:

	T&D Revenue Growth 2018 vs. 2017
Government	19%
Transportation	13%
Waste Management & Remediation	12%
Other	11%
Chemical Manufacturing	9%
Broker / TSDF	8%
Metal Manufacturing	4%
Refining	1%
General Manufacturing	-2%
Utilities	-10%
Mining and E&P	-25%

Field & Industrial Services

Field & Industrial Services segment revenue increased 20% to $165.3 million in 2018 compared with $137.7 million in 2017. The increase in Field & Industrial Services segment revenue is primarily attributable to revenue from new facilities in 2018 and stronger overall market conditions.

Gross Profit

Total gross profit increased 11% to $170.1 million in 2018, up from $153.1 million in 2017. Total gross margin was 30% for both 2018 and 2017.

Environmental Services

Environmental Services segment gross profit increased 9% to $147.5 million in 2018, up from $135.0 million in 2017. This increase primarily reflects higher T&D volumes in 2018 compared to 2017. Total segment gross margin was 37% for both 2018 and 2017. T&D gross margin was 42% for 2018 compared with 40% for 2017. 2017 T&D gross margin reflects the impact of the temporary closure of one of our treatment facilities due to wind damage and incremental costs associated with the hurricanes in the Gulf Coast and Florida that impacted our operations in 2017.

Field & Industrial Services

Field & Industrial Services segment gross profit increased 25% to $22.6 million in 2018, up from $18.2 million in 2017. Total segment gross margin was 14% for 2018 compared with 13% for 2017. The increase in segment gross margin is primarily attributable to contract wins and associated revenue in our small quantity generation services and total waste management businesses, stronger market conditions in our remediation business and the contribution from new facilities in 2018.

Selling, General and Administrative Expenses (“SG&A”)

Total SG&A increased to $92.3 million, or 16% of total revenue, in 2018 compared with $84.5 million, or 17% of total revenue, in 2017.

Environmental Services

Environmental Services segment SG&A decreased 7% to $22.5 million, or 6% of segment revenue, in 2018 compared with $24.2 million, or 7% of segment revenue, in 2017, primarily reflecting lower property tax expense and lower amortization expense. The decrease in property tax expense in 2018 was the result of a settlement in the second quarter of

Table of Contents

2018 on a dispute related to a $1.1 million property tax assessment for tax years 2015 through 2017 associated with our 2014 acquisition of EQ Holdings, Inc. recorded in the third quarter of 2017.

Field & Industrial Services

Field & Industrial Services segment SG&A increased 16% to $10.7 million, or 7% of segment revenue, in 2018 compared with $9.3 million, or 7% of segment revenue, in 2017. The increase in segment SG&A primarily reflects incremental costs associated with new facilities in 2018.

Corporate

Corporate SG&A was $59.1 million, or 10% of total revenue, in 2018 compared with $51.0 million, or 10% of total revenue, in 2017, primarily reflecting higher employee labor costs and higher consulting and professional services expenses in 2018 compared to 2017.

Components of Adjusted EBITDA

Income tax expense

Our effective income tax rate for 2018 was 23.5% compared to -14.9% in 2017. The increase was primarily the result of the impact that the Tax Act, enacted on December 22, 2017, had on our 2017 effective tax rate. Among other provisions, the Tax Act reduces the federal corporate tax rate to 21% from the existing maximum rate of 35%, effective for tax years beginning after December 31, 2017, and imposes a deemed repatriation tax on previously untaxed accumulated earnings and profits of foreign subsidiaries. As required, in the period of enactment, we re-measured our net deferred tax assets and liabilities and recorded a provisional benefit of $25.2 million to our income tax expense. We also recorded a provisional charge of $1.4 million to our income tax expense for the deemed repatriation transition tax.

Interest expense

Interest expense was $12.1 million in 2018 compared with $18.2 million in 2017. The decrease in interest expense in 2018 was primarily the result of a one-time non-cash charge of $5.5 million to interest expense in 2017 related to the refinancing of our 2014 Credit Agreement. The remaining decrease is attributable to a lower effective interest rate under our 2017 Credit Agreement, partially offset by additional interest expense on borrowings used to finance the Winnie acquisition.

Foreign currency gain (loss)

We recognized a $55,000 non cash foreign currency gain in 2018 compared with a $516,000 non cash foreign currency gain in 2017. Foreign currency gains and losses reflect changes in business activity conducted in a currency other than the USD, our functional currency. Our Canadian subsidiaries' facilities are located in Blainville, Québec and Tilbury, Ontario, Canada and use the Canadian dollar ("CAD") as their functional currency. Additionally, we established intercompany loans between our Canadian subsidiaries, whose functional currency is the CAD, and our parent company, US Ecology, as part of a tax and treasury management strategy allowing for repayment of third party bank debt. These intercompany loans are payable by our Canadian subsidiaries to US Ecology in CAD requiring us to revalue the outstanding loan balance through our statements of operations based on USD/CAD currency movements from period to period. At December 31, 2018, we had $20.3 million of intercompany loans subject to currency revaluation.

Other income

Other income was $2.6 million in 2018 compared with other income of $791,000 in 2017, primarily reflecting a $2.0 million gain in 2018 on the issuance of a property easement on a portion of unutilized Company-owned land at one of our operating facilities.

Depreciation and amortization of plant and equipment

Depreciation and amortization expense increased to $29.2 million in 2018 compared with $28.3 million in 2017, primarily reflecting additional depreciation expense on assets placed in service in 2018, including assets associated with the ES&H Dallas and Winnie acquisitions.

Amortization of intangibles

Intangible assets amortization expense was $9.6 million in 2018 compared with $9.9 million in 2017, primarily reflecting the full amortization of certain intangible assets in 2017, partially offset by additional amortization of intangible assets recorded as a result of the ES&H Dallas and Winnie acquisitions.

Share based compensation

Share based compensation expense increased 11% to $4.4 million in 2018, compared with $3.9 million 2017 as a result of an increase in equity based awards granted to employees.

Accretion and non cash adjustment of closure and post closure liabilities

Accretion and non cash adjustment of closure and post closure liabilities increased to $3.7 million in 2018 compared with $3.0 million in 2017, primarily reflecting higher non-cash adjustments to post-closure liabilities recorded in 2017 due to changes in cost estimates and timing associated with closed sites.

Impairment charges

Based on the results of our 2018 interim assessment of the goodwill and intangible assets of our Mobile Recycling reporting unit, which is part of our Environmental Services segment, we recorded impairment charges of $3.7 million in the third quarter of 2018. Based on the results of our 2017 annual assessment of goodwill and intangible assets, we recorded impairment charges of $8.9 million in our Resource Recovery reporting unit, which is part of our Environmental Services segment, in the fourth quarter of 2017. See Note 13 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.

2017 Compared to 2016

Revenue

Total revenue increased 6% to $504.0 million in 2017, compared with $477.7 million in 2016.

Environmental Services

Environmental Services segment revenue increased 8% to $366.3 million in 2017, compared to $337.8 million in 2016. T&D revenue increased 8% in 2017 compared to 2016, primarily as a result of a 23% increase in project based Event Business revenue and a 5% increase in Base Business revenue. Transportation and logistics service revenue increased 8% in 2017 compared to 2016, reflecting more Event Business projects utilizing the Company’s transportation and logistics services. Tons of waste disposed of or processed increased 7% in 2017 compared to 2016.

T&D revenue from recurring Base Business waste generators increased 5% in 2017 compared to 2016 and comprised 78% of total T&D revenue. During 2017, increases in Base Business T&D revenue from the chemical manufacturing, refining, general manufacturing, and “Other” industry groups were partially offset by decreases in T&D revenue from Base Business in the broker/TSDF industry group.

T&D revenue from Event Business waste generators increased 23% in 2017 compared to 2016 and comprised 22% of total T&D revenue. The increase in Event Business T&D revenue compared to the prior year primarily reflects higher T&D revenue from the chemical manufacturing, metal manufacturing, government and “Other” industry groups, partially offset

Table of Contents

by lower T&D revenue from the general manufacturing industry group. The increase in revenue from the chemical manufacturing industry group is primarily attributable to a large East Coast remedial cleanup project.

The following table summarizes combined Base Business and Event Business T&D revenue growth, within the Environmental Services segment, by waste generator industry for 2017 compared to 2016:

	T&D Revenue Growth 2017 vs. 2016
Chemical Manufacturing	37%
Waste Management & Remediation	23%
Government	14%
Mining and E&P	12%
Refining	11%
Other	9%
Metal Manufacturing	8%
General Manufacturing	-2%
Transportation	-6%
Utilities	-7%
Broker / TSDF	-8%

Field & Industrial Services

Field & Industrial Services segment revenue decreased 2% to $137.7 million in 2017 compared with $139.9 million in 2016. The decrease in Field & Industrial Services segment revenue is primarily attributable to the expiration of a contract that was not renewed or replaced and softer overall market conditions for industrial and remediation services.

Gross Profit

Total gross profit increased 4% to $153.1 million in 2017, up from $147.6 million in 2016. Total gross margin was 30% for 2017 compared with 31% for 2016.

Environmental Services

Environmental Services segment gross profit increased 6% to $135.0 million in 2017, up from $126.8 million in 2016. This increase primarily reflects higher T&D volumes in 2017 compared to 2016. Total segment gross margin was 37% for 2017 compared with 38% for 2016. T&D gross margin was 40% for 2017 compared with 42% for 2016. The decrease in T&D gross margin is primarily attributable to the impact of the temporary closure of one of our treatment facilities due to wind damage and incremental costs associated with the hurricanes in the Gulf Coast and Florida that impacted our operations in 2017.

Field & Industrial Services

Field & Industrial Services segment gross profit decreased 13% to $18.2 million in 2017, down from $20.8 million in 2016. Total segment gross margin was 13% for 2017 compared with 15% for 2016. The decrease in segment gross margin is attributable to lower route density in our small quantity generation services due to a contract that was not renewed in late 2016 and a less favorable service mix for our industrial and remediation services in 2017 compared to 2016.

Selling, General and Administrative Expenses (“SG&A”)

Total SG&A increased to $84.5 million, or 17% of total revenue, in 2017 compared with $77.6 million, or 16% of total revenue, in 2016.

Table of Contents

Environmental Services

Environmental Services segment SG&A increased 13% to $24.2 million, or 7% of segment revenue, in 2017 compared with $21.4 million, or 6% of segment revenue, in 2016, primarily reflecting higher labor and incentive compensation costs, higher property tax expenses and lower gains on sale of assets, partially offset by lower bad debt expense and higher insurance proceeds in 2017 compared to 2016.

Field & Industrial Services

Field & Industrial Services segment SG&A decreased 8% to $9.3 million, or 7% of segment revenue, in 2017 compared with $10.1 million, or 7% of segment revenue, in 2016. The decrease in segment SG&A primarily reflects lower bad debt expense and higher insurance proceeds, partially offset by higher labor and incentive compensation costs in 2017 compared to 2016.

Corporate

Corporate SG&A was $51.0 million, or 10% of total revenue, in 2017 compared with $46.0 million, or 10% of total revenue, in 2016, primarily reflecting higher labor and incentive compensation costs in 2017 compared to 2016.

Components of Adjusted EBITDA

Income tax expense

Our effective income tax rate for 2017 was -14.9% compared to 38.1% in 2016. The decrease was primarily the result of the impact of the Tax Act, enacted on December 22, 2017 by the U.S. government. Among other provisions, the Tax Act reduced the federal corporate tax rate to 21% from the existing maximum rate of 35%, effective for tax years beginning after December 31, 2017, and imposed a deemed repatriation tax on previously untaxed accumulated earnings and profits of foreign subsidiaries. We re-measured our net deferred tax assets and liabilities and recorded a provisional benefit of $25.2 million to our income tax expense in 2017. We also recorded a provisional charge of $1.4 million to our income tax expense for the deemed repatriation transition tax. The decrease in the effective income tax rate was also attributable to a higher proportion of earnings from our Canadian operations in 2017 which are taxed at a lower corporate tax rate, partially offset by non-recurring non-deductible impairment charges as well as a higher effective state tax rate driven by changes in apportionment of income between the various states in which we operate.

Interest expense

Interest expense was $18.2 million in 2017 compared with $17.3 million in 2016. The Company wrote off certain unamortized deferred financing costs and original issue discount associated with the 2014 Credit Agreement that were to be amortized to interest expense in future periods through a one-time non-cash charge of $5.5 million to interest expense in the second quarter of 2017. This increase is partially offset by a lower effective interest rate under the 2017 Credit Agreement compared to the 2014 Credit Agreement and reduced debt levels in 2017 compared to 2016.

Foreign currency gain (loss)

We recognized a $516,000 non cash foreign currency gain in 2017 compared with a $138,000 non cash foreign currency loss in 2016. Foreign currency gains and losses reflect changes in business activity conducted in a currency other than the USD, our functional currency. Our Canadian subsidiaries' facilities are located in Blainville, Québec and Tilbury, Ontario, Canada and use the Canadian dollar ("CAD") as their functional currency. Additionally, we established intercompany loans between our Canadian subsidiaries, whose functional currency is the CAD, and our parent company, US Ecology, as part of a tax and treasury management strategy allowing for repayment of third party bank debt. These intercompany loans are payable by our Canadian subsidiaries to US Ecology in CAD requiring us to revalue the outstanding loan balance through our statements of operations based on USD/CAD currency movements from period to period. At December 31, 2017, we had $21.4 million of intercompany loans subject to currency revaluation.

Table of Contents

Gain on divestiture

Other income in 2016 includes approximately $2.0 million related to the gain on sale of the Augusta, Georgia facility in April 2016 and final closing adjustments on the Allstate divestiture.

Depreciation and amortization of plant and equipment

Depreciation and amortization expense increased to $28.3 million in 2017 compared with $25.3 million in 2016, primarily reflecting additional depreciation expense on assets placed in service in 2017.

Amortization of intangibles

Intangible assets amortization expense was $9.9 million in 2017 compared with $10.6 million in 2016.

Share based compensation

Share based compensation expense increased 34% to $3.9 million in 2017, compared with $2.9 million 2016 as a result of an increase in equity based awards granted to employees.

Accretion and non cash adjustment of closure and post closure liabilities

Accretion and non cash adjustment of closure and post closure liabilities decreased to $3.0 million in 2017 compared with $4.0 million in 2016, primarily reflecting non-cash adjustments to post-closure liabilities recorded in 2017 due to changes in cost estimates associated with closed sites.

Impairment charges

Based on the results of our 2017 annual assessment of goodwill and intangible assets, we recorded impairment charges of $8.9 million in our Resource Recovery reporting unit, which is part of our Environmental Services segment, in the fourth quarter of 2017. See Note 13 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.

Liquidity and Capital Resources

Our primary sources of liquidity are cash and cash equivalents, cash generated from operations and borrowings under the new senior secured credit agreement (the “2017 Credit Agreement”). At December 31, 2018, we had $32.0 million in cash and cash equivalents immediately available and $130.3 million of borrowing capacity available under the 2017 Credit Agreement. We assess our liquidity in terms of our ability to generate cash to fund our operating, investing and financing activities. Our primary ongoing cash requirements are funding operations, capital expenditures, paying principal and interest on our long-term debt, and paying declared dividends pursuant to our dividend policy. We believe future operating cash flows will be sufficient to meet our future operating, investing and dividend cash needs for the foreseeable future. Furthermore, existing cash balances and availability of additional borrowings under the 2017 Credit Agreement provide additional sources of liquidity should they be required.

Operating Activities. In 2018, net cash provided by operating activities was $81.5 million. This primarily reflects net income of $49.6 million, non cash depreciation, amortization and accretion of $42.6 million, an increase in accounts payable and accrued liabilities of $14.3 million, deferred income taxes of $5.9 million, share-based compensation expense of $4.4 million and non cash impairment charges of $3.7 million, partially offset by an increase in accounts receivable of $32.3 million and an increase in income taxes receivable of $7.1 million. Impacts on net income are due to the factors discussed above under "Results of Operations." The decrease in accounts payable and accrued liabilities is primarily attributable to the timing of payments to vendors for products and services. The increase in receivables is primarily attributable to the timing of customer payments. Changes in income taxes receivable are primarily attributable to the timing of income tax payments.

Table of Contents

Days sales outstanding were 77 days as of December 31, 2018 and 2017.

In 2017, net cash provided by operating activities was $79.7 million. This primarily reflects net income of $49.4 million, non cash depreciation, amortization and accretion of $41.2 million, non cash impairment charges of $8.9 million, amortization and write-off of debt issuance costs of $6.0 million, a decrease in income taxes receivable of $4.1 million, share based compensation expense of $3.9 million, an increase in income taxes payable of $3.9 and an increase in accrued salaries and benefits of $3.4 million, partially offset by a decrease in deferred income taxes of $25.3 million, an increase in accounts receivable of $13.9 million, and a decrease in closure and post-closure obligations of $1.8 million. Impacts on net income are due to the factors discussed above under “Results of Operations.” The increase in receivables is primarily attributable to the timing of customer payments. Changes in income taxes receivable and payable are primarily attributable to the timing of income tax payments. Changes in deferred income taxes are primarily attributable to the re-measurement of our deferred tax assets and liabilities based on the provisions of the Tax Act.

In 2016, net cash provided by operating activities was $74.0 million. This primarily reflects net income of $34.3 million, non cash depreciation, amortization and accretion of $39.8 million, a decrease in accounts receivable of $10.9 million, share based compensation expense of $2.9 million, non cash amortization of debt issuance costs of $2.0 million, and a decrease in other assets of $1.2 million, partially offset by a decrease in accounts payable and accrued liabilities of $7.7 million, a decrease in deferred income taxes of $2.7 million, the gain recognized on the divestiture of the Augusta, Georgia facility in April 2016, final closing adjustments on the Allstate divestiture of $2.0 million, and an increase in income taxes receivable of $2.0 million. Impacts on net income are due to the factors discussed above under “Results of Operations.” The decrease in receivables is primarily attributable to the timing of customer payments. Changes in income taxes receivable and payable are primarily attributable to the timing of income tax payments.

Investing Activities. In 2018, net cash used in investing activities was $148.8 million, primarily related the acquisition of Winnie for $87.1 million, the acquisition of ES&H Dallas for $21.3 million, and capital expenditures of $40.8 million. Significant capital projects included continuing construction of additional disposal capacity and railway expansions at our Blainville, Québec, Canada location and infrastructure upgrades at our corporate and operating facilities.

In 2017, net cash used in investing activities was $33.9 million, primarily related to capital expenditures. Significant capital projects included construction of additional disposal capacity at our Beatty, Nevada and Blainville, Québec, Canada locations and equipment purchases and infrastructure upgrades at our corporate and operating facilities.

In 2016, net cash used in investing activities was $41.4 million, primarily related to capital expenditures of $35.7 million, the purchase of the Vernon, California based RCRA Part B, liquids and solids waste treatment and storage facility of Evoqua Water Technologies LLC for $5.0 million and the purchase of Environmental Services Inc., (“ESI”), for $4.9 million, net of cash acquired, partially offset by proceeds from the divestiture of our Augusta, Georgia facility for $2.7 million, net of cash divested. Significant capital projects included construction of additional disposal capacity at our Blainville, Québec, Canada, Beatty, Nevada and Robstown, Texas facilities and equipment purchases and infrastructure upgrades at our corporate and operating facilities.

Financing Activities. During 2018, net cash provided by financing activities was $72.9 million, consisting primarily of $87.0 million in proceeds under the 2017 Credit Agreement to fund the acquisition of Winnie and $2.4 million in proceeds received from the exercise of stock options, partially offset by $15.8 million of dividend payments to our stockholders.

During 2017, net cash used in financing activities was $26.3 million, consisting primarily of $283.0 million of repayment of the Company’s long-term debt under the 2014 Credit Agreement, $281.0 million of initial proceeds from the borrowing of long-term debt under the 2017 Credit Agreement, $4.0 million of subsequent repayments of long-term debt under the 2017 Credit Agreement, $15.7 million of dividend payments to our stockholders, $3.0 million of deferred financing costs associated with the 2017 Credit Agreement and net payment activity on the Company’s short-term borrowings of $2.2 million.

During 2016, net cash used in financing activities was $31.6 million, consisting primarily of $18.0 million of payments on our Term Loan and $15.7 million of dividend payments to our stockholders, partially offset by $2.2 million of net proceeds on our Revolving Credit Facility to fund working capital requirements.

Table of Contents

Credit Facility

On April 18, 2017, the Company entered into the 2017 Credit Agreement with Wells Fargo Bank, National Association, as administrative agent for the lenders, swingline lender and issuing lender, and Bank of America, N.A., as an issuing lender, which 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 2017 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. Proceeds from the Revolving Credit Facility are restricted solely for working capital and other general corporate purposes (including acquisitions and capital expenditures). Under the Revolving Credit Facility, revolving credit loans are available based on a base rate (as defined in the 2017 Credit Agreement) or LIBOR, at the Company's option, plus an applicable margin which is determined according to a pricing grid under which the interest rate decreases or increases based on our ratio of funded debt to consolidated earnings before interest, taxes, depreciation and amortization (as defined in the 2017 Credit Agreement). The Company wrote off certain unamortized deferred financing costs and original issue discount associated with the 2014 Credit Agreement that were to be amortized to interest expense in future periods through a one-time charge of $5.5 million to interest expense in the second quarter of 2017.

At December 31, 2018, the effective interest rate on the Revolving Credit Facility, including the impact of our interest rate swap, was 3.53%. Interest only payments are due either quarterly or on the last day of any interest period, as applicable. In October 2014, the Company entered into an interest rate swap agreement, effectively fixing the interest rate on $170.0 million, or 47%, of the Revolving Credit Facility borrowings as of December 31, 2018.

The Company is required to pay a commitment fee ranging from 0.175% to 0.35% on the average daily unused portion of the Revolving Credit Facility, with such commitment fee to be reduced based upon the Company's total net leverage ratio (as defined in the 2017 Credit Agreement). The maximum letter of credit capacity under the Revolving Credit Facility is $75.0 million and the 2017 Credit Agreement provides for a letter of credit fee equal to the applicable margin for LIBOR loans under the Revolving Credit Facility. At December 31, 2018, there were $364.0 million of borrowings outstanding on the Revolving Credit Facility. These borrowings are due on the revolving credit maturity date (as defined in the 2017 Credit Agreement) and presented as long-term debt in the consolidated balance sheets.

The Company has entered into a sweep arrangement whereby day-to-day cash requirements in excess of available cash balances are advanced to the Company on an as-needed basis with repayments of these advances automatically made from subsequent deposits to our cash operating accounts (the "Sweep Arrangement"). Total advances outstanding under the Sweep Arrangement are subject to the $25.0 million swingline loan sublimit under the Revolving Credit Facility. The Company's revolving credit loans outstanding under the Revolving Credit Facility are not subject to repayment through the Sweep Arrangement. As of December 31, 2018, there were no amounts outstanding subject to the Sweep Arrangement.

As of December 31, 2018, the availability under the Revolving Credit Facility was $130.3 million with $5.7 million of the Revolving Credit Facility issued in the form of standby letters of credit utilized as collateral for closure and post-closure financial assurance and other assurance obligations.

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 on the Company’s debt.

Table of Contents

Contractual Obligations and Guarantees

Contractual Obligations

US Ecology’s contractual obligations at December 31, 2018 become due as follows:

	Payments Due by Period				
$s in thousands	Total	2019	2020-2021	2022-2023	Thereafter
Closure and post-closure obligations(1)	$ 283,085	$ 2,317	$ 13,128	$ 12,251	$ 255,389
Operating lease commitments	20,873	5,638	6,828	3,342	5,065
Credit agreement obligations(2)	364,000	—	—	364,000	—
Interest expense(3)	45,527	13,724	27,612	4,191	—
Total contractual obligations(4)	$ 713,485	$ 21,679	$ 47,568	$ 383,784	$ 260,454

(1) For the purposes of the table above, closure and post closure obligations are shown on an undiscounted basis and inflated using an estimated annual inflation rate of 2.6%. Cash payments for closure and post closure obligation extend to the year 2105.
(2) At December 31, 2018, there were $364.0 million of revolving credit loans outstanding on 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 2017 Credit Agreement) by us, and (c) the date of termination of the revolving credit commitment.
(3) Interest expense has been calculated using the effective interest rate of 3.85% in effect at December 31, 2018 on the unhedged variable rate portion of the Revolving Credit Facility borrowings and 3.67% on the fixed rate hedged portion of the Revolving Credit Facility borrowings. The interest expense calculation reflects assumed payments on the Revolving Credit Facility borrowings consistent with the disclosures in footnote (2) above.
(4) As we are not able to reasonably estimate when we would make any cash payments to settle unrecognized tax benefits of $555,000, such amounts have not been included in the table above. In addition, we have recorded a liability for interest of $15,000 relating to such unrecognized tax benefits but have not included such amounts in the table above.

Guarantees

We enter into a wide range of indemnification arrangements, guarantees and assurances in the ordinary course of business and have evaluated agreements that contain guarantees and indemnification clauses. These include tort indemnities, tax indemnities, indemnities against third party claims arising out of arrangements to provide services to us and indemnities related to the sale of our securities. We also indemnify individuals made party to any suit or proceeding if that individual was acting as an officer or director of US Ecology or was serving at the request of US Ecology or any of its subsidiaries during their tenure as a director or officer. We also provide guarantees and indemnifications for the benefit of our wholly owned subsidiaries to satisfy performance obligations, including closure and post closure financial assurances. It is difficult to quantify the maximum potential liability under these indemnification arrangements; however, we are not currently aware of any material liabilities to the Company or any of its subsidiaries arising from these arrangements.

Environmental Matters

We maintain funded trusts agreements, surety bonds and insurance policies for future closure and post closure obligations at both current and formerly operated disposal facilities. These funded trust agreements, surety bonds and insurance policies are based on management estimates of future closure and post closure monitoring using engineering evaluations and interpretations of regulatory requirements which are periodically updated. Accounting for closure and post closure costs includes final disposal cell capping and revegetation, soil and groundwater monitoring and routine maintenance and surveillance required after a site is closed.

Table of Contents

We estimate that our undiscounted future closure and post closure costs for all facilities was approximately $283.1 million at December 31, 2018, with a median payment year of 2063. Our future closure and post closure estimates are our best estimate of current costs and are updated periodically to reflect current technology, cost of materials and services, applicable laws, regulations, permit conditions or orders and other factors. These current costs are adjusted for anticipated annual inflation, which we assumed to be 2.6% as of December 31, 2018. These future closure and post closure estimates are discounted to their present value for financial reporting purposes using our credit adjusted risk free interest rate, which approximates our incremental long term borrowing rate in effect at the time the obligation is established or when there are upward revisions to our estimated closure and post closure costs. At December 31, 2018, our weighted average credit adjusted risk free interest rate was 6.0%. For financial reporting purposes, our recorded closure and post closure obligations were $78.4 million and $76.1 million as of December 31, 2018 and 2017, respectively.

Through December 31, 2018, we have met our financial assurance requirements through insurance, surety bonds, standby letters of credit and self funded restricted trusts.

U.S. Operating and Non Operating Facilities

We cover our closure and post closure obligations for our U.S. operating facilities through the use of third party insurance policies, surety bonds and standby letters of credit. Insurance policies covering our closure and post closure obligations expire in April 2019 and December 2019. Our total policy limits are approximately $87.5 million. At December 31, 2018 our trust accounts had $4.9 million for our closure and post closure obligations and are identified as Restricted cash and investments on our consolidated balance sheets.

All closure and post closure funding obligations for our Beatty, Nevada and Richland, Washington facilities revert to the respective State. Volume based fees are collected from our customers and remitted to state controlled trust funds to cover the estimated cost of closure and post closure obligations.

Stablex

We use commercial surety bonds to cover our closure obligations for our Stablex facility located in Blainville, Québec, Canada. Our lease agreement with the Province of Québec requires that the surety bond be maintained for 25 years after the lease expires in 2023. At December 31, 2018 we had $715,000 in commercial surety bonds dedicated for closure obligations. These bonds were renewed in November and December 2018 and expire in November and December 2019. Post closure funding obligations for the Stablex landfill revert back to the Province of Québec through a dedicated trust account that is funded based on a per metric ton disposed fee by Stablex.

We expect to renew insurance policies and commercial surety bonds in the future. If we are unable to obtain adequate closure, post closure or environmental liability insurance and/or commercial surety bonds in future years, any partial or completely uninsured claim against us, if successful and of sufficient magnitude, could have a material adverse effect on our financial condition, results of operations or 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. 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.

Operation of disposal facilities creates operational, closure and post closure obligations that could result in unplanned monitoring and corrective action costs. We cannot predict the likelihood or effect of all such costs, new laws or regulations, litigation or other future events affecting our facilities. We do not believe that continuing to satisfy our environmental obligations will have a material adverse effect on our financial condition or results of operations.

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 and

Table of Contents

business activities related to weather while we experience improvement in our second and third quarters of each calendar year as weather conditions and other business activity improves.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements require us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates included in our critical accounting policies discussed below and those accounting policies and use of estimates discussed in Notes 2 and 3 to the Consolidated Financial Statements located in "Part II, Item 8. Financial Statements and Supplementary Data" of this Annual Report on Form 10 K. We base our estimates on historical experience and on various assumptions and other factors we believe to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. We make adjustments to judgments and estimates based on current facts and circumstances on an ongoing basis. Historically, actual results have not deviated significantly from those determined using the estimates described below or in Notes 2 and 3 to the Consolidated Financial Statements located in "Part II, Item 8. Financial Statements and Supplementary Data" to this Annual Report on Form 10 K. However, actual amounts could differ materially from those estimated at the time the consolidated financial statements are prepared.

We believe the following critical accounting policies are important to understand our financial condition and results of operations and require management's most difficult, subjective or complex judgments, often as a result of the need to estimate the effect of matters that are inherently uncertain.

Revenue Recognition

Revenues are recognized when control of the promised services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

We recognize revenue from three primary sources: 1) waste treatment, recycling and disposal services, 2) field and industrial waste management services, and 3) waste transportation services.

Our waste treatment and disposal customers are legally obligated to properly treat and dispose of their waste in accordance with local, state, and federal laws and regulations. As our customers do not possess the resources to properly treat and dispose of their waste independently, they contract with the Company to perform the services. Waste treatment, recycling, and disposal revenue results primarily from fixed fees charged to customers for treatment and/or disposal or recycling of specified wastes. Waste treatment, recycling, and disposal revenue is generally charged on a per-ton or per-yard basis at contracted prices and is recognized over time as the services are performed. Our treatment and disposal services are generally performed as the waste is received and considered complete upon final disposal.

Field and industrial waste management services revenue results primarily from specialty onsite services such as high-pressure cleaning, tank cleaning, decontamination, remediation, transportation, spill cleanup and emergency response at refineries, chemical plants, steel and automotive plants, and other government, commercial and industrial facilities. We also provide hazardous waste packaging and collection services and total waste management solutions at customer sites and through our 10-day transfer facilities. These services are provided based on purchase orders or agreements with the customer and include prices based upon daily, hourly or job rates for equipment, materials and personnel. Generally, the pricing in these types of contracts is fixed, but the quantity of services to be provided during the contract term is variable and revenues are recognized over the term of the agreements or as services are performed. As we have a right to consideration from our customers in an amount that corresponds directly with the value to the customer of the Company’s performance completed to date, we have applied the practical expedient to recognize revenue in the amount to which we have the right to invoice. Revenue is recognized on contracts with retainage when services have been performed and it is probable that a significant reversal in the amount of cumulative revenue recognized on the contracts will not occur.

Transportation and logistics revenue results from delivering customer waste to a disposal facility for treatment and/or disposal or recycling. Transportation services are generally not provided on a stand-alone basis and instead are bundled

Table of Contents

with other Company services. However, in some instances we provide transportation and logistics services for shipment of waste from cleanup sites to disposal facilities operated by other companies. For such arrangements, we allocate revenue to each performance obligation based on its relative standalone selling price. We generally determine standalone selling prices based on the prices charged to customer or using expected cost plus margin. Transportation revenue is recognized over time as the waste is transported.

Taxes and fees collected from customers concurrent with revenue-producing transactions to be remitted to governmental authorities are excluded from revenue.

Our Richland, Washington disposal facility is regulated by the Washington Utilities and Transportation Commission (“WUTC”), which approves our rates for disposal of low-level radioactive waste (“LLRW”). Annual revenue levels are established based on a rate agreement with the WUTC at amounts sufficient to cover our costs of operation, including facility maintenance, equipment replacement and related costs, and provide us with a reasonable profit. Per-unit rates charged to LLRW customers during the year are based on our evaluation of disposal volume and radioactivity projections submitted to us by waste generators. Our proposed rates are then reviewed and approved by the WUTC. If annual revenue exceeds the approved levels set by the WUTC, we are required to refund excess collections to facility users on a pro-rata basis. Refundable excess collections, if any,are recorded in Accrued liabilities in the consolidated balance sheets. The current rate agreement with the WUTC was extended in 2013 and is effective until January 1, 2020.

Disposal Facility Accounting

We amortize landfill and disposal assets and certain related permits over their estimated useful lives. The units of consumption method is used to amortize landfill cell construction and development costs and asset retirement costs. Under the units of consumption method, we include costs incurred to date as well as future estimated construction costs in the amortization base of the landfill assets. Additionally, where appropriate, as discussed below, we also include probable expansion airspace that has yet to be permitted in the calculation of the total remaining useful life of the landfill asset. If we determine that expansion capacity should no longer be considered in calculating the total remaining useful life of a landfill asset, we may be required to recognize an asset impairment or incur significantly higher amortization expense over the remaining estimated useful life of the landfill asset. If at any time we make the decision to abandon the expansion effort, the capitalized costs related to the expansion effort would be expensed in the period of abandonment.

Our landfill assets and liabilities fall into the following two categories, each of which require accounting judgments and estimates:

- Landfill assets comprised of capitalized landfill development costs.
- Disposal facility retirement obligations relating to our capping, closure and post closure liabilities that result in corresponding retirement assets.

Landfill Assets

Landfill assets include the costs of landfill site acquisition, permits and cell design and construction incurred to date. Landfill cells represent individual disposal areas within the overall treatment and disposal site and may be subject to specific permit requirements in addition to the general permit requirements associated with the overall site.

To develop, construct and operate a landfill cell, we must obtain permits from various regulatory agencies at the local, state and federal levels. The permitting process requires an initial site study to determine whether the location is feasible for landfill operations. The initial studies are reviewed by our environmental management group and then submitted to the regulatory agencies for approval. During the development stage we capitalize certain costs that we incur after site selection but before the receipt of all required permits if we believe that it is probable that the landfill cell will be permitted.

Upon receipt of regulatory approval, technical landfill cell designs are prepared. The technical designs, which include the detailed specifications to develop and construct all components of the landfill cell including the types and quantities of materials that will be required, are reviewed by our environmental management group. The technical designs are submitted to the regulatory agencies for approval. Upon approval of the technical designs, the regulatory agencies issue permits to develop and operate the landfill cell.

The types of costs that are detailed in the technical design specifications generally include excavation, natural and synthetic liners, construction of leachate collection systems, installation of groundwater monitoring wells, construction of leachate management facilities and other costs associated with the development of the site. We review the adequacy of our cost estimates at least annually. These development costs, together with any costs incurred to acquire, design and permit the landfill cell, including personnel costs of employees directly associated with the landfill cell design, are recorded to the landfill asset on the balance sheet as incurred.

To match the expense related to the landfill asset with the revenue generated by the landfill operations, we amortize the landfill asset on a units of consumption basis over its operating life, typically on a cubic yard or cubic meter of disposal space consumed. The landfill asset is fully amortized at the end of a landfill cell's operating life. The per unit amortization rate is calculated by dividing the sum of the landfill asset net book value plus estimated future development costs (as described above) for the landfill cell, by the landfill cell's estimated remaining disposal capacity. Amortization rates are influenced by the original cost basis of the landfill cell, including acquisition costs, which in turn is determined by geographic location and market values. We have secured significant landfill assets through business acquisitions and valued them at the time of acquisition based on fair value.

Included in the technical designs are factors that determine the ultimate disposal capacity of the landfill cell. These factors include the area over which the landfill cell will be developed, such as the depth of excavation, the height of the landfill cell elevation and the angle of the side slope construction. Landfill cell capacity used in the determination of amortization rates of our landfill assets includes both permitted and unpermitted disposal capacity. Unpermitted disposal capacity is included when management believes achieving final regulatory approval is probable based on our analysis of site conditions and interactions with applicable regulatory agencies.

We review the estimates of future development costs and remaining disposal capacity for each landfill cell at least annually. These costs and disposal capacity estimates are developed using input from independent engineers and internal technical and accounting managers and are reviewed and approved by our environmental management group. Any changes in future estimated costs or estimated disposal capacity are reflected prospectively in the landfill cell amortization rates.

We assess our long lived landfill assets for impairment when an event occurs or circumstances change that indicate the carrying amount may not be recoverable. Examples of events or circumstances that may indicate impairment of any of our landfill assets include, but are not limited to, the following:

- Changes in legislative or regulatory requirements impacting the landfill site permitting process making it more difficult and costly to obtain and/or maintain a landfill permit;
- Actions by neighboring parties, private citizen groups or others to oppose our efforts to obtain, maintain or expand permits, which could result in denial, revocation or suspension of a permit and adversely impact the economic viability of the landfill. As a result of opposition to our obtaining a permit, improved technical information as a project progresses, or changes in the anticipated economics associated with a project, we may decide to reduce the scope of, or abandon, a project, which could result in an asset impairment; and
- Unexpected significant increases in estimated costs, significant reductions in prices we are able to charge our customers or reductions in disposal capacity that affect the ongoing economic viability of the landfill.

Disposal Facility Retirement Obligations

Disposal facility retirement obligations include the cost to close, maintain and monitor landfill cells and support facilities. As individual landfill cells reach capacity, we must cap and close the cells in accordance with the landfill cell permits. These capping and closure requirements are detailed in the technical design of each landfill cell and included as part of our approved regulatory permit. After the entire landfill cell has reached capacity and is certified closed, we must continue to maintain and monitor the landfill cell for a post closure period, which generally extends for 30 years. Costs associated

52

Table of Contents

with closure and post closure requirements generally include maintenance of the landfill cell and groundwater systems, and other activities that occur after the landfill cell has ceased accepting waste. Costs associated with post closure monitoring generally include groundwater sampling, analysis and statistical reports, transportation and disposal of landfill leachate, and erosion control costs related to the final cap.

We have a legally enforceable obligation to operate our landfill cells in accordance with the specific requirements, regulations and criteria set forth in our permits. This includes executing the approved closure/post closure plan and closing/capping the entire landfill cell in accordance with the established requirements, design and criteria contained in the permit. As a result, we record the fair value of our disposal facility retirement obligations as a liability in the period in which the regulatory obligation to retire a specific asset is triggered. For our individual landfill cells, the required closure and post closure obligations under the terms of our permits and our intended operation of the landfill cell are triggered and recorded when the cell is placed into service and waste is initially disposed in the landfill cell. The fair value is based on the total estimated costs to close the landfill cell and perform post closure activities once the landfill cell has reached capacity and is no longer accepting waste, discounted using a credit adjusted risk free rate. Retirement obligations are increased each year to reflect the passage of time by accreting the balance at the weighted average credit adjusted risk free rate that is used to calculate the recorded liability, with accretion charged to direct operating costs. Actual cash expenditures to perform closure and post closure activities reduce the retirement obligation liabilities as incurred. After initial measurement, asset retirement obligations are adjusted at the end of each period to reflect changes, if any, in the estimated future cash flows underlying the obligation. Disposal facility retirement assets are capitalized as the related disposal facility retirement obligations are incurred. Disposal facility retirement assets are amortized on a units of consumption basis as the disposal capacity is consumed.

Our disposal facility retirement obligations represent the present value of current cost estimates to close, maintain and monitor landfills and support facilities as described above. Cost estimates are developed using input from independent engineers, internal technical and accounting managers, as well as our environmental management group’s interpretation of current legal and regulatory requirements, and are intended to approximate fair value. We estimate the timing of future payments based on expected annual disposal airspace consumption and then inflate the current cost estimate by an inflation rate, estimated at December 31, 2018 to be 2.6%. Inflated current costs are then discounted using our credit adjusted risk free interest rate, which approximates our incremental borrowing rate in effect at the time the obligation is established or when there are upward revisions to our estimated closure and post closure costs. Our weighted average credit adjusted risk free interest rate at December 31, 2018 was approximately 6.0%. Final closure and post closure obligations are currently estimated as being paid through the year 2105. During 2018 we updated several assumptions, including estimated costs and timing of closing our disposal cells. These updates resulted in a net decrease to our post closure obligations of $523,000.

We update our estimates of future capping, closure and post closure costs and of future disposal capacity for each landfill cell on an annual basis. Changes in inflation rates or the estimated costs, timing or extent of the required future activities to close, maintain and monitor landfills and facilities result in both: (i) a current adjustment to the recorded liability and related asset and (ii) a change in accretion and amortization rates which are applied prospectively over the remaining life of the asset. A hypothetical 1% increase in the inflation rate would increase our closure/post closure obligation by $15.2 million. A hypothetical 10% increase in our cost estimates would increase our closure/post closure obligation by $7.8 million.

Goodwill and Intangible Assets

Goodwill

As of December 31, 2018, the Company’s goodwill balance was $207.2 million. We assess goodwill for impairment during the fourth quarter as of October 1 of each year, and also if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The assessment consists of comparing the fair value of the reporting unit to the carrying value of the net assets assigned to the reporting unit, including goodwill. Some of the factors that could indicate impairment include a significant adverse change in legal factors or in the business climate, an adverse action or assessment by a regulator, or failure to generate sufficient cash flows at the reporting unit. For example, field and industrial services represents an emerging business for the Company and has been the focus of a shift

Table of Contents

in strategy since the acquisition of EQ. Failure to execute on planned growth initiatives within this business could lead to the impairment of goodwill and intangible assets in future periods.

We determine our reporting units by identifying the components of each operating segment, and then aggregate components having similar economic characteristics based on quantitative and/or qualitative factors. At December 31, 2018, we had 15 reporting units, 8 of which had allocated goodwill.

Fair values are generally determined by an income approach, discounting projected future cash flows based on our expectations of the current and future operating environment, using a market approach, applying a multiple of earnings based on guideline for publicly traded companies, or a combination thereof. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. The rates used to discount projected future cash flows reflect a weighted average cost of capital based on our industry, capital structure and risk premiums including those reflected in the current market capitalization. In the event the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of a reporting unit exceeds its fair value, goodwill of the reporting unit is considered impaired, and an impairment charge would be recognized during the period in which the determination has been made for the amount by which the carrying amount exceeds the reporting unit’s fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit.

In connection with our annual budgeting process commencing in the third quarter of 2018 and review of the projected future cash flows of our reporting units used in our annual assessment of goodwill, it was determined that the projected future cash flows of our Mobile Recycling reporting unit (described below), which is part of our Environmental Services segment, indicated that the fair value of the reporting unit may be below its carrying amount. Accordingly, we performed an interim assessment of the reporting unit’s goodwill as of September 30, 2018. Based on the results of that assessment, goodwill was deemed impaired and we recognized an impairment charge of $1.4 million in the third quarter of 2018, representing the reporting unit’s entire goodwill balance.

Our Mobile Recycling reporting unit operates a fleet of mobile solvent recycling stills that provide on-site recycling services throughout the Eastern United States. The factors contributing to the $1.4 million goodwill impairment charge recorded in 2018 principally related to declining business and cash flows, which negatively impacted the reporting unit’s prospective financial information in its discounted cash flow model and the reporting unit's estimated fair value as compared to previous estimates.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2018 indicated that the fair value of each of our reporting units was in excess of its respective carrying value.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2017 indicated that the fair value of each of our reporting units was in excess of its respective carrying value, with the exception of the Resource Recovery reporting unit.

Our Resource Recovery reporting unit offers full-service storm water management and propylene glycol (“PG”) deicing fluid recovery at major airports. Recovered fluids are transported to our recycling facility in Romulus, Michigan where they are distilled and resold to industrial users. The Resource Recovery reporting unit also generates revenues from brokered PG sales and services revenues for PG collection at the airports we service. Weak PG commodity prices and reduced PG collection volumes at the airports we service negatively impacted the reporting unit’s prospective financial information in its discounted cash flow model and the reporting unit's estimated fair value. A longer-than-expected recovery in PG commodity pricing and PG collection volumes became evident during the fourth quarter of 2017 as management completed its 2018 budgeting cycle and updated the long-term projections for the reporting unit which, as a result, decreased the reporting unit’s anticipated future cash flows as compared to those estimated previously.

The estimated fair value of the Resource Recovery reporting unit was determined under an income approach using discounted projected future cash flows and then compared to the reporting unit’s carrying amount as of October 1, 2017. Based on the results of that comparison, the carrying amount of the Resource Recovery reporting unit, including $5.5 million of goodwill, exceeded the estimated fair value of the reporting unit by more than $5.5 million and, as a result, we

Table of Contents

recognized a $5.5 million impairment charge, representing the reporting unit's entire goodwill balance, in the fourth quarter of 2017.

Non-amortizing Intangible Assets

We review non-amortizing intangible assets for impairment during the fourth quarter as of October 1 of each year. Fair value is generally determined by considering an internally developed discounted projected cash flow analysis. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. If the fair value of an asset is determined to be less than the carrying amount of the intangible asset, an impairment in the amount of the difference is recorded in the period in which the annual assessment occurs.

In connection with the interim goodwill impairment assessment of the Mobile Recycling reporting unit, we also assessed the reporting unit's non-amortizing intangible permit asset for impairment as of September 30, 2018. Based on the results of that assessment, the carrying amounts of the non-amortizing intangible permit asset exceeded its estimated fair value and, as a result, we recognized a $1.8 million impairment charge in the third quarter of 2018. The factors and timing contributing to the non-amortizing intangible asset charge were the same as the factors and timing described above with regards to the Mobile Recycling reporting unit goodwill impairment charge.

The results of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2018 indicated no impairment charges were required.

The result of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2017 indicated no impairment charges were required, with the exception of the non-amortizing intangible waste collection, recycling and resale permit associated with our Resource Recovery business.

In performing the annual non-amortizing intangible assets impairment test, the estimated fair value of the Resource Recovery business' waste collection, recycling and resale permit was determined under an income approach using discounted projected future cash flows associated with the permit and then compared to the $3.7 million carrying amount of the permit as of October 1, 2017. Based on the results of that evaluation, the carrying amount of the permit exceeded the estimated fair value of the permit and, as a result, we recognized a $3.4 million impairment charge in the fourth quarter of 2017. The factors and timing contributing to the non-amortizing permit impairment charge were the same as the factors and timing described above with regards to the Resource Recovery reporting unit goodwill impairment charge.

We also review amortizing tangible and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. In order to assess whether a potential impairment exists, the assets' carrying values are compared with their undiscounted expected future cash flows. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. Impairments are measured by comparing the fair value of the asset to its carrying value. Fair value is generally determined by considering: (i) the internally developed discounted projected cash flow analysis; (ii) a third party valuation; and/or (iii) information available regarding the current market environment for similar assets. If the fair value of an asset is determined to be less than the carrying amount of the asset, an impairment in the amount of the difference is recorded in the period in which the events or changes in circumstances that indicated the carrying value of the asset may not be recoverable occurred.

Amortizing Tangible and Intangible Assets

In connection with the interim goodwill impairment assessment of the Mobile Recycling reporting unit, we also assessed the reporting unit's amortizing tangible and intangible assets for impairment as of September 30, 2018. Based on the results of that assessment, the carrying amounts of the amortizing intangible assets exceeded their estimated fair values and, as a result, we recognized a $454,000 impairment charge in the third quarter of 2018. The factors and timing contributing to the amortizing intangible asset impairment charge were the same as the factors and timing described above with regards to the Mobile Recycling reporting unit goodwill impairment charge. Otherwise, no events or circumstances occurred during 2018 that would indicate that our amortizing tangible and intangible assets may by impaired, therefore no other impairment tests were performed during 2018.

In the fourth quarter of 2017, we performed an assessment of the Resource Recovery business' amortizing tangible and intangible assets, as events indicated their carrying values may not be recoverable. The result of the assessment indicated no impairment charges were required. Otherwise, no events or circumstances occurred during 2017 that would indicate that our amortizing tangible and intangible assets were impaired, therefore no other impairment tests were performed during 2017.

Our acquired permits and licenses generally have renewal terms of approximately 5 10 years. We have a history of renewing these permits and licenses as demonstrated by the fact that each of the sites' treatment permits and licenses have been renewed regularly since the facility began operations. We intend to continue to renew our permits and licenses as they come up for renewal for the foreseeable future. Costs incurred to renew or extend the term of our permits and licenses are recorded in Selling, general and administrative expenses in our consolidated statements of operations.

Share Based Payments

On May 27, 2015, our stockholders approved the Omnibus Incentive Plan ("Omnibus Plan"), which was approved by our Board of Directors on April 7, 2015. The Omnibus Plan was developed to provide additional incentives through equity ownership in US Ecology and, as a result, encourage employees and directors to contribute to our success. The Omnibus Plan provides, among other things, the ability for the Company to grant restricted stock, performance stock, options, stock appreciation rights, restricted stock units, performance stock units ("PSUs") and other share based awards or cash awards to officers, employees, consultants and non employee directors. Subsequent to the approval of the Omnibus Plan in May 2015, we stopped granting equity awards under our 2008 Stock Option Incentive Plan and our 2006 Restricted Stock Plan ("Previous Plans"), and the Previous Plans will remain in effect solely for the settlement of awards granted under the Previous Plans. No shares that are reserved but unissued under the Previous Plans or that are outstanding under the Previous Plans and reacquired by the Company for any reason will be available for issuance under the Omnibus Plan. The Omnibus Plan expires on April 7, 2025 and authorizes 1,500,000 shares of common stock for grant over the life of the Omnibus Plan.

As of December 31, 2018, we have PSUs outstanding under the Omnibus Plan. Each PSU represents the right to receive, on the settlement date, one share of the Company's common stock. The total number of PSUs each participant is eligible to earn ranges from 0% to 200% of the target number of PSUs granted. The actual number of PSUs that will vest and be settled in shares is determined at the end of a three year performance period, based on total stockholder return relative to a set of peer companies and the S&P 600. The fair value of the PSUs is determined using a Monte Carlo simulation. Refer to Note 19 to the Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of this Annual Report on Form 10 K for a summary of the assumptions utilized in the Monte Carlo valuation of awards granted during 2018, 2017 and 2016.

As of December 31, 2018, we have stock option awards outstanding under the 2008 Stock Option Incentive Plan ("2008 Stock Option Plan") and the Omnibus Plan. Subsequent to the approval of the Omnibus Plan in May 2015, we stopped granting equity awards under the 2008 Stock Option Plan. The 2008 Stock Option Plan will remain in effect solely for the settlement of awards previously granted.

The determination of fair value of stock option awards on the date of grant using the Black Scholes model is affected by our stock price and subjective assumptions. These assumptions include, but are not limited to, the expected term of stock options and expected stock price volatility over the term of the awards. Refer to Note 19 to the Consolidated Financial Statements in "Part II, Item 8. Financial Statements and Supplementary Data" of this Annual Report on

Form 10 K for a summary of the assumptions utilized in 2018, 2017 and 2016. Our stock options have characteristics significantly different from those of traded options, and changes in the assumptions can materially affect the fair value estimates.

The Company has elected to account for forfeitures as they occur, rather than estimate expected forfeitures.

Table of Contents

Income Taxes

Income taxes are accounted for using an asset and liability approach whereby we recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities at the applicable tax rates. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the period that includes the enactment date. Deferred tax assets are evaluated for the likelihood of use in future periods. A valuation allowance is recorded against deferred tax assets if, based on the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. The determination of the need for a valuation allowance, if any, requires our judgment and the use of estimates. If we determine that we would be able to realize our deferred tax assets in the future in excess of their net recorded amount, we would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes. As of December 31, 2018, we have deferred tax assets totaling approximately $20.3 million, a valuation allowance of $4.8 million and deferred tax liabilities totaling approximately $78.8 million.

The application of income tax law is inherently complex. Tax laws and regulations are voluminous and at times ambiguous and interpretations of guidance regarding such tax laws and regulations change over time. This requires us to make many subjective assumptions and judgments regarding the timing and amounts of deductible and taxable items and the probability of sustaining uncertain tax positions. A liability for uncertain tax positions is recorded in our financial statements on the basis of a two-step process whereby (1) we determine whether it is more likely than not that the tax position taken will be sustained based on the technical merits of the position and (2) for those tax positions that meet the more likely than not recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. At December 31, 2018, our estimated gross unrecognized tax benefits were $555,000, of which $485,000, if recognized, would favorably impact our future earnings. Due to uncertainties in any tax audit outcome, our estimates of the ultimate settlement of our unrecognized tax positions may change and the actual tax benefits may differ significantly from the estimates. As facts and circumstances change, we reassess these probabilities and record any changes in the financial statements as appropriate. Changes in our assumptions and judgments can materially affect our financial position, results of operations and cash flows. We recognize interest assessed by taxing authorities or interest associated with uncertain tax positions as a component of interest expense. We recognize any penalties assessed by taxing authorities or penalties associated with uncertain tax positions as a component of selling, general and administrative expenses.

On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017.

In accordance with the Tax Act, we recorded $23.8 million as additional income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The total benefit included $25.2 million related to the re-measurement of certain deferred tax assets and liabilities partially, offset by $1.4 million of provisional expense related to one-time transition tax on the mandatory deemed repatriation of foreign earnings. Additionally, Staff Accounting Bulletin No. 118 (“SAB 118”) was issued to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, we have completed our analysis based on legislative updates relating to the Tax Act currently available, which resulted in a net benefit for measurement period adjustments of $193,000 for the year ended December 31, 2018. The total tax provision benefit included a $2.2

million benefit related to the re-measurement of certain deferred tax assets and liabilities offset by $2.0 million of expense related to adjustments to the transition tax.

See Note 17 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 regarding income taxes.

Table of Contents

Litigation

We have, in the past, been involved in litigation requiring estimates of timing and loss potential whose timing and ultimate disposition is controlled by the judicial process.

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 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.

On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility's primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. We resumed limited operations at our Grand View, Idaho facility in February 2019. In addition to initiating and conducting our own investigation into the incident, we are fully cooperating with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. As we continue to investigate the cause of the incident, we are evaluating its impact, but, at this time, we are unable to predict the timing and outcome of the investigation. As such, we cannot presently estimate the potential liability, if any, related to the incident therefore no amounts related to such claims have been recorded in our financial statements as of December 31, 2018. We have not been named as a defendant in any action relating to the incident. We maintain workers' compensation insurance, business interruption insurance and liability insurance for personal injury, property and casualty damage. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. Accordingly, our insurance policies may not fully compensate us for these losses.

Other than as described above, 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.

The decision to accrue costs or write-off assets is based on the pertinent facts and our evaluation of present circumstances.

Off Balance Sheet Arrangements

We do not have any off balance sheet arrangements or interests in variable interest entities that would require consolidation. US Ecology operates through wholly owned subsidiaries.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We do not maintain equities, commodities, derivatives, or any other similar instruments for trading purposes. We have minimal interest rate risk on investments or other assets due to our preservation of capital approach to investments. At December 31, 2018, $4.9 million of restricted cash was invested in fixed-income U.S. Treasury and U.S. government agency securities and money market accounts.

We are exposed to changes in interest rates as a result of our borrowings under the 2017 Credit Agreement. Under the 2017 Credit Agreement, Revolving Credit Facility borrowings incur interest at a base rate (as defined in the 2017 Credit Agreement) or LIBOR, at the Company’s option, plus an applicable margin which is determined according to a pricing grid under which the interest rate decreases or increases based on our ratio of funded debt to consolidated earnings before interest, taxes, depreciation and amortization (as defined in the 2017 Credit Agreement). On October 29, 2014, the Company entered into an interest rate swap agreement with the intention of hedging the Company's interest rate exposure on a portion of the Company's outstanding LIBOR-based variable rate debt. Under the terms of the swap, the Company pays interest at the fixed effective rate of 2.17% and receives interest at the variable one-month LIBOR rate on an initial notional amount of $250.0 million.

As of December 31, 2018, there were $364.0 million of revolving loans outstanding under the 2017 Credit Agreement. If interest rates were to rise and outstanding balances remain unchanged, we would be subject to higher interest payments on our outstanding debt. Subsequent to the effective date of the interest rate swap on December 31, 2014, we are subject to higher interest payments on only the unhedged borrowings under the 2017 Credit Agreement.

Based on the outstanding indebtedness of $364.0 million under the 2017 Credit Agreement at December 31, 2018 and the impact of our interest rate hedge, if market rates used to calculate interest expense were to average 1% higher in the next twelve months, our interest expense would increase by approximately $2.0 million for the corresponding period.

Foreign Currency Risk

We are subject to currency exposures and volatility because of currency fluctuations. The majority of our transactions are in USD; however, our Canadian subsidiaries conduct business in both Canada and the United States. In addition, contracts for services that our Canadian subsidiaries provide to U.S. customers are generally denominated in USD. During 2018, our Canadian subsidiaries transacted approximately 72% of their revenue in USD and at any time have cash on deposit in USD and outstanding USD trade receivables and payables related to these transactions. These USD cash, receivable and payable accounts are subject to non cash foreign currency translation gains or losses. Exchange rate movements also affect the translation of Canadian generated profits and losses into USD.

We established intercompany loans between our Canadian subsidiaries and our parent company, US Ecology, as part of a tax and treasury management strategy allowing for repayment of third party bank debt. These intercompany loans are payable using CAD and are subject to mark to market adjustments with movements in the CAD. At December 31, 2018, we had $20.3 million of intercompany loans outstanding between our Canadian subsidiaries and US Ecology. During 2018, the CAD weakened as compared to the USD resulting in a $1.9 million non cash foreign currency translation loss being recognized in the Company's consolidated statements of operations related to the intercompany loans. Based on intercompany balances as of December 31, 2018, a $0.01 CAD increase or decrease in currency rate compared to the USD at December 31, 2018 would have generated a gain or loss of approximately $203,000 for the year ended December 31, 2018.

We had a total pre tax foreign currency gain of $55,000 for the year ended December 31, 2018. We currently have no foreign exchange contracts, option contracts or other foreign currency hedging arrangements. Management evaluates our risk position on an ongoing basis to determine whether foreign exchange hedging strategies should be employed.

Table of Contents

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of US Ecology, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of US Ecology, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control — Integrated Framework (2013) issued by COSO.

As described in Management's Annual Report on Internal Controls over Financial Reporting, management excluded from its assessment the internal control over financial reporting at ES&H Dallas, LLC and Ecoserv Industrial Disposal, LLC, which were acquired on August 31, 2018 and November 14, 2018, respectively; and whose combined financial statements constitute 3% of total assets (excluding goodwill and intangible assets), 2% of revenues, and 3% of net income of the consolidated financial statement amounts as of and for the year ended December 31, 2018. Accordingly, our audit did not include the internal control over financial reporting at ES&H Dallas, LLC and Ecoserv Industrial Disposal, LLC.

Basis for Opinions

The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Controls over Financial Reporting. Our responsibility is to express an opinion on these financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the financial statements included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures to respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Table of Contents

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP

Boise, Idaho

February 28, 2019

We have served as the Company's auditor since 2009.

Table of Contents

US ECOLOGY, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except per share amounts)

	As of December 31, 2018	2017
Assets		
Current Assets:		
Cash and cash equivalents	$ 31,969	$ 27,042
Receivables, net	144,690	110,777
Prepaid expenses and other current assets	10,938	9,138
Income taxes receivable	7,071	—
Total current assets	194,668	146,957
Property and equipment, net	258,443	234,432
Restricted cash and investments	4,941	5,802
Intangible assets, net	279,666	222,812
Goodwill	207,177	189,373
Other assets	3,003	2,700
Total assets	$ 947,898	$ 802,076
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 17,754	$ 14,868
Deferred revenue	10,451	8,532
Accrued liabilities	35,524	22,888
Accrued salaries and benefits	16,732	14,242
Income taxes payable	505	2,970
Current portion of closure and post-closure obligations	2,266	2,330
Total current liabilities	83,232	65,830
Long-term closure and post-closure obligations	76,097	73,758
Long-term debt	364,000	277,000
Other long-term liabilities	2,146	3,828
Deferred income taxes, net	63,206	57,583
Total liabilities	588,681	477,999
Commitments and contingencies		
Stockholders' Equity:		
Common stock $0.01 par value, 50,000 authorized; 22,040 and 21,849 shares issued, respectively	220	218
Additional paid-in capital	183,834	177,498
Retained earnings	189,324	155,533
Treasury stock, at cost, 8 and 3 shares, respectively	(370)	(68)

Accumulated other comprehensive loss	(13,791)	(9,104)
Total stockholders' equity	359,217	324,077
Total liabilities and stockholders' equity	$ 947,898	$ 802,076

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

	For the Year Ended December 31,		
	2018	2017	2016
Revenue	$ 565,928	$ 504,042	$ 477,665
Direct operating costs	395,834	350,915	330,070
Gross profit	170,094	153,127	147,595
Selling, general and administrative expenses	92,340	84,466	77,566
Impairment charges	3,666	8,903	—
Operating income	74,088	59,758	70,029
Other income (expense):			
Interest income	215	62	96
Interest expense	(12,130)	(18,157)	(17,317)
Foreign currency gain (loss)	55	516	(138)
Gain on divestiture	—	—	2,034
Other	2,630	791	597
Total other expense	(9,230)	(16,788)	(14,728)
Income before income taxes	64,858	42,970	55,301
Income tax expense (benefit)	15,263	(6,395)	21,049
Net income	$ 49,595	$ 49,365	$ 34,252
Earnings per share:			
Basic	$ 2.27	$ 2.27	$ 1.58
Diluted	$ 2.25	$ 2.25	$ 1.57
Shares used in earnings per share calculation:			
Basic	21,888	21,758	21,704
Diluted	22,047	21,902	21,789

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

	For the Year Ended December 31,		
	2018	2017	2016
Net income	$ 49,595	$ 49,365	$ 34,252
Other comprehensive income (loss):			
Foreign currency translation gain (loss)	(6,094)	4,046	1,379
Net changes in interest rate hedge, net of taxes of $375, $985, and $517, respectively	1,407	1,575	962
Comprehensive income, net of tax	$ 44,908	$ 54,986	$ 36,593

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	For the Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net income	$ 49,595	$ 49,365	$ 34,252
Adjustments to reconcile net income to net cash provided by operating activities:			
Impairment charges	3,666	8,903	—
Depreciation and amortization of property and equipment	29,207	28,302	25,304
Amortization of intangible assets	9,645	9,888	10,575
Accretion of closure and post-closure obligations	3,707	3,026	3,953
Unrealized foreign currency loss (gain)	1,211	(1,283)	65
Deferred income taxes	5,906	(25,309)	(2,704)
Share-based compensation expense	4,366	3,933	2,925
Unrecognized tax benefits	485	—	—
Gain on disposition of business	—	—	(2,034)
Net (gain) loss on disposition of assets	370	408	(569)
Gain on insurance proceeds from damaged property and equipment	(347)	(1,313)	(654)
Amortization and write-off of debt issuance costs	810	6,009	2,006
Amortization and write-off of debt discount	—	667	148
Changes in assets and liabilities (net of effects of business acquisitions and divestiture):			
Receivables	(32,301)	(13,861)	10,912
Income taxes receivable	(7,072)	4,121	(2,043)
Other assets	(1,187)	(1,328)	1,149
Accounts payable and accrued liabilities	14,301	2,012	(7,735)
Deferred revenue	2,059	617	(281)
Accrued salaries and benefits	2,476	3,420	(864)
Income taxes payable	(3,512)	3,921	49
Closure and post-closure obligations	(1,900)	(1,795)	(481)
Net cash provided by operating activities	81,485	79,703	73,973
Cash flows from investing activities:			
Business acquisitions (net of cash acquired)	(108,382)	—	(9,983)
Proceeds from divestitures (net of cash divested)	—	—	2,723
Purchases of property and equipment	(40,757)	(36,240)	(35,696)
Purchases of restricted investments	(1,023)	(800)	(1,104)
Proceeds from sale of restricted investments	910	835	1,000
Proceeds from sale of property and equipment	493	974	991
Insurance proceeds from damaged property and equipment	—	1,313	654
Net cash used in investing activities	(148,759)	(33,918)	(41,415)

Cash flows from financing activities:			
Proceeds from long-term debt	87,000	281,000	—
Payments on long-term debt	—	(287,040)	(17,954)
Payments on short-term borrowings	—	(13,438)	(47,228)
Proceeds from short-term borrowings	—	11,260	49,405
Dividends paid	(15,804)	(15,711)	(15,673)
Proceeds from exercise of stock options	2,427	1,050	229
Deferred financing costs paid	—	(2,967)	—
Payment of equipment financing obligations	(448)	(377)	(179)
Other	(314)	(121)	(189)
Net cash provided by (used in) financing activities	72,861	(26,344)	(31,589)
Effect of foreign exchange rate changes on cash	(1,633)	636	(8)
Increase in Cash and cash equivalents and restricted cash	3,954	20,077	961
Cash and cash equivalents and restricted cash at beginning of period	28,799	8,722	7,761
Cash and cash equivalents and restricted cash at end of period	$ 32,753	$ 28,799	$ 8,722
Reconciliation of Cash and cash equivalents and restricted cash			
Cash and cash equivalents at beginning of period	27,042	7,015	5,989
Restricted cash at beginning of period	1,757	1,707	1,772
Cash and cash equivalents and restricted cash at beginning of period	28,799	8,722	7,761
Cash and cash equivalents at end of period	31,969	27,042	7,015
Restricted cash at end of period	784	1,757	1,707
Cash and cash equivalents and restricted cash at end of period	32,753	28,799	8,722

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share amounts)

	Common Shares Issued	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total
Balance at December 31, 2015	21,743,972	217	169,873	103,300	(189)	(17,066)	$ 256,135
Net income	—	—	—	34,252	—	—	34,252
Other comprehensive income	—	—	—	—	—	2,341	2,341
Dividend paid	—	—	—	(15,673)	—	—	(15,673)
Tax benefit of equity based awards	—	—	85	—	—	—	85
Share-based compensation	—	—	2,925	—	—	—	2,925
Stock option exercises	11,856	—	229	—	—	—	229
Repurchase of common stock: 6,589 shares	—	—	—	—	(271)	—	(271)
Issuance of restricted common stock	23,888	1	—	—	—	—	1
Issuance of restricted common stock from treasury shares	—	—	(408)	—	408	—	—
Balance at December 31, 2016	21,779,716	218	172,704	121,879	(52)	(14,725)	280,024
Net income	—	—	—	49,365	—	—	49,365
Other comprehensive income	—	—	—	—	—	5,621	5,621
Dividend paid	—	—	—	(15,711)	—	—	(15,711)
Share-based compensation	—	—	3,933	—	—	—	3,933
Stock option exercises	43,175	—	1,047	—	—	—	1,047
Repurchase of common stock: 2,502 shares	—	—	—	—	(121)	—	(121)
	26,274	—	(81)	—	—	—	(81)

Issuance of restricted common stock							
Issuance of restricted common stock from treasury shares	—	—	(105)	—	105	—	—
Balance at December 31, 2017	21,849,165	218	177,498	155,533	(68)	(9,104)	324,077
Net income	—	—	—	49,595	—	—	49,595
Other comprehensive loss	—	—	—	—	—	(4,687)	(4,687)
Dividend paid	—	—	—	(15,804)	—	—	(15,804)
Share-based compensation	—	—	4,366	—	—	—	4,366
Stock option exercises	143,220	1	2,428	—	—	—	2,429
Repurchase of common stock: 5,564 shares	—	—	—	—	(313)	—	(313)
Issuance of restricted common stock	44,949	1	(278)	—	—	—	(277)
Issuance of performance common stock	2,810	—	(169)	—	—	—	(169)
Issuance of restricted common stock from treasury shares	—	—	(11)	—	11	—	—
Balance at December 31, 2018	22,040,144	$ 220	$ 183,834	$ 189,324	$ (370)	$ (13,791)	$ 359,217

The accompanying notes are an integral part of these financial statements.

Table of Contents

US ECOLOGY, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. DESCRIPTION OF BUSINESS

US Ecology, Inc. 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. US Ecology, Inc., through its subsidiaries, 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 and radioactive waste, as well as a wide range of complementary field and industrial services. US Ecology, Inc. has been protecting the environment since 1952, with operations in the United States, Canada and Mexico. Throughout these financial statements words such as “we,” “us,” “our,” “US Ecology” and the “Company” refer to US Ecology, Inc. and its subsidiaries.

Our operations are managed in two reportable segments reflecting our internal reporting structure and nature of services offered: Environmental Services and Field & Industrial Services.

Our Environmental Services segment provides a broad range of hazardous material management services including transportation, recycling, treatment and disposal of hazardous, non hazardous and radioactive waste at Company owned landfill, wastewater, deep-well injection and other treatment facilities.

Our Field & Industrial Services 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 field services such as industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, emergency response and other services to commercial and industrial facilities and to government entities.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The accompanying financial statements are prepared on a consolidated basis. All inter company balances and transactions have been eliminated in consolidation. Our year end is December 31.

Cash and Cash Equivalents

Cash and cash equivalents consist primarily of cash on deposit, money market accounts or short-term investments with original maturities of 90 days or less at the date of acquisition. Cash and cash equivalents totaled $32.0 million and $27.0 million at December 31, 2018 and 2017, respectively. At December 31, 2018 and 2017, we had $19.4 million and $18.6 million, respectively, of cash at our operations outside the United States.

Receivables

Our receivables include invoiced and unbilled amounts where the Company has an unconditional right to payment.

Receivables are stated at an amount management expects to collect. Based on management's assessment of the credit history of the customers having outstanding balances and factoring in current economic conditions, management has concluded that potential unidentified losses on balances outstanding at year end will not be material.

Unbilled receivables are recorded for work performed under contracts that have not yet been invoiced to customers and arise due to the timing of billings. Substantially all unbilled receivables at December 31, 2018, were billed in the following month.

Table of Contents

Restricted Cash and Investments

Restricted cash and investments of $4.9 million and $5.8 million at December 31, 2018 and 2017, respectively, represent funds held in third-party managed trust accounts as collateral for our financial assurance obligations for post-closure activities at our non-operating facilities. These funds are invested in fixed-income U.S. Treasury and government agency securities and money market accounts. The balances are adjusted monthly to fair market value based on quoted prices in active markets for identical or similar assets.

Revenue Recognition

Revenues are recognized when control of the promised services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services.

We recognize revenue from three primary sources: 1) waste treatment, recycling and disposal services, 2) field and industrial waste management services, and 3) waste transportation services.

Our waste treatment and disposal customers are legally obligated to properly treat and dispose of their waste in accordance with local, state, and federal laws and regulations. As our customers do not possess the resources to properly treat and dispose of their waste independently, they contract with the Company to perform these services. Waste treatment, recycling, and disposal revenue results primarily from fixed fees charged to customers for treatment and/or disposal or recycling of specified wastes. Waste treatment, recycling, and disposal revenue is generally charged on a per-ton or per-yard basis based on contracted prices and is recognized over time as the services are performed. Our treatment and disposal services are generally performed as the waste is received and considered complete upon final disposal.

Field and industrial waste management services revenue results primarily from specialty onsite services such as high-pressure cleaning, tank cleaning, decontamination, remediation, transportation, spill cleanup and emergency response at refineries, chemical plants, steel and automotive plants, and other government, commercial and industrial facilities. We also provide hazardous waste packaging and collection services and total waste management solutions at customer sites and through our 10-day transfer facilities. These services are provided based on purchase orders or agreements with the customer and include prices based upon daily, hourly or job rates for equipment, materials and personnel. Generally, the pricing in these types of contracts is fixed, but the quantity of services to be provided during the contract term is variable and revenues are recognized over the term of the agreements or as services are performed. As we have a right to consideration from our customers in an amount that corresponds directly with the value to the customer of the Company’s performance completed to date, we have applied the practical expedient to recognize revenue in the amount to which we have the right to invoice. Revenue is recognized on contracts with retainage when services have been performed and it is probable that a significant reversal in the amount of cumulative revenue recognized on the contracts will not occur.

Transportation and logistics revenue results from delivering customer waste to a disposal facility for treatment and/or disposal or recycling. Transportation services are generally not provided on a stand-alone basis and instead are bundled with other Company services. However, in some instances we provide transportation and logistics services for shipment of waste from cleanup sites to disposal facilities operated by other companies. For such arrangements, we allocate revenue to each performance obligation based on its relative standalone selling price. We generally determine standalone selling prices based on the prices charged to customer or using expected cost plus margin. Transportation revenue is recognized over time as the waste is transported.

Taxes and fees collected from customers concurrent with revenue-producing transactions to be remitted to governmental authorities are excluded from revenue.

Our Richland, Washington disposal facility is regulated by the Washington Utilities and Transportation Commission (“WUTC”), which approves our rates for disposal of low-level radioactive waste (“LLRW”). Annual revenue levels are established based on a rate agreement with the WUTC at amounts sufficient to cover the costs of operation, including facility maintenance, equipment replacement and related costs, and provide us with a reasonable profit. Per-unit rates charged to LLRW customers during the year are based on our evaluation of disposal volume and radioactivity projections submitted to us by waste generators. Our proposed rates are then reviewed and approved by the WUTC. If annual revenue

Table of Contents

exceeds the approved levels set by the WUTC, we are required to refund excess collections to facility users on a pro-rata basis. Refundable excess collections, if any, are recorded in Accrued liabilities in the consolidated balance sheets. The current rate agreement with the WUTC was extended in 2013 and is effective until January 1, 2020.

Deferred Revenue

We record deferred revenue when cash payments are received, or advance billings are charged, prior to performance of services, such as waste that has been received but not yet treated or disposed, and is recognized when these services are performed. During the year ended December 31, 2018, we recognized $8.4 million of revenue that was included in the deferred revenue balance at the beginning of the year.

Property and Equipment

Property and equipment are recorded at cost and depreciated on the straight line method over estimated useful lives. Replacements and major repairs of property and equipment are capitalized and retirements are made when assets are disposed of or when the useful life has been exhausted. Minor components and parts are expensed as incurred. Repair and maintenance expenses were $17.5 million, $14.8 million and $11.8 million for the years ended December 31, 2018, 2017 and 2016, respectively.

We assume no salvage value for our depreciable fixed assets. The estimated useful lives for significant property and equipment categories are as follows:

	Useful Lives
Vehicles and other equipment	3 to 10 years
Disposal facility and equipment	3 to 20 years
Buildings and improvements	5 to 40 years
Railcars	40 years

Disposal Cell Accounting

Qualified disposal cell development costs such as personnel and equipment costs incurred to construct new disposal cells are recorded and capitalized at cost. Capitalized cell development costs, net of recorded amortization, are added to estimated future costs of the permitted disposal cell to be incurred over the remaining construction of the cell, to determine the amount to be amortized over the remaining estimated cell life. Estimates of future costs are developed using input from independent engineers and internal technical and accounting managers. We review these estimates at least annually. Amortization is recorded on a unit of consumption basis, typically applying cost as a rate per cubic yard disposed. Disposal facility costs are expected to be fully amortized upon final closure of the facility, as no salvage value applies. Costs associated with ongoing disposal operations are charged to expense as incurred.

We have material financial commitments for closure and post closure obligations for certain facilities we own or operate. We estimate future cost requirements for closure and post closure monitoring based on RCRA and conforming state requirements and facility permits. RCRA requires that companies provide the responsible regulatory agency acceptable financial assurance for closure work and subsequent post closure monitoring of each facility for 30 years following closure. Estimates for final closure and post closure costs are developed using input from our technical and accounting managers as well as independent engineers and are reviewed by management at least annually. These estimates involve projections of costs that will be incurred after the disposal facility ceases operations, through the required post closure care period. The present value of the estimated closure and post closure costs are accreted using the interest method of allocation to direct costs in our consolidated statements of operations so that 100% of the future cost has been incurred at the time of payment.

Business Combinations

We account for business combinations under the acquisition method of accounting. The cost of an acquired company is assigned to the tangible and identifiable intangible assets purchased and the liabilities assumed on the basis of their fair

70

values at the date of acquisition. Any excess of purchase price over the fair value of net tangible and intangible assets acquired is assigned to goodwill. The transaction costs associated with business combinations are expensed as they are incurred.

Goodwill

Goodwill represents the excess of the fair value of the consideration transferred over the fair value of the underlying identifiable assets and liabilities acquired. Goodwill is not amortized, but instead is assessed for impairment annually in the fourth quarter as of October 1 and also if an event occurs or circumstances change that may indicate a possible impairment. In the event that we determine that the value of goodwill has become impaired, we will incur an accounting charge for the amount of impairment during the period in which the determination has been made. See Note 3 for additional information related to the use of estimates in the Company's goodwill impairment tests and Note 13 for additional information on the goodwill impairment charges recorded in 2018 and 2017.

Intangible Assets

Intangible assets are stated at the fair value assigned in a business combination net of amortization. We amortize our amortizing intangible assets using the straight line method over their estimated economic lives ranging from 1 to 60 years. We review intangible assets with indefinite useful lives for impairment during the fourth quarter as of October 1 of each year. We also review both non-amortizing and amortizing intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of an intangible asset may not be recoverable. See Note 3 for additional information related to the use of estimates in the Company's intangible assets impairment tests and Note 13 for additional information on the intangible asset impairment charges recorded in 2018 and 2017.

Our acquired permits and licenses generally have renewal terms of approximately 5-10 years. We have a history of renewing these permits and licenses as demonstrated by the fact that each of the sites' treatment permits and licenses have been renewed regularly since the facility began operations. We intend to continue to renew our permits and licenses as they come up for renewal for the foreseeable future. Costs incurred to renew or extend the term of our permits and licenses are recorded in Selling, general and administrative expenses in our consolidated statements of operations.

Impairment of Long Lived Assets

Long-lived assets consist primarily of property and equipment facility development costs and amortizing intangible assets. The recoverability of long-lived assets is evaluated periodically through analysis of operating results and consideration of other significant events or changes in the business environment. If an operating unit had indications of possible impairment, we would evaluate whether impairment exists on the basis of undiscounted expected future cash flows from operations over the remaining amortization period. If an impairment loss were to exist, the carrying amount of the related long-lived assets would be reduced to their estimated fair value.

Deferred Financing Costs

Deferred financing costs are amortized over the life of our new senior secured credit agreement (the "2017 Credit Agreement"). Amortization of deferred financing costs is included as a component of interest expense in the consolidated statements of operations.

Deferred financing costs associated with the 2017 Credit Agreement were $2.7 million and $3.4 million, net of accumulated amortization and have been recorded in Prepaid expenses and other current assets and Other assets in the consolidated balance sheets as of December 31, 2018 and 2017, respectively.

The Company wrote off certain unamortized deferred financing costs and original issue discount associated with the 2014 Credit Agreement that were to be amortized to interest expense in future periods through a one-time charge of $5.5 million to Interest expense in the second quarter of 2017.

Table of Contents

Derivative Instruments

In order to manage interest rate exposure, we entered into an interest rate swap agreement in October 2014 that effectively converts a portion of our variable-rate debt to a fixed interest rate. Changes in the fair value of the interest rate swap are recorded as a component of accumulated other comprehensive income within stockholders' equity, and are recognized in interest expense in the period in which the payment is settled. The interest rate swap has an effective date of December 31, 2014 in an initial notional amount of $250.0 million. The Company does not hold or issue derivative financial instruments for trading or speculative purposes.

Foreign Currency

Our Canadian operations' functional currency is the Canadian dollar ("CAD"). Assets and liabilities are translated to U.S. dollars ("USD") at the exchange rate in effect at the balance sheet date and revenue and expenses at the average exchange rate for the period. Gains and losses from the translation of the consolidated financial statements of our Canadian subsidiaries into USD are included in stockholders' equity as a component of Accumulated other comprehensive income. Gains and losses resulting from foreign currency transactions are recognized in the consolidated statements of operations. Recorded balances that are denominated in a currency other than the functional currency are re measured to the functional currency using the exchange rate at the balance sheet date and gains or losses are recorded in the statements of operations.

Income Taxes

Income taxes are accounted for using an asset and liability approach. This requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of assets and liabilities at the applicable tax rates. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in the period that includes the enactment date.

We recognize deferred tax assets to the extent that we believe these assets are more likely than not to be realized. In making such a determination, we consider all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and results of recent operations. If we determine that we would be able to realize our deferred tax assets in the future in excess of their net recorded amount, we would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The application of income tax law is inherently complex. Tax laws and regulations are voluminous and at times ambiguous and interpretations of guidance regarding such tax laws and regulations change over time. This requires us to make many subjective assumptions and judgments regarding the timing and amounts of deductible and taxable items and the probability of sustaining uncertain tax positions. A liability for uncertain tax positions is recorded in our consolidated financial statements on the basis of a two-step process whereby (1) we determine whether it is more likely than not that the tax position taken will be sustained based on the technical merits of the position and (2) for those tax positions that meet the more likely than not recognition threshold, we recognize the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority. We recognize interest assessed by taxing authorities or interest associated with uncertain tax positions as a component of interest expense. We recognize any penalties assessed by taxing authorities or penalties associated with uncertain tax positions as a component of selling, general and administrative expenses. At December 31, 2018, our estimated gross unrecognized tax benefits were $555,000, of which $485,000, if recognized, would favorably impact our future earnings. Due to uncertainties in any tax audit outcome, our estimates of the ultimate settlement of our unrecognized tax positions may change and the actual tax benefits may differ significantly from the estimates. As facts and circumstances change, we reassess these probabilities and record any changes in the financial statements as appropriate. Our tax returns are subject to audit by the Internal Revenue Service ("IRS"), various states in the U.S. and the Canadian Revenue Agency.

Insurance

Accrued costs for our self insured health care coverage were $826,000 and $1.1 million at December 31, 2018 and 2017, respectively.

Table of Contents

Earnings Per Share

Basic earnings per share is calculated based on the weighted average number of outstanding common shares during the applicable period. Diluted earnings per share is based on the weighted average number of outstanding common shares plus the weighted average number of potential outstanding common shares. Potential common shares that would increase earnings per share or decrease loss per share are anti dilutive and are excluded from earnings per share computations. Earnings per share is computed separately for each period presented.

Treasury Stock

Shares of common stock repurchased by us are recorded at cost as treasury stock and result in a reduction of stockholders' equity in our consolidated balance sheets. Treasury shares are reissued using the weighted average cost method for determining the cost of the shares reissued. The difference between the cost of the shares reissued and the issuance price is added or deducted from additional paid in capital.

Recently Issued Accounting Pronouncements

In February 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2018-02, Income Statement-Reporting Comprehensive Income (Topic 220). This ASU allows for an optional one-time reclassification from accumulated other comprehensive income (loss) to retained earnings for the stranded tax effects resulting from the new corporate tax rate under the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The new guidance requires additional disclosures, regardless of whether the optional reclassification is elected. This ASU is effective for fiscal years and interim periods beginning after December 15, 2018, with early adoption permitted, and may be applied retrospectively or as of the beginning of the period of adoption. The Company has elected not to make this optional reclassification.

On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118"), which provides guidance on accounting for the tax effects of the Tax Act. SAB 118 provided a measurement period that should not extend beyond one year from the Tax Act enactment date for companies to complete the accounting under Accounting Standards Codification ("ASC") 740. December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, we have completed our analysis based on legislative updates relating to the Tax Act currently available, which resulted in a net benefit for measurement period adjustments of $193,000 for the year ended December 31, 2018. The total tax provision benefit included a $2.2 million benefit related to the re-measurement of certain deferred tax assets and liabilities offset by $2.0 million of expense related to adjustments to the transition tax.

The Tax Act also includes provisions to tax Global Intangible Low-Taxed Income ("GILTI") of foreign subsidiaries in excess of a deemed return on their tangible assets. Pursuant to the Tax Act, corporations are allowed to make an accounting policy election to either (1) account for GILTI as a component of income tax expense in the period in which the corporation is subject to the rules (the "period cost method"), or (2) account for GILTI in the corporation's measurement of deferred taxes (the "deferred method"). In the fourth quarter of 2018, the Company elected to treat any potential GILTI inclusions as a period cost.

In August 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging (Topic 815). This ASU amends the guidance in ASC 815 to better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The guidance is effective for annual and interim reporting periods beginning after December 15, 2018, with early adoption permitted. The Company is currently evaluating the impact ASU 2017-12 will have on its consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, Restricted Cash (Topic 230). This ASU amends the guidance in ASC 230 to add or clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. ASU 2016-18 is based on the Emerging Issues Task Force's consensuses reached on Issue 16-A. The guidance is effective for annual and interim periods beginning after December 15, 2017. The Company adopted ASU 2016-18 as of January 1, 2018 using the retrospective adoption method. The impact of retrospective application of ASU 2016-18 is not material, as restricted cash activity for the years ended December 31, 2018, 2017, and 2016 was not deemed to be significant. Restricted cash is now included with Cash and cash equivalents when reconciling the beginning-of-period and end-of-period amounts presented in the Company's consolidated statements of cash flows.

In August 2016, the FASB issued ASU No. 2016-15, Statements of Cash Flows (Topic 230). This ASU amends the guidance in ASC 230 on the classification of certain cash receipts and payments in the statement of cash flows. The primary purpose of the ASU is to reduce the diversity in practice that has resulted from the lack of consistent principles on this topic. The guidance is effective for annual and interim periods beginning after December 15, 2017. The Company adopted ASU 2016-15 as of January 1, 2018 using the retrospective adoption method. The only provision applicable to the Company relates to the treatment of proceeds from the settlement of insurance claims in connection with damaged property and equipment. The impact of retrospective application of ASU 2016-15 was a reclassification of insurance proceeds related to damaged property and equipment of $1.3 million and $654,000 from cash flows from operating activities to cash flows from investing activities in the statement of cash flows for the years ended December 31, 2017 and 2016, respectively.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). The ASU significantly changes the accounting model used by lessees to account for leases, requiring that all material leases be presented on the balance sheet. Lessees will recognize substantially all leases on the balance sheet as a right-of-use asset and a corresponding lease liability. The liability will be equal to the present value of lease payments. The asset will be based on the liability, subject to adjustment, such as for initial direct costs. The guidance is effective for annual and interim periods beginning after December 15, 2018. Early adoption is permitted. In July 2018, the FASB issued ASU No. 2018-11 which provides a practical expedient that allows companies to use an optional transition method. Under the optional transition method, a cumulative adjustment to retained earnings during the period of adoption is recorded and prior periods would not require restatement. The Company will adopt ASU 2016-02 in the first quarter of 2019 utilizing this optional transitional method. While we are continuing to assess the potential impacts of ASU 2016-02, the Company estimates that the adoption of the ASU 2016-02 will result in the recognition of right-of-use assets and lease liabilities for operating leases of approximately $18 million on its consolidated balance sheets, with no material impact on its consolidated statements of operations.

In May 2014, the FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), which provides guidance for revenue recognition. The ASU's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The Company adopted Topic 606 as of January 1, 2018 using the modified retrospective transition method. See Note 4 for additional information.

NOTE 3. USE OF ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Listed below are the estimates and assumptions that we consider to be significant in the preparation of our consolidated financial statements.

· Allowance for Doubtful Accounts - We estimate losses for uncollectible accounts based on the aging of the accounts receivable and an evaluation of the likelihood of success in collecting the receivable.
· Recovery of Long Lived Assets - We evaluate the recovery of our long lived assets periodically by analyzing our operating results and considering significant events or changes in the business environment.
· Income Taxes - We assume the deductibility of certain costs in our income tax filings, estimate our income tax rate

Table of Contents

and estimate the future recovery of deferred tax assets.

- Legal and Environmental Accruals - We estimate the amount of potential exposure we may have with respect to litigation and environmental claims and assessments.
- Disposal Cell Development and Final Closure/Post Closure Amortization - We expense amounts for disposal cell usage and closure and post closure costs for each cubic yard of waste disposed of at our operating facilities. In determining the amount to expense for each cubic yard of waste disposed, we estimate the cost to develop each disposal cell and the closure and post closure costs for each disposal cell and facility. The expense for each cubic yard is then calculated based on the remaining permitted capacity and total permitted capacity. Estimates for closure and post closure costs are developed using input from third party engineering consultants, and our internal technical and accounting personnel. Management reviews estimates at least annually. Estimates for final disposal cell closure and post closure costs consider when the costs would actually be paid and, where appropriate, inflation and discount rates.
- Business Acquisitions - The Company records assets and liabilities of the acquired business at their fair values. Acquisition related transaction and restructuring costs are expensed rather than treated as part of the cost of the acquisition. Goodwill represents the excess of the cost of an acquired business over the fair value of the identifiable tangible and intangible assets acquired and liabilities assumed in a business acquisition.
- Goodwill - We assess goodwill for impairment during the fourth quarter as of October 1 of each year or sooner if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The assessment consists of comparing the estimated fair value of the reporting unit to the carrying value of the net assets assigned to the reporting unit, including goodwill. Fair values are generally determined by using both the market approach, applying a multiple of earnings based on guideline for publicly traded companies, and the income approach, discounting projected future cash flows based on our expectations of the current and future operating environment. The rates used to discount projected future cash flows reflect a weighted average cost of capital based on our industry, capital structure and risk premiums including those reflected in the current market capitalization. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. Failure to execute on planned growth initiatives within the related reporting units, coupled with the other factors mentioned above, could lead to the impairment of goodwill and other long-lived assets in future periods.
- Intangible Assets - We review intangible assets with indefinite useful lives for impairment during the fourth quarter as of October 1 of each year. Fair value is generally determined by considering an internally-developed discounted projected cash flow analysis. If the fair value of an asset is determined to be less than the carrying amount of the intangible asset, an impairment in the amount of the difference is recorded in the period in which the annual assessment occurs.

We also review amortizing intangible assets for impairment whenever events or changes in circumstances indicate that the carrying value of an intangible asset may not be recoverable. In order to assess whether a potential impairment exists, the assets' carrying values are compared with their undiscounted expected future cash flows. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. Impairments are measured by comparing the fair value of the asset to its carrying value. Fair value is generally determined by considering: (i) the internally-developed discounted projected cash flow analysis; (ii) a third party valuation; and/or (iii) information available regarding the current market environment for similar assets. If the fair value is determined to be less than the carrying amount of the intangible assets, an impairment in the amount of the difference is recorded in the period in which the events or changes in circumstances that indicated the carrying value of the intangible assets may not be recoverable occurred.

Actual results could differ materially from the estimates and assumptions that we use in the preparation of our consolidated financial statements. As it relates to estimates and assumptions in amortization rates and environmental obligations, significant engineering, operations and accounting judgments are required. We review these estimates and assumptions no less than annually. In many circumstances, the ultimate outcome of these estimates and assumptions will not be known for

Table of Contents

decades into the future. Actual results could differ materially from these estimates and assumptions due to changes in applicable regulations, changes in future operational plans and inherent imprecision associated with estimating environmental impacts far into the future.

NOTE 4. REVENUES

Adoption of ASC Topic 606, “Revenue from Contracts with Customers”

As of January 1, 2018, we adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Revenue Recognition (Topic 605).

Adoption of the guidance did not materially affect the timing or amount of revenue recognized, and no cumulative effect adjustment was recognized as a result of initially applying Topic 606.

Disaggregation of Revenue

Our operations are managed in two reportable segments, Environmental Services and Field & Industrial Services, reflecting our internal reporting structure and nature of services offered. The operations not managed through our two reportable segments are recorded as Corporate. See Note 21 for additional information.

Effective December 31, 2018, we changed our presentation of disaggregated revenues to align with changes in how we manage our service lines within our Field & Industrial Services segment. Revenues previously combined and reported as Technical Services are now disaggregated into two service lines, Small Quantity Generation (“SQG”) and Total Waste Management (“TWM”) and certain revenues formerly classified as Technical Services were reclassed to Remediation. Also, marine terminal services revenues, formerly classified as Other, are now included in Industrial Services. Throughout this Annual Report on Form 10-K, our disaggregated revenues for all periods presented have been recast to reflect these changes.

The following table presents our revenue disaggregated by our reportable segments and service lines:

	2018		
$s in thousands	Environmental Services	Field & Industrial Services	Total
Treatment & Disposal Revenue (1)	$ 319,282	$ 12,865	$ 332,147
Services Revenue:			
Transportation and Logistics (2)	81,396	33,037	114,433
Industrial Services (3)	—	24,155	24,155
Small Quantity Generation (4)	—	34,571	34,571
Total Waste Management (5)	—	41,729	41,729
Remediation (6)	—	10,139	10,139
Other (7)	—	8,754	8,754
Revenue	$ 400,678	$ 165,250	$ 565,928

Table of Contents

	2017		
$s in thousands	Environmental Services	Field & Industrial Services	Total
Treatment & Disposal Revenue (1)	$ 298,871	$ 11,084	$ 309,955
Services Revenue:			
Transportation and Logistics (2)	67,437	21,898	89,335
Industrial Services (3)	—	19,121	19,121
Small Quantity Generation (4)	—	29,934	29,934
Total Waste Management (5)	—	38,628	38,628
Remediation (6)	—	14,241	14,241
Other (7)	—	2,828	2,828
Revenue	$ 366,308	$ 137,734	$ 504,042

	2016		
$s in thousands	Environmental Services	Field & Industrial Services	Total
Treatment & Disposal Revenue (1)	$ 275,457	$ 12,680	$ 288,137
Services Revenue:			
Transportation and Logistics (2)	62,314	17,812	80,126
Industrial Services (3)	—	22,440	22,440
Small Quantity Generation (4)	—	33,043	33,043
Total Waste Management (5)	—	30,688	30,688
Remediation (6)	—	21,908	21,908
Other (7)	—	1,323	1,323
Revenue	$ 337,771	$ 139,894	$ 477,665

(1) We categorize our treatment and disposal revenue as either “Base Business” or “Event Business” based on the underlying nature of the revenue source. 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. For the years ended December 31, 2018, 2017 and 2016, 20%, 22% and 18%, respectively, of our treatment and disposal revenue was derived from Event Business projects. Base Business revenue accounted for 80%, 78% and 82% of our treatment and disposal revenue for the years ended December 31, 2018, 2017 and 2016, respectively.

(2) Includes such services as collection and transportation of non-hazardous and hazardous waste.

(3) Includes such services as industrial cleaning and maintenance for refineries, chemical plants, steel and automotive plants, marine terminals and refinery services such as tank cleaning and temporary storage.

(4) Includes such services as retail services, laboratory packing, less-than-truck-load service and household hazardous waste collection. Contracts for Small Quantity Generation may extend beyond one year and a portion of the transaction price can be fixed.

(5) 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. TWM contracts may extend beyond one year and a portion of the transaction price can be fixed.

(6) Includes such services as site assessment, onsite treatment, project management and remedial action planning and execution. Contracts for Remediation may extend beyond one year and a portion of the transaction price can be fixed.
(7) Includes emergency response and other services.

Table of Contents

We provide services in the United States and Canada. The following table presents our revenue disaggregated by our reportable segments and geographic location where the underlying services were performed:

	2018			2017			2016	
$s in thousands	Environmental Services	Field & Industrial Services	Total	Environmental Services	Field & Industrial Services	Total	Environmental Services	Field & Industrial Services
United States	$ 329,918	$ 165,250	$ 495,168	$ 296,777	$ 137,734	$ 434,511	$ 288,884	$ 139,894
Canada	70,760	—	70,760	69,531	—	69,531	48,887	—
Total revenue	$ 400,678	$ 165,250	$ 565,928	$ 366,308	$ 137,734	$ 504,042	$ 337,771	$ 139,894

Principal versus Agent Considerations

The Company commonly contracts with third-parties to perform certain waste-related services that we have promised in our customer contracts. We consider ourselves the principal in these arrangements as we direct the timing, nature and pricing of the services ultimately provided by the third-party to the customer.

Costs to Obtain a Contract

The Company pays sales commissions to employees, which qualify as costs to obtain a contract. Sales commissions are expensed as incurred as the commissions are earned by the employee and paid by the Company over time as the related revenue is recognized.

Practical Expedients and Optional Exemptions

Our payment terms may vary based on type of service or customer; however, we do not adjust the promised amount of consideration in our contracts for the time value of money as payment terms extended to our customers do not exceed one year and are not considered a significant financing component in our contracts.

We do not disclose the value of unsatisfied performance obligations as contracts with an original expected length of more than one year and contracts for which we do not recognize revenue at the amount to which we have the right to invoice for services performed is insignificant and the aggregate amount of fixed consideration allocated to unsatisfied performance obligations is not material.

Table of Contents

NOTE 5. BUSINESS COMBINATIONS

ES&H of Dallas, LLC

On August 31, 2018, the Company acquired ES&H of Dallas, LLC ("ES&H Dallas"), which provides emergency and spill response, light industrial services and transportation and logistics for waste disposal and recycling from locations in Dallas and Midland, Texas. The total purchase price was $21.3 million and was funded with cash on hand. The ES&H Dallas facilities are reported as part of our Field and Industrial Services segment. The Company assessed the revenues, net income, earnings per share and total assets of ES&H Dallas and concluded they are not material to our consolidated financial position or results of operations either individually or when aggregated with other acquisitions completed in 2018. As such, pro forma financial information has not been provided.

We allocated the purchase price to the assets acquired based on preliminary estimates of the fair value at the date of acquisition, resulting in $10.0 million allocated to property and equipment and other current assets, $7.1 million allocated to goodwill and $4.2 million allocated to intangible assets (consisting primarily of customer relationships) to be amortized over a weighted average life of approximately 13 years. No liabilities were assumed in the acquisition. The purchase price allocation is preliminary, as estimates and assumptions are subject to change as more information becomes available.

Goodwill of $7.1 million arising from the acquisition is attributable to the assembled workforce and the future economic benefits of synergies with our other Texas facilities and expansion into new markets. All of the goodwill recognized was assigned to our Field & Industrial Services segment and is expected to be deductible for income tax purposes over a 15-year amortization period.

Ecoserv Industrial Disposal, LLC

On November 14, 2018, the Company acquired Ecoserv Industrial Disposal, LLC ("Winnie"), which provides non-hazardous industrial wastewater disposal solutions and employs deep-well injection technology in the southern United States. The total purchase price was $87.1 million and was funded with $87.0 million in borrowings under the 2017 Credit Agreement and cash on hand. The purchase price is subject to post-closing adjustments based on agreed upon working capital requirements. Post-closing adjustments are expected to be finalized and settled in 2019. Winnie is reported as part of our Environmental Services segment. The Company assessed the revenues, net income, earnings per share and total assets of Winnie and concluded they are not material to our consolidated financial position or results of operations either individually or when aggregated with other acquisitions completed in 2018. As such, pro forma financial information has not been provided.

Table of Contents

We allocated the purchase price to the assets acquired and liabilities assumed based on preliminary estimates of the fair value at the date of acquisition. The purchase price allocation is preliminary, as estimates and assumptions are subject to change as more information becomes available. The following table summarizes the consideration paid for Winnie and the preliminary fair value estimates of assets acquired and liabilities assumed recognized at the acquisition date:

$s in thousands	Purchase Price Allocation
Current assets	$ 1,923
Property and equipment	6,300
Identifiable intangible assets	66,600
Current liabilities	(755)
Other liabilities	(512)
Total identifiable net assets	73,556
Goodwill	13,573
Total purchase price	$ 87,129

The preliminary fair value of identifiable intangible assets related to the acquisition of Winnie consisted of $54.8 million in permits to be amortized over a life of 60 years, and $11.8 million in customer relationships to be amortized over a life of 15 years.

Goodwill of $13.6 million arising from the acquisition is attributable to the future economic benefits of expansion into the deep-well injection market and the assembled workforce. All of the goodwill recognized was assigned to our Environmental Services segment and is expected to be deductible for income tax purposes over a 15-year amortization period.

Environmental Services Inc.

On May 2, 2016, the Company acquired 100% of the outstanding shares of Environmental Services Inc., (“ESI”), an environmental services company based in Tilbury, Ontario, Canada. ESI is focused primarily on hazardous and non-hazardous transportation and disposal, hazardous and non-hazardous waste treatment, industrial services, confined space rescue and emergency response work throughout Ontario. The total purchase price was $4.9 million, net of cash acquired, and was funded with cash on hand. ESI is reported as part of our Environmental Services segment, however, revenues, net income, earnings per share and total assets of ESI are not material to our consolidated financial position or results of operations.

We allocated the purchase price to the assets acquired and liabilities assumed based on estimates of the fair value at the date of the acquisition, resulting in $1.0 million allocated to goodwill (which is not deductible for tax purposes), $813,000 allocated to intangible assets (primarily customer relationships) to be amortized over a weighted average life of approximately 14 years, and $686,000 allocated to non-amortizing environmental permits. All of the goodwill recognized was assigned to our Environmental Services segment and is expected to be deductible for income tax purposes over a 15-year amortization period.

Acquisition of Vernon, California Facility

On October 1, 2016, we acquired the Vernon, California based RCRA Part B, liquids and solids waste treatment and storage facility of Evoqua Water Technologies LLC for $5.0 million. The Vernon, California facility is reported as part of our Environmental Services segment, however, revenues, net income, earnings per share and total assets of the Vernon, California facility are not material to our consolidated financial position or results of operations.

We allocated the purchase price to the assets acquired and liabilities assumed based on estimates of the fair value at the date of the acquisition, resulting in $354,000 allocated to goodwill, $1.9 million allocated to intangible assets (primarily customer relationships) to be amortized over a weighted average life of approximately 20 years, and $1.3 million allocated to non-amortizing environmental permits. All of the goodwill recognized was assigned to our Environmental Services segment and is expected to be deductible for income tax purposes over a 15-year amortization period.

Table of Contents

NOTE 6. DIVESTITURES

Divestiture of Augusta, Georgia Facility

On April 5, 2016, we completed the divestiture of our Augusta, Georgia facility for cash proceeds of $1.9 million. The Augusta, Georgia facility was reported as part of our Environmental Services segment. Sales, net income and total assets of the Augusta, Georgia facility are not material to our consolidated financial position or results of operations in any period presented. We recognized a $1.9 million pre-tax gain on the divestiture of the Augusta, Georgia facility, which is included in Other income (expense) in our consolidated statements of operations for the year ended December 31, 2016.

NOTE 7. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Changes in accumulated other comprehensive income (loss) ("AOCI") consisted of the following:

$s in thousands	Foreign Currency Translation	Unrealized Gain (Loss) on Interest Rate Hedge	Total
Balance at December 31, 2016	$ (12,649)	$ (2,076)	$ (14,725)
Other comprehensive income before reclassifications, net of tax	4,046	45	4,091
Amounts reclassified out of AOCI, net of tax (1)	—	1,530	1,530
Other comprehensive income, net	4,046	1,575	5,621
Balance at December 31, 2017	$ (8,603)	$ (501)	$ (9,104)
Other comprehensive income (loss) before reclassifications, net of tax	(6,094)	1,111	(4,983)
Amounts reclassified out of AOCI, net of tax (2)	—	296	296
Other comprehensive income, net	(6,094)	1,407	(4,687)
Balance at December 31, 2018	$ (14,697)	$ 906	$ (13,791)

(1) Before-tax reclassifications of $2.3 million ($1.5 million after-tax) for the year ended December 31, 2017 were included in Interest expense in the Company's consolidated statements of operations. Amount relates to the Company's interest rate swap which is designated as a cash flow hedge. Changes in fair value of the swap recognized in AOCI are reclassified to interest expense when hedged interest payments on the underlying long-term debt are made.

(2) Before-tax reclassifications of $375,000 ($296,000 after-tax) for the year ended December 31, 2018 were included in Interest expense in the Company's consolidated statements of operations. Amount relates to the Company's interest rate swap which is designated as a cash flow hedge. Changes in fair value of the swap recognized in AOCI are reclassified to interest expense when hedged interest payments on the underlying long-term debt are made. Amounts in AOCI expected to be recognized as a reduction of interest expense over the next 12 months total approximately $229,000 ($181,000 after tax).

Table of Contents

NOTE 8. DISCLOSURE OF SUPPLEMENTAL CASH FLOW INFORMATION

	For the Year Ended December 31,		
$s in thousands	2018	2017	2016
Income taxes and interest paid:			
Income taxes paid, net of receipts	$ 19,580	$ 10,714	$ 25,729
Interest paid	11,246	11,364	14,304
Non-cash investing and financing activities:			
Closure/Post-closure retirement asset	99	(352)	426
Capital expenditures in accounts payable	1,601	2,302	2,906
Acquisition of equipment with financing arrangements	747	531	1,156
Restricted stock issuances from treasury shares	11	105	408

NOTE 9. FAIR VALUE MEASUREMENTS

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Assets and liabilities recorded at fair value are categorized using defined hierarchical levels directly related to the amount of subjectivity associated with the inputs to fair value measurements, as follows:

Level 1 - Quoted prices in active markets for identical assets or liabilities;

Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable;

Level 3 - Unobservable inputs in which little or no market activity exists, requiring an entity to develop its own assumptions that market participants would use to value the asset or liability.

The Company’s financial instruments consist of cash and cash equivalents, accounts receivable, restricted cash and investments, accounts payable and accrued liabilities, debt and interest rate swap agreements. The estimated fair value of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their carrying value due to the short-term nature of these instruments.

The Company estimates the fair value of its variable-rate debt using Level 2 inputs, such as interest rates, related terms and maturities of similar obligations. At December 31, 2018, the carrying value of the Company’s variable-rate debt approximates fair value due to the short-term nature of the interest rates.

The Company’s assets and liabilities measured at fair value on a recurring basis at December 31, 2018 and 2017 consisted of the following:

	2018		
	Quoted Prices in Active Markets	Other Observable Inputs	Unobservable Inputs

$s in thousands	(Level 1)	(Level 2)	(Level 3)	Total
Assets:				
Fixed-income securities (1)	$ 1,561	$ 2,596	$ —	$ 4,157
Money market funds (2)	784	—	—	784
Interest rate swap agreement (3)	—	1,147	—	1,147
Total	$ 2,345	$ 3,743	$ —	$ 6,088

Table of Contents

$s in thousands	2017 Quoted Prices in Active Markets (Level 1)	Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)	Total
Assets:				
Fixed-income securities (1)	$ 1,396	$ 2,649	$ —	$ 4,045
Money market funds (2)	1,757	—	—	1,757
Total	$ 3,153	$ 2,649	$ —	$ 5,802
Liabilities:				
Interest rate swap agreement (3)	$ —	$ 638	$ —	$ 638
Total	$ —	$ 638	$ —	$ 638

(1) We invest a portion of our Restricted cash and investments in fixed income securities, including U.S. Treasury and U.S. agency securities. We measure the fair value of U.S. Treasury securities using quoted prices for identical assets in active markets. We measure the fair value of U.S. agency securities using observable market activity for similar assets. The fair value of our fixed income securities approximates our cost basis in the investments.

(2) We invest a portion of our Restricted cash and investments in money market funds. We measure the fair value of these money market fund investments using quoted prices for identical assets in active markets. Money market funds are considered restricted cash for purposes of reconciling the beginning-of-period and end-of-period amounts presented in the Company's consolidated statements of cash flows.

(3) In order to manage interest rate exposure, we entered into an interest rate swap agreement in October 2014 that effectively converts a portion of our variable-rate debt to a fixed interest rate. The swap is designated as a cash flow hedge, with gains and losses deferred in other comprehensive income to be recognized as an adjustment to interest expense in the same period that the hedged interest payments affect earnings. The interest rate swap has an effective date of December 31, 2014 with an initial notional amount of $250.0 million. The fair value of the interest rate swap agreement represents the difference in the present value of cash flows calculated at the contracted interest rates and at current market interest rates at the end of the period. We calculate the fair value of the interest rate swap agreement quarterly based on the quoted market price for the same or similar financial instruments. The fair value of the interest rate swap agreement is included in Other assets and Other long-term liabilities in the Company's consolidated balance sheets as of December 31, 2018 and 2017, respectively.

NOTE 10. CONCENTRATIONS AND CREDIT RISK

Major Customers

No customer accounted for more than 10% of total revenue for the years ended December 31, 2018, 2017 or 2016.

No customer accounted for more than 10% of total receivables as of December 31, 2018 or 2017.

Credit Risk Concentration

We maintain most of our cash and cash equivalents with nationally recognized financial institutions. Substantially all balances are uninsured and are not used as collateral for other obligations. Concentrations of credit risk on accounts receivable are believed to be limited due to the number, diversification and character of the obligors and our credit evaluation process.

Labor Concentrations

As of December 31, 2018, 28 employees were represented by the Paper, Allied-Industrial Chemical & Energy Workers International Union, AFL-CIO, CLC (PACE) on behalf of Local 9777 and Local 12-369; 122 employees at our Blainville, Québec, Canada facility were represented by the Communications, Energy and Paperworkers Union of Canada; 143

Table of Contents

employees were represented by the Local 324 Operating Engineers Union; and 48 employees were represented by the International Brotherhood of Teamsters on behalf of Local 283, Local 560, and Local 728. As of December 31, 2018, our 1,382 other employees did not belong to a union.

NOTE 11. RECEIVABLES

Receivables as of December 31, 2018 and 2017 consisted of the following:

$s in thousands	2018	2017
Trade	$ 118,909	$ 96,760
Unbilled revenue	26,538	16,176
Other	2,241	637
Total receivables	147,688	113,573
Allowance for doubtful accounts	(2,998)	(2,796)
Receivables, net	$ 144,690	$ 110,777

The allowance for doubtful accounts is a provision for uncollectible accounts receivable and unbilled receivables. The allowance is evaluated and adjusted to reflect our collection history and an analysis of the accounts receivables aging. The allowance is decreased by accounts receivable as they are written off. The allowance is adjusted periodically to reflect actual experience. The change in the allowance during 2018, 2017 and 2016 was as follows:

$s in thousands	Balance at Beginning of Period	Charged (Credited) to Costs and Expenses	Recoveries (Deductions/ Write-offs)	Adjustments	Balance at End of Period
Year ended December 31, 2018	$ 2,796	$ 436	$ (213)	$ (21)	$ 2,998
Year ended December 31, 2017	$ 2,334	$ 704	$ (255)	$ 13	$ 2,796
Year ended December 31, 2016	$ 3,226	$ (186)	$ (705)	$ (1)	$ 2,334

NOTE 12. PROPERTY AND EQUIPMENT

Property and equipment as of December 31, 2018 and 2017 consisted of the following:

$s in thousands	2018	2017
Cell development costs	$ 146,155	$ 142,144
Land and improvements	50,481	36,499
Buildings and improvements	91,358	87,034
Railcars	17,299	17,299
Vehicles and other equipment	154,014	122,697
Construction in progress	14,554	23,334

Total property and equipment	473,861	429,007
Accumulated depreciation and amortization	(215,418)	(194,575)
Property and equipment, net	$ 258,443	$ 234,432

Depreciation and amortization expense was $29.2 million, $28.3 million and $25.3 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Table of Contents

NOTE 13. GOODWILL AND INTANGIBLE ASSETS

Changes in goodwill for the years ended December 31, 2018 and 2017 were as follows:

	Environmental Services		Field & Industrial Services		
$s in thousands	Gross	Accumulated Impairment	Gross	Accumulated Impairment	Total
Balance at December 31, 2016	$ 149,490	$ —	$ 44,131	$ —	$ 193,621
Impairment charges	—	(5,457)	—	—	(5,457)
Foreign currency translation and other adjustments	1,209	—	—	—	1,209
Balance at December 31, 2017	$ 150,699	$ (5,457)	$ 44,131	$ —	$ 189,373
ES&H Dallas acquisition	—	—	7,100	—	7,100
Winnie acquisition	13,573	—	—	—	13,573
Impairment charges	—	(1,413)	—	—	(1,413)
Foreign currency translation	(1,456)	—	—	—	(1,456)
Balance at December 31, 2018	$ 162,816	$ (6,870)	$ 51,231	$ —	$ 207,177

We assess goodwill for impairment during the fourth quarter as of October 1 of each year, and also if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The assessment consists of comparing the fair value of the reporting unit to the carrying value of the net assets assigned to the reporting unit, including goodwill.

Fair values are generally determined by using a market approach, applying a multiple of earnings based on guideline for publicly traded companies, an income approach, discounting projected future cash flows based on our expectations of the current and future operating environment, or a combination thereof. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. The rates used to discount projected future cash flows reflect a weighted average cost of capital based on our industry, capital structure and risk premiums including those reflected in the current market capitalization.

In connection with our annual budgeting process commencing in the third quarter of 2018 and review of the projected future cash flows of our reporting units used in our annual assessment of goodwill, it was determined that the projected future cash flows of our Mobile Recycling reporting unit (described below), which is part of our Environmental Services segment, indicated that the fair value of the reporting unit may be below its carrying amount. Accordingly, we performed an interim assessment of the reporting unit’s goodwill as of September 30, 2018. Based on the results of that assessment, goodwill was deemed impaired and we recognized an impairment charge of $1.4 million in the third quarter of 2018, representing the reporting unit’s entire goodwill balance.

Our Mobile Recycling reporting unit operates a fleet of mobile solvent recycling stills that provide on-site recycling services throughout the Eastern United States. The factors contributing to the $1.4 million goodwill impairment charge principally related to declining business and cash flows, which negatively impacted the reporting unit’s prospective

85

Table of Contents

financial information in its discounted cash flow model and the reporting unit's estimated fair value as compared to previous estimates.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2018 indicated that the fair value of each of our reporting units was in excess of its respective carrying value.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2017 indicated that the fair value of each of our reporting units was in excess of its respective carrying value, with the exception of the Resource Recovery reporting unit.

In performing the annual goodwill impairment test, the estimated fair value of the Resource Recovery reporting unit was determined under an income approach using discounted projected future cash flows and then compared to the reporting unit's carrying amount as of October 1, 2017. Based on the results of that evaluation, the carrying amount of the Resource Recovery reporting unit, including $5.5 million of goodwill, exceeded the estimated fair value of the reporting unit by more than $5.5 million and, as a result, we recognized a $5.5 million impairment charge, representing the reporting unit's entire goodwill balance, in the fourth quarter of 2017.

Our Resource Recovery reporting unit offers full-service storm water management and propylene glycol ("PG") deicing fluid recovery at major airports. Recovered fluids are transported to our recycling facility where they are distilled and resold to industrial users. The Resource Recovery reporting unit also generates revenues from brokered PG sales and services revenues for PG collection at the airports we service. The factors contributing to the $5.5 million goodwill impairment charge principally related to weak PG commodity prices and reduced PG collection volumes at the airports we service, which negatively impacted the reporting unit's prospective financial information in its discounted cash flow model and the reporting unit's estimated fair value. A longer-than-expected recovery in PG commodity pricing and PG collection volumes became evident during the fourth quarter of 2017 as management completed its 2018 budgeting cycle and updated the long-term projections for the reporting unit which, as a result, decreased the reporting unit's anticipated future cash flows as compared to those estimated previously.

Intangible assets as of December 31, 2018 and 2017 consisted of the following:

	2018			2017		
$s in thousands	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Amortizing intangible assets:						
Permits, licenses and lease	$ 164,840	$ (14,804)	$ 150,036	$ 111,818	$ (12,459)	$ 99,359
Customer relationships	99,241	(25,676)	73,565	84,977	(20,168)	64,809
Technology - formulae and processes	6,672	(1,714)	4,958	7,250	(1,630)	5,620
Customer backlog	3,652	(1,656)	1,996	3,652	(1,291)	2,361
Developed software	2,884	(1,581)	1,303	2,926	(1,319)	1,607
Non-compete agreements	1,542	(875)	667	748	(748)	—
Internet domain and website	536	(128)	408	540	(100)	440
Database	384	(167)	217	393	(153)	240
	279,751	(46,601)	233,150	212,304	(37,868)	174,436

Total amortizing intangible assets						
Non-amortizing intangible assets:						
Permits and licenses	46,391	—	46,391	48,241	—	48,241
Tradename	125	—	125	135	—	135
Total intangible assets	$ 326,267	$ (46,601)	$ 279,666	$ 260,680	$ (37,868)	$ 222,812

We review non-amortizing intangible assets for impairment during the fourth quarter as of October 1 of each year. Fair value is generally determined by considering an internally-developed discounted projected cash flow analysis. Estimating future cash flows requires significant judgment about factors such as general economic conditions and projected growth rates, and our estimates often vary from the cash flows eventually realized. If the fair value of an asset is determined to be less than the carrying amount of the intangible asset, an impairment in the amount of the difference is recorded in the period in which the annual assessment occurs.

Table of Contents

In connection with the interim goodwill impairment assessment of the Mobile Recycling reporting unit, we also assessed the reporting unit's non-amortizing permit intangible asset and other amortizing tangible and intangible assets for impairment as of September 30, 2018. Based on the results of that assessment, the carrying amounts of the non-amortizing permit intangible asset and other amortizing intangible assets exceeded their estimated fair values and, as a result, we recognized a $2.3 million impairment charge in the third quarter of 2018. The factors and timing contributing to the non-amortizing intangible asset and the other amortizing intangible assets impairment charges were the same as the factors and timing described above with regards to the Mobile Recycling reporting unit goodwill impairment charge.

The result of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2018 indicated no impairment charges were required.

On August 31, 2018, the Company acquired ES&H Dallas and recorded $7.1 million of goodwill and $4.2 million of amortizing intangible assets (consisting primarily of customer relationships) as a result of the acquisition. See Note 5 for additional information.

On November 14, 2018, the Company acquired Winnie and recorded $13.6 million of goodwill and $66.6 million of amortizing intangible assets (consisting of permits and customer relationships) as a result of the acquisition. See Note 5 for additional information.

The result of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2017 indicated no impairment charges were required, with the exception of the non-amortizing intangible waste collection, recycling and resale permit associated with our Resource Recovery business.

In performing the annual non-amortizing intangible assets impairment test, the estimated fair value of the Resource Recovery waste collection, recycling and resale permit was determined under an income approach using discounted projected future cash flows associated with the permit and then compared to the $3.7 million carrying amount of the permit as of October 1, 2017. Based on the results of that evaluation, the carrying amount of the permit exceeded the estimated fair value of the permit and, as a result, we recognized a $3.4 million impairment charge in the fourth quarter of 2017. The factors and timing contributing to the non-amortizing permit impairment charge were the same as the factors and timing described above with regards to the Resource Recovery reporting unit goodwill impairment charge.

In the fourth quarter of 2017, we performed an assessment of the Resource Recovery business' amortizing tangible and intangible assets, as events indicated their carrying values may not be recoverable. The result of the assessment indicated no impairment charges were required.

Amortization expense relating to intangible assets was $9.6 million, $9.9 million and $10.6 million for the years ended December 31, 2018, 2017 and 2016, respectively. Foreign intangible asset carrying amounts are affected by foreign currency translation. Future amortization expense of amortizing intangible assets is expected to be as follows:

$s in thousands	Expected Amortization
2019	$ 11,406
2020	11,273
2021	11,006
2022	11,006
2023	10,850

Thereafter	177,609
	$ 233,150

87

Table of Contents

NOTE 14. EMPLOYEE BENEFIT PLANS

Defined Contribution Plans

We maintain the US Ecology, Inc., 401(k) Savings and Retirement Plan (“the Plan”) for employees who voluntarily contribute a portion of their compensation, thereby deferring income for federal income tax purposes. The Plan covers substantially all of our employees in the United States. Participants may contribute a percentage of salary up to the IRS limitations. The Company contributes a matching contribution equal to 55% of participant contributions up to 6% of eligible compensation. The Company contributed matching contributions to the Plan of $2.5 million, $2.1 million and $1.9 million in 2018, 2017 and 2016, respectively.

We also maintain the Stablex Canada Inc. Simplified Pension Plan (“the SPP”). This defined contribution plan covers substantially all of our employees at our Blainville, Québec facility in Canada. Employees represented by the Communications, Energy and Paperworkers Union of Canada receive a Company contribution equal to 8.5% of eligible compensation. Employees not represented by the union receive a base Company contribution equal to 5% of eligible compensation and an additional matching contribution in an amount up to 2% of eligible compensation. The Company contributed $653,000, $556,000 and $507,000 to the SPP in 2018, 2017 and 2016, respectively.

Multi-Employer Defined Benefit Pension Plans

Certain of the Company’s wholly-owned subsidiaries participate in three multi-employer defined benefit pension plans under the terms of collective bargaining agreements covering most of the subsidiaries’ union employees. Contributions are determined in accordance with the provisions of negotiated labor contracts and are generally based on stipulated rates per hours worked. Benefits under these plans are generally based on compensation levels and years of service.

The financial risks of participating in multi-employer plans are different from single employer defined benefit pension plans in the following respects:

- Assets contributed to the multi-employer plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer discontinues contributions to a plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If a participating employer chooses to stop participating in a plan, a withdrawal liability may be created based on the unfunded vested benefits for all employees in the plan.

Information regarding significant multi-employer pension benefit plans in which the Company participates is shown in the following table:

			Pension Protection Act Certified Zone Status	
Name of Plan	Plan Employer ID Number	Plan Number	2018	2017
Operating Engineers Local 324 Pension Fund	38-1900637	001	Red	Red

The Company contributed $1.0 million to the Operating Engineers Local 324 Pension Fund (the “Local 324 Plan”) in both 2018 and 2017. The Company also contributed $242,000 and $217,000 to other multi-employer plans in 2018 and 2017, respectively, which are excluded from the table above as they are not individually significant.

Based on information as of April 30, 2018 and 2017, the year end of the Local 324 Plan, the Company's contributions made to the Local 324 Plan represented less than 5% of total contributions received by the Local 324 Plan during the 2018 and 2017 plan years.

Table of Contents

The certified zone status in the table above is defined by the Department of Labor and the Pension Protection Act of 2006 and represents the level at which the plan is funded. Plans in the red zone are less than 65% funded; plans in the yellow zone are less than 80% funded; and plans in the green zone are at least 80% funded. The certified zone status is as of the Local 324 Plan's year end of April 30, 2018 and 2017.

A financial improvement or rehabilitation plan, as defined under ERISA, was adopted by the Local 324 Plan on March 17, 2011 and the Rehabilitation Period began May 1, 2013.

As of December 31, 2018, 143 employees were employed under union collective bargaining agreements with the Local 324 Operating Engineers union. Our three remaining collective bargaining agreements expire on November 30, 2020, April 30, 2022 and December 31, 2023.

NOTE 15. CLOSURE AND POST CLOSURE OBLIGATIONS

Our accrued closure and post-closure liability represents the expected future costs, including corrective actions, associated with closure and post-closure of our operating and non-operating disposal facilities. We record the fair value of our closure and post-closure obligations as a liability in the period in which the regulatory obligation to retire a specific asset is triggered. For our individual landfill cells, the required closure and post-closure obligations under the terms of our permits and our intended operation of the landfill cell are triggered and recorded when the cell is placed into service and waste is initially disposed in the landfill cell. The fair value is based on the total estimated costs to close the landfill cell and perform post-closure activities once the landfill cell has reached capacity and is no longer accepting waste. We perform periodic reviews of both non-operating and operating facilities and revise accruals for estimated closure and post-closure, remediation or other costs as necessary. Recorded liabilities are based on our best estimates of current costs and are updated periodically to include the effects of existing technology, presently enacted laws and regulations, inflation and other economic factors.

We do not presently bear significant financial responsibility for closure and/or post-closure care of the disposal facilities located on state-owned land at our Beatty, Nevada site; Provincial-owned land in Blainville, Québec; or state-leased federal land on the Department of Energy Hanford Reservation near Richland, Washington. The States of Nevada and Washington and the Province of Québec collect fees from us based on the waste received on a quarterly or annual basis. Such fees are deposited in dedicated, government-controlled funds to cover the future costs of closure and post-closure care and maintenance. Such fees are periodically reviewed for adequacy by the governmental authorities. We also maintain a surety bond for closure costs associated with the Stablex 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, 2018 we had $715,000 in commercial surety bonds dedicated for closure obligations.

In accounting for closure and post-closure obligations, which represent our asset retirement obligations, we recognize a liability as part of the fair value of future asset retirement obligations and an associated asset as part of the carrying amount of the underlying asset. This obligation is valued based on our best estimates of current costs and current estimated closure and post-closure costs taking into account current technology, material and service costs, laws and regulations. These cost estimates are increased by an estimated inflation rate, estimated to be 2.6% at December 31, 2018. Inflated current costs are then discounted using our credit adjusted risk free interest rate, which approximates our incremental borrowing rate, in effect at the time the obligation is established or when there are upward revisions to our estimated closure and post closure costs. Our weighted average credit adjusted risk free interest rate at December 31, 2018 approximated 6.0%.

Table of Contents

Changes to reported closure and post closure obligations for the years ended December 31, 2018 and 2017, were as follows:

$s in thousands	2018	2017
Closure and post-closure obligations, beginning of period	$ 76,088	$ 75,082
Accretion expense	3,707	3,026
Payments	(1,388)	(1,794)
Adjustments	99	(352)
Foreign currency translation	(143)	126
Closure and post-closure obligations, end of period	78,363	76,088
Less current portion	(2,266)	(2,330)
Long-term portion	$ 76,097	$ 73,758

Adjustment to the obligations represents changes in the expected timing or amount of cash expenditures based upon actual and estimated cash expenditures. The adjustments in 2018 were primarily attributable to a $1.1 million decrease in closure and post-closure obligations at our Grand View, Idaho operating facility due to a change in closure timing, partially offset by a $511,000 increase to the obligation for the acquired deep-well at our Winnie facility and a $472,000 increase to the obligation at our Belleville, Michigan operating facility due to changes in both estimated closure costs and closure timing. The adjustments in 2017 were primarily attributable to an $897,000 decrease in closure and post-closure obligations at our Grand View, Idaho operating facility due to a change in closure timing, partially offset by a $545,000 increase to the obligation for our Blainville, Québec, Canada operating facility associated with a newly-constructed disposal cell.

Changes in the reported closure and post closure asset, recorded as a component of Property and equipment, net, in the consolidated balance sheets, for the years ended December 31, 2018 and 2017 were as follows:

$s in thousands	2018	2017
Net closure and post-closure asset, beginning of year	$ 20,495	$ 22,408
Additions or adjustments to closure and post-closure asset	99	(352)
Amortization of closure and post-closure asset	(805)	(1,757)
Foreign currency translation	(279)	196
Net closure and post-closure asset, end of year	$ 19,510	$ 20,495

NOTE 16. DEBT

Long-term debt consisted of the following:

	December 31,	
$s in thousands	2018	2017

Revolving credit facility	$ 364,000	$ 277,000
Long-term debt	$ 364,000	$ 277,000

Table of Contents

Future maturities of long-term debt, excluding unamortized discount and debt issuance costs, as of December 31, 2018 consist of the following:

$s in thousands	Maturities
2019	$ —
2020	—
2021	—
2022	364,000
2023	—
Thereafter	—
	$ 364,000

2017 Credit Agreement

On April 18, 2017, the Company entered into a new senior secured credit agreement (the “2017 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 2017 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. In connection with the Company’s entry into the 2017 Credit Agreement, the Company terminated its existing credit agreement with Wells Fargo, dated June 17, 2014 (the “2014 Credit Agreement”). Immediately prior to the termination of the 2014 Credit Agreement, there were $278.3 million of term loans and no revolving loans outstanding under the 2014 Credit Agreement. No early termination penalties were incurred as a result of the termination of the 2014 Credit Agreement. The Company wrote off certain unamortized deferred financing costs and original issue discount associated with the 2014 Credit Agreement that were to be amortized to interest expense in future periods through a one-time non-cash charge of $5.5 million to interest expense in the second quarter of 2017.

The Revolving Credit Facility provides up to $500.0 million of revolving credit loans or letters of credit with the use of proceeds restricted solely for working capital and other general corporate purposes (including acquisitions and capital expenditures). Under the Revolving Credit Facility, revolving credit loans are available based on a base rate (as defined in the 2017 Credit Agreement) or LIBOR, at the Company’s option, plus an applicable margin which is determined according to a pricing grid under which the interest rate decreases or increases based on our ratio of funded debt to consolidated earnings before interest, taxes, depreciation and amortization (as defined in the 2017 Credit Agreement), as set forth in the table below:

Total Net Leverage Ratio	LIBOR Rate Loans Interest Margin	Base Rate Loans Interest Margin
Equal to or greater than 3.25 to 1.00	2.00%	1.00%

Equal to or greater than 2.50 to 1.00, but less than 3.25 to 1.00	1.75%	0.75%
Equal to or greater than 1.75 to 1.00, but less than 2.50 to 1.00	1.50%	0.50%
Equal to or greater than 1.00 to 1.00, but less than 1.75 to 1.00	1.25%	0.25%
Less than 1.00 to 1.00	1.00%	0.00%

At December 31, 2018, the effective interest rate on the Revolving Credit Facility, after giving effect to the impact of our interest rate swap, was 3.53%. Interest only payments are due either quarterly or on the last day of any interest period, as applicable.

In October 2014, the Company entered into an interest rate swap agreement, effectively fixing the interest rate on $170.0 million, or 47%, of the Revolving Credit Facility borrowings as of December 31, 2018. The interest rate swap agreement continued in place following the termination of the 2014 Credit Agreement. The critical terms of the interest rate swap and the forecasted transaction (periodic interest payments on the Company's variable-rate debt) did not change as a result of the refinancing therefore the interest rate swap continues to qualify as a highly-effective cash flow hedge, with gains and losses deferred in accumulated other comprehensive income to be recognized as an adjustment to interest expense in the same period that the hedged interest payments affect earnings.

The Company is required to pay a commitment fee ranging from 0.175% to 0.35% on the average daily unused portion of the Revolving Credit Facility, with such commitment fee to be reduced based upon the Company's total net leverage ratio (as defined in the 2017 Credit Agreement). The maximum letter of credit capacity under the Revolving Credit Facility is $75.0 million and the 2017 Credit Agreement provides for a letter of credit fee equal to the applicable margin for LIBOR loans under the Revolving Credit Facility. At December 31, 2018, there were $364.0 million of revolving credit loans outstanding on 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 2017 Credit Agreement) by us, and (c) the date of termination of the revolving credit commitment and are presented as long-term debt in the consolidated balance sheets.

The Company has entered into a sweep arrangement whereby day-to-day cash requirements in excess of available cash balances are advanced to the Company on an as-needed basis with repayments of these advances automatically made from subsequent deposits to our cash operating accounts (the "Sweep Arrangement"). Total advances outstanding under the Sweep Arrangement are subject to the $25.0 million swingline loan sublimit under the Revolving Credit Facility. The Company's revolving credit loans outstanding under the Revolving Credit Facility are not subject to repayment through the Sweep Arrangement. As of December 31, 2018, there were no amounts outstanding subject to the Sweep Arrangement.

As of December 31, 2018, the availability under the Revolving Credit Facility was $130.3 million with $5.7 million of the Revolving Credit Facility issued in the form of standby letters of credit utilized as collateral for closure and post-closure financial assurance and other assurance obligations.

The Company may at any time and from time to time prepay revolving credit loans and swingline loans, in whole or in part, without premium or penalty, subject to the obligation to indemnify each of the lenders against any actual loss or expense (including any loss or expense arising from the liquidation or reemployment of funds obtained by it to maintain a LIBOR rate loan (as defined in the 2017 Credit Agreement) or from fees payable to terminate the deposits from which such funds were obtained) with respect to the early termination of any LIBOR rate loan. The 2017 Credit Agreement provides for mandatory prepayment at any time if the revolving credit outstanding exceeds the revolving credit commitment (as such terms are defined in the 2017 Credit Agreement), in an amount equal to such excess. Subject to certain exceptions, the 2017 Credit Agreement provides for mandatory prepayment upon certain asset dispositions, casualty events and issuances of indebtedness.

Pursuant to (i) an unconditional guarantee agreement and (ii) a collateral agreement, each entered into by the Company and its domestic subsidiaries on April 18, 2017, the Company's obligations under the 2017 Credit

Agreement are (or will be) jointly and severally and fully and unconditionally guaranteed on a senior basis by all of the Company's existing and certain future domestic subsidiaries and are secured by substantially all of the assets of the Company and the Company's existing and certain future domestic subsidiaries (subject to certain exclusions), including 100% of the equity interests of the Company's domestic subsidiaries and 65% of the voting equity interests of the Company's directly owned foreign subsidiaries (and 100% of the non-voting equity interests of the Company's directly owned foreign subsidiaries).

The 2017 Credit Agreement contains customary restrictive covenants, subject to certain permitted amounts and exceptions, including covenants limiting the ability of the Company to incur additional indebtedness, pay dividends and make other restricted payments, repurchase shares of our outstanding stock and create certain liens. Upon the occurrence of an event of default (as defined in the 2017 Credit Agreement), among other things, amounts outstanding under the 2017 Credit Agreement may be accelerated and the commitments may be terminated.

The 2017 Credit Agreement also contains financial maintenance covenants, a maximum consolidated total net leverage ratio and a consolidated interest coverage ratio (as such terms are defined in the 2017 Credit Agreement). Our consolidated total net leverage ratio as of the last day of any fiscal quarter, commencing with the fiscal quarter ending June 30, 2017, may not exceed 3.50 to 1.00, subject to certain exceptions. Our consolidated interest coverage ratio as of the last day of any fiscal quarter, commencing with the fiscal quarter ending June 30, 2017, may not be less than 3.00 to 1.00.

Table of Contents

At December 31, 2018, we were in compliance with all of the financial covenants in the 2017 Credit Agreement.

2014 Credit Agreement

On June 17, 2014, the Company entered into a $540.0 million senior secured credit agreement with a syndicate of banks comprised of a $415.0 million term loan (the “Former Term Loan”) with a maturity date of June 17, 2021 and a $125.0 million revolving line of credit (the “Former Revolving Credit Facility”) with a maturity date of June 17, 2019.

The Former Term Loan provided an initial commitment amount of $415.0 million and bore interest at a base rate (as defined in the 2014 Credit Agreement) plus 2.00% or LIBOR plus 3.00%, at the Company’s option.

The Former Revolving Credit Facility provided up to $125.0 million of revolving credit loans or letters of credit with the use of proceeds restricted solely for working capital and other general corporate purposes. Under the Former Revolving Credit Facility, revolving loans were available based on a base rate (as defined in the 2014 Credit Agreement) or LIBOR, at the Company’s option, plus an applicable margin which was determined according to a pricing grid under which the interest rate decreased or increased based on our ratio of funded debt to consolidated earnings before interest, taxes, depreciation and amortization (as defined in the 2014 Credit Agreement). The maximum letter of credit capacity under the Former Revolving Credit Facility was $50.0 million and the 2014 Credit Agreement provided for a letter of credit fee equal to the applicable margin for LIBOR loans under the Former Revolving Credit Facility.

NOTE 17. INCOME TAXES

The domestic and foreign components of income (loss) before income taxes consisted of the following:

$s in thousands	2018	2017	2016
Domestic	$ 46,147	$ 26,051	$ 47,859
Foreign	18,711	16,919	7,442
Income before income taxes	$ 64,858	$ 42,970	$ 55,301

The components of the income tax expense (benefit) consisted of the following:

$s in thousands	2018	2017	2016
Current:			
U.S. Federal	$ 2,239	$ 11,157	$ 17,866
State	2,368	2,482	3,324

Foreign	4,746	5,398	2,459
Total current	9,353	19,037	23,649
Deferred:			
U.S. Federal	5,675	(27,029)	(1,790)
State	172	2,323	(275)
Foreign	63	(726)	(535)
Total deferred	5,910	(25,432)	(2,600)
Income tax (benefit) expense	$ 15,263	$ (6,395)	$ 21,049

On December 22, 2017, the Tax Act was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S. international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. In accordance with the Tax Act, we recorded $23.8 million as additional income tax benefit in the fourth quarter of 2017, the period in which the legislation was enacted. The total benefit included $25.2 million related to the re-measurement of certain deferred tax assets and liabilities partially offset by $1.4 million of expense related to one-time transition tax on the mandatory deemed repatriation of foreign earnings. Additionally, Staff Accounting Bulletin No. 118 (“SAB 118”) was issued to address the application of U.S. GAAP in situations when a registrant does not have the

Table of Contents

necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Act. December 22, 2018 marked the end of the measurement period for purposes of SAB 118. As such, we have completed our analysis based on legislative updates relating to the Tax Act currently available, which resulted in a net benefit for measurement period adjustments of $193,000 for the year ended December 31, 2018. The total tax provision benefit included a $2.2 million benefit related to the re-measurement of certain deferred tax assets and liabilities offset by $2.0 million of expense related to adjustments to the transition tax.

A reconciliation between the effective income tax rate and the applicable statutory federal and state income tax rate is as follows:

	2018		2017		2016	
Taxes computed at statutory rate	21.0	%	35.0	%	35.0	%
Impairment and loss on divestiture	0.5		4.4		—	
State income taxes (net of federal income tax benefit)	5.1		2.9		3.3	
Share-based compensation	(1.3)		—		—	
Research and development credits	(2.0)		—		—	
Non-deductible transaction costs	—		—		0.2	
Tax Cuts and Jobs Act of 2017	(0.3)		(55.4)		—	
Foreign rate differential	1.7		(2.9)		(1.1)	
Other	(1.2)		1.1		0.7	
	23.5	%	(14.9)	%	38.1	%

The components of the total net deferred tax assets and liabilities as of December 31, 2018 and 2017 consisted of the following:

$s in thousands	2018	2017
Deferred tax assets:		
Net operating loss, foreign tax credit and capital loss carry forwards	$ 5,165	$ 2,493
Accruals, allowances and other	5,041	3,603
Environmental compliance and other site related costs	8,580	8,549
Unrealized foreign exchange gains and losses	1,550	1,120
Unrealized gains and losses on interest rate hedge	—	134
Total deferred tax assets	20,336	15,899
Less: valuation allowance	(4,791)	(2,242)
Net deferred tax assets	15,545	13,657
Deferred tax liabilities:		
Property and equipment	(26,145)	(18,386)
Intangible assets	(51,081)	(51,575)
Unrealized gains and losses on interest rate hedge	(241)	—
Other	(1,284)	(1,279)
Total deferred tax liabilities	(78,751)	(71,240)
Net deferred tax liability	$ (63,206)	$ (57,583)

All deferred tax assets and liabilities are recorded in Deferred income taxes, net on the consolidated balance sheets as of December 31, 2018 and 2017. In evaluating its ability to realize the deferred tax assets, the Company considered all available positive and negative evidence, including its past operating results and the forecast of future market growth, forecasted earnings, future taxable income, and prudent and feasible tax planning strategies.

As of December 31, 2018, we have no federal NOLs available to offset future income, and have approximately $7.7 million in state and local NOLs for which we maintain a substantial valuation allowance. We have historically recorded a valuation allowance for certain deferred tax assets due to uncertainties regarding future operating results and limitations on utilization of state and local NOLs for tax purposes. State and local NOLs expire between 2019 and 2036. At December 31, 2018 and 2017, we maintained a valuation allowance of approximately $73,000 and $182,000, respectively, for state NOLs that are not expected to be utilizable prior to expiration.

As of December 31, 2018, we have foreign tax credit carry forwards of approximately $4.1 million that expire starting in 2024. As of December 31, 2018, we have capital loss carry forwards of approximately $2.2 million that expire in 2020. We believe it is more likely than not the foreign tax credit and capital loss carry forwards will not be utilized and therefore maintain a valuation allowance on the entire balance.

As of December 31, 2018, the Company has accumulated undistributed earnings generated by our foreign subsidiaries of approximately $35.8 million. Any additional taxes due with respect to such earnings or the excess of the amount for financial reporting over the tax basis of our foreign investments would generally be limited to foreign withholding taxes and state income taxes. We intend, however, to indefinitely reinvest these earnings and expect future U.S. cash generation to be sufficient to meet future U.S. cash needs.

Changes to unrecognized tax benefits for the years ended December 31, 2018 and 2017, were as follows:

$s in thousands	2018	2017	2016
Unrecognized tax benefits, beginning of year	$ —	$ —	$ —
Gross increases - tax positions in prior period	494	—	—
Gross increases - tax positions in current period	61	—	—
Unrecognized tax benefits, end of year	$ 555	$ —	$ —

We apply the provisions of ASC 740 related to income tax uncertainties which clarifies the accounting for income taxes by prescribing a minimum recognition threshold a tax position is require to meet before being recognized in the consolidated financial statements. The unrecognized tax benefits that are not expected to result in payment or receipt of cash within one year are classified as “Other long-term liabilities” in the Consolidated Balance Sheets. As of December 31, 2018, the total amount of gross unrecognized tax benefits was $555,000, of which $485,000, if recognized, would favorably impact the Company’s effective tax rate. There were no unrecognized tax benefits as of December 31, 2017 or December 31, 2016.

We recognize interest assessed by taxing authorities and accrued interest associated with uncertain tax positions as a component of interest expense. We recognize any penalties assessed by taxing authorities or penalties associated with uncertain tax positions as a component of selling, general and administrative expenses. Related to the unrecognized tax benefits noted above, as of December 31, 2018, we recognized a liability for interest of $15,000 and no penalties. There were no unrecognized tax benefits as of December 31, 2017 or December 31, 2016. Accordingly, no interest or penalties were accrued or recognized in these years.

Given the potential outcome of the current examinations as well as the impact of the current examinations on the potential expiration of the statute of limitations, it is reasonably possible that approximately $73,000 of unrecognized tax benefits could reverse within the next twelve months as a result of a lapse of the statute of limitations.

We file a consolidated U.S. federal income tax return with the IRS as well as tax returns in various states, Canada, and Mexico. The Company is subject to examination by the IRS for tax years 2014 through 2018. EQ is subject to examination by the IRS for pre-acquisition tax year 2014. The Company is currently under examination by the state of Idaho for years 2014 through 2017 and the state of Texas for the year 2014. We may be subject to examinations by various state and local taxing jurisdictions for tax years 2013 through 2018. The Company has no significant foreign jurisdiction audits underway. The tax years 2014 through 2018 remain subject to examination by foreign jurisdictions.

NOTE 18. COMMITMENTS AND CONTINGENCIES

Litigation and Regulatory 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 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.

On November 17, 2018, an explosion occurred at our Grand View, Idaho facility, resulting in one employee fatality and injuries to other employees. The incident severely damaged the facility's primary waste-treatment building as well as surrounding waste handling, waste storage, maintenance and administrative support structures, resulting in the closure of the entire facility that remained in effect through January 2019. We resumed limited operations at our Grand View, Idaho facility in February 2019. In addition to initiating and conducting our own investigation into the incident, we are fully cooperating with IDEQ, the USEPA and the Occupational Safety and Health Administration's ("OSHA") to support their comprehensive and independent investigations of the incident. As we continue to investigate the cause of the incident, we are evaluating its impact, but, at this time, we are unable to predict the timing and outcome of the investigation. As such, we cannot presently estimate the potential liability, if any, related to the incident therefore no amounts related to such claims have been recorded in our financial statements as of December 31, 2018. We have not been named as a defendant in any action relating to the incident. We maintain workers' compensation insurance, business interruption insurance and liability insurance for personal injury, property and casualty damage. We believe that any potential third-party claims associated with the explosion, in excess of our deductibles, are expected to be resolved primarily through our insurance policies. Although we carry business interruption insurance, a disruption of our business caused by a casualty event, including the full and partial closure of our Grand View, Idaho facility, may result in the loss of business, profits or customers during the time of such closure. Accordingly, our insurance policies may not fully compensate us for these losses.

Other than as described above, 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.

Operating Leases

Lease agreements primarily cover railcars, the disposal site at our Stablex facility and corporate office space. Future minimum lease payments on non-cancellable operating leases as of December 31, 2018 are as follows:

$s in thousands	Payments
2019	$ 5,638
2020	3,644
2021	3,184
2022	1,885
2023	1,457
Thereafter	5,065
	$ 20,873

Rental expense under operating leases was $7.4 million, $7.6 million and $7.8 million for the years ended December 31, 2018, 2017 and 2016, respectively.

NOTE 19. EQUITY

Stock Repurchase Program

On June 1, 2016, the Company's Board of Directors authorized the repurchase of $25.0 million of the Company's outstanding common stock. Repurchases may be made from time to time in the open market or through privately negotiated transactions. The timing of any repurchases will be based upon prevailing market conditions and other factors. The Company did not repurchase any shares of common stock under the repurchase program during 2018. On May 29, 2018, the repurchase program was extended and will remain in effect until June 6, 2020, unless further extended by our Board of Directors.

Table of Contents

Omnibus Incentive Plan

On May 27, 2015, our stockholders approved the Omnibus Incentive Plan ("Omnibus Plan"), which was approved by our Board of Directors on April 7, 2015. The Omnibus Plan was developed to provide additional incentives through equity ownership in US Ecology and, as a result, encourage employees and directors to contribute to our success. The Omnibus Plan provides, among other things, the ability for the Company to grant restricted stock, performance stock, options, stock appreciation rights, restricted stock units, performance stock units and other share-based awards or cash awards to officers, employees, consultants and non-employee directors. Subsequent to the approval of the Omnibus Plan in May 2015, we stopped granting equity awards under our 2008 Stock Option Incentive Plan and our 2006 Restricted Stock Plan ("Previous Plans"), and the Previous Plans will remain in effect solely for the settlement of awards granted under the Previous Plans. No shares that are reserved but unissued under the Previous Plans or that are outstanding under the Previous Plans and reacquired by the Company for any reason will be available for issuance under the Omnibus Plan. The Omnibus Plan expires on April 7, 2025 and authorizes 1,500,000 shares of common stock for grant over the life of the Omnibus Plan. As of December 31, 2018, 1,012,001 shares of common stock remain available for grant under the Omnibus Plan.

Performance Stock Units (PSUs)

We have PSU awards outstanding under the Omnibus Plan. Each PSU represents the right to receive, on the settlement date, one share of the Company's common stock. The total number of PSUs each participant is eligible to earn ranges from 0% to 200% of the target number of PSUs granted. The actual number of PSUs that will vest and be settled in shares is determined based on total stockholder return relative to a set of peer companies, over a three-year performance period. Compensation expense is recorded over the awards' three-year vesting period.

A summary of our PSU activity is as follows:

	Units	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2017	30,963	$ 53.76
Granted	14,100	63.56
Vested	(5,863)	65.78
Cancelled, expired or forfeited	—	—
Outstanding as of December 31, 2018	39,200	$ 55.48

The fair value of PSUs is estimated as of the date of grant using a Monte Carlo simulation model. The grant date fair value of PSUs granted during 2018, 2017 and 2016 was $63.56, $62.45 and $41.22 per unit, respectively. Assumptions used in the Monte Carlo simulation to calculate the fair value of the PSUs granted are as follows:

	2018		2017		2016	
Stock price on grant date	$ 51.00		$ 49.15		$ 35.05	
Expected term	3.0	years	3.0	years	3.0	years
Expected volatility	30	%	31	%	29	%
Risk-free interest rate	2.0	%	1.5	%	1.3	%
Expected dividend yield	1.4	%	1.5	%	2.1	%

During 2018, 5,863 PSUs vested and PSU holders earned 5,996 shares of the Company's common stock.

Stock Options

We have stock option awards outstanding under the 2008 Stock Option Incentive Plan ("2008 Stock Option Plan") and the Omnibus Plan. Subsequent to the approval of the Omnibus Plan in May 2015, we stopped granting equity awards under the 2008 Stock Option Plan. The 2008 Stock Option Plan will remain in effect solely for the settlement of awards previously granted. Stock options expire ten years from the date of grant and vest over a period ranging from three to five years from the date of grant. Vesting requirements for non-employee directors are contingent on attending a minimum of

Table of Contents

75% of regularly scheduled board meetings during the year. Upon the exercise of stock options, common stock is issued from treasury stock or, when depleted, from new stock issuances.

A summary of our stock option activity is as follows:

	Shares	Weighted Average Exercise Price	Aggregate Intrinsic Value	Weighted Average Remaining Contractual Term (Years)
Outstanding as of December 31, 2017	429,729	$ 38.58		
Granted	40,900	51.00		
Exercised	(228,120)	34.12		
Cancelled, expired or forfeited	(6,006)	42.94		
Outstanding as of December 31, 2018	236,503	$ 44.93	$ 4,269	7.1
Exercisable as of December 31, 2018	127,851	$ 44.47	$ 2,367	6.3

The weighted average grant date fair value of all stock options granted during 2018, 2017 and 2016 was $11.64, $10.92 and $8.19 per share, respectively. The total intrinsic value of stock options exercised during 2018, 2017 and 2016 was $6.6 million, $1.0 million and $307,000, respectively. During 2018, option holders tendered 84,901 options in connection with options exercised via net share settlement.

The fair value of each stock option is estimated as of the date of grant using the Black Scholes option pricing model. Expected volatility is estimated based on an average of actual historical volatility and implied volatility corresponding to the stock option's estimated expected term. We believe this approach to determine volatility is representative of future stock volatility. The expected term of a stock option is estimated based on analysis of stock options already exercised and foreseeable trends or changes in behavior. The risk free interest rates are based on the U.S. Treasury securities maturities as of each applicable grant date. The dividend yield is based on analysis of actual historical dividend yield.

The significant weighted average assumptions relating to the valuation of each option grant are as follows:

	2018		2017		2016	
Expected life	3.8	years	3.8	years	3.8	years
Expected volatility	30	%	31	%	31	%
Risk-free interest rate	2.0	%	1.5	%	1.1	%
Expected dividend yield	1.5	%	1.7	%	1.7	%

Restricted Stock

We have restricted stock awards outstanding under the Omnibus Plan. Generally, restricted stock awards vest annually over a three-year period. Vesting of restricted stock awards to non-employee directors is contingent on the non-employee director attending a minimum of 75% of regularly scheduled board meetings and 75% of the meetings of each committee of which the non employee director is a member during the year. Upon the vesting of restricted stock awards, common stock is issued from treasury stock or, when depleted, from new stock issuances.

98

Table of Contents

A summary of our restricted stock activity is as follows:

	Shares	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2017	66,701	$ 44.83
Granted	32,700	53.24
Vested	(24,297)	50.23
Cancelled, expired or forfeited	(116)	49.97
Outstanding as of December 31, 2018	74,988	$ 46.74

The total fair value of restricted stock vested during 2018, 2017 and 2016 was $2.2 million, $868,000 and $1.4 million, respectively.

Restricted Stock Units

We have restricted stock unit awards outstanding under the Omnibus Plan. Each restricted stock unit represents the right to receive, on the settlement date, one share of the Company’s common stock. Generally, restricted stock unit awards vest annually over a three-year period. Upon the vesting of restricted stock unit awards, common stock is issued from treasury stock or, when depleted, from new stock issuances.

A summary of our restricted stock unit activity is as follows:

	Units	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2017	47,151	$ 45.56
Granted	39,674	59.19
Vested	(17,732)	44.90
Cancelled, expired or forfeited	(2,308)	47.30
Outstanding as of December 31, 2018	66,785	$ 53.77

The total fair value of restricted stock units vested during 2018 and 2017 was $967,000 and $314,000, respectively. No restricted stock units vested in 2016.

Treasury Stock

During 2018, the Company issued 400 shares of restricted stock, under the Omnibus Plan, from our treasury stock at an average cost of $26.43 per share and repurchased 5,564 shares of the Company's common stock in connection with the net share settlement of employee equity awards at an average cost of $56.20 per share.

Share Based Compensation Expense

All share based compensation is measured at the grant date based on the fair value of the award, and is recognized as an expense in earnings over the requisite service period. The components of pre tax share based compensation expense

99

Table of Contents

(primarily included in Selling, general and administrative expenses in our consolidated statements of operations) and related tax benefits were as follows:

$s in thousands	2018	2017	2016
Share-based compensation from:			
Stock options	$ 727	$ 1,141	$ 1,123
Restricted stock	1,590	1,505	1,272
Restricted stock units	1,324	716	216
Performance stock units	725	571	314
Total share-based compensation	4,366	3,933	2,925
Income tax benefit	(1,027)	(1,403)	(1,113)
Share-based compensation, net of tax	$ 3,339	$ 2,530	$ 1,812

The tax benefits from stock options exercised during 2018, 2017 and 2016 were $1.4 million, $129,000 and $83,000, respectively.

Unrecognized Share Based Compensation Expense

As of December 31, 2018, there was $5.5 million of unrecognized compensation expense related to unvested share based awards granted under our share based award plans. The expense is expected to be recognized over a weighted average remaining vesting period of approximately two years.

NOTE 20. EARNINGS PER SHARE

	2018		2017		2016	
$s and shares in thousands, except per share amounts	Basic	Diluted	Basic	Diluted	Basic	D
Net income	$ 49,595	$ 49,595	$ 49,365	$ 49,365	$ 34,252	$
Weighted average basic shares outstanding	21,888	21,888	21,758	21,758	21,704	
Dilutive effect of share-based awards		159		144		
Weighted average diluted shares outstanding		22,047		21,902		
Earnings per share	$ 2.27	$ 2.25	$ 2.27	$ 2.25	$ 1.58	$
Anti-dilutive shares excluded from calculation		46		103		

NOTE 21. SEGMENT REPORTING

Financial Information by Segment

Our operations are managed in two reportable segments reflecting our internal 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, non hazardous and radioactive waste at Company owned landfill, wastewater, deep-well injection 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 field services such as industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, emergency response and other services to commercial and industrial facilities and to government entities.

Table of Contents

The operations not managed through our two reportable segments are recorded as "Corporate." Corporate selling, general and administrative expenses include typical corporate items such as legal, accounting and other items of a general corporate nature. Income taxes are assigned to Corporate, but all other items are included in the segment where they originated. Inter-company transactions have been eliminated from the segment information and are not significant between segments.

Summarized financial information of our reportable segments for the years ended December 31, 2018, 2017 and 2016 is as follows:

	2018			
$s in thousands	Environmental Services	Field & Industrial Services	Corporate	Total
Revenue	$ 400,678	$ 165,250	$ —	$ 565,928
Depreciation, amortization and accretion	$ 35,195	$ 6,304	$ 1,060	$ 42,559
Capital expenditures	$ 31,735	$ 7,430	$ 1,592	$ 40,757
Total assets	$ 701,267	$ 169,066	$ 77,565	$ 947,898

	2017			
$s in thousands	Environmental Services	Field & Industrial Services	Corporate	Total
Revenue	$ 366,308	$ 137,734	$ —	$ 504,042
Depreciation, amortization and accretion	$ 35,137	$ 5,578	$ 501	$ 41,216
Capital expenditures	$ 28,783	$ 4,206	$ 3,251	$ 36,240
Total assets	$ 609,174	$ 125,110	$ 67,792	$ 802,076

	2016			
$s in thousands	Environmental Services	Field & Industrial Services	Corporate	Total
Revenue	$ 337,771	$ 139,894	$ —	$ 477,665
Depreciation, amortization and accretion	$ 33,839	$ 5,481	$ 512	$ 39,832
Capital expenditures	$ 30,098	$ 2,572	$ 3,026	$ 35,696
Total assets	$ 599,300	$ 119,198	$ 57,902	$ 776,400

Management uses Adjusted EBITDA as a financial measure to assess segment performance. Adjusted EBITDA is defined as net income before interest expense, interest income, income tax expense, depreciation, amortization, share-based compensation, accretion of closure and post closure liabilities, foreign currency gain/loss, non cash impairment charges, gain/loss on divestiture and other income/expense. Adjusted EBITDA is a complement to results provided in accordance with GAAP and we believe that such information provides additional useful information to analysts, stockholders and other users to understand the Company’s operating performance. Since Adjusted EBITDA is not a measurement determined in accordance with GAAP and is thus susceptible to varying calculations, Adjusted

EBITDA as presented may not be comparable to other similarly titled measures of other companies. Items excluded from Adjusted EBITDA are significant components in understanding and assessing our financial performance. Adjusted EBITDA should not be considered in isolation or as an alternative to, or substitute for, net income, cash flows generated by operations, investing or financing activities, or other financial statement data presented in the consolidated financial statements as indicators of financial performance or liquidity. Adjusted EBITDA has limitations as an analytical tool and should not be considered in isolation or a substitute for analyzing our results as reported under GAAP. Some of the limitations are:

- Adjusted EBITDA does not reflect changes in, or cash requirements for, our working capital needs;
- Adjusted EBITDA does not reflect our interest expense, or the requirements necessary to service interest or principal payments on our debt;
- Adjusted EBITDA does not reflect our income tax expenses or the cash requirements to pay our taxes;

Table of Contents

- Adjusted EBITDA does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments; and
- Although depreciation and amortization charges are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements.

A reconciliation of Net income to Adjusted EBITDA for the years ended December 31, 2018, 2017 and 2016 is as follows:

$s in thousands	2018	2017	2016
Net income	$ 49,595	$ 49,365	$ 34,252
Income tax (benefit) expense	15,263	(6,395)	21,049
Interest expense	12,130	18,157	17,317
Interest income	(215)	(62)	(96)
Foreign currency (gain) loss	(55)	(516)	138
Gain on divestiture	—	—	(2,034)
Other income	(2,630)	(791)	(597)
Impairment charges	3,666	8,903	—
Depreciation and amortization of plant and equipment	29,207	28,302	25,304
Amortization of intangibles	9,645	9,888	10,575
Share-based compensation	4,366	3,933	2,925
Accretion and non-cash adjustment of closure & post-closure liabilities	3,707	3,026	3,953
Adjusted EBITDA	$ 124,679	$ 113,810	$ 112,786

Adjusted EBITDA, by operating segment, for the years ended December 31, 2018, 2017 and 2016 is as follows:

$s in thousands	2018	2017	2016
Adjusted EBITDA:			
Environmental Services	$ 160,526	$ 146,371	$ 139,698
Field & Industrial Services	18,456	14,709	16,342
Corporate	(54,303)	(47,270)	(43,254)
Total	$ 124,679	$ 113,810	$ 112,786

Property and Equipment and Intangible Assets Outside of the United States

We provide services in the United States and Canada. Long lived assets, comprised of property and equipment and intangible assets net of accumulated depreciation and amortization, by geographic location as of December 31, 2018 and 2017 are as follows:

$s in thousands	2018	2017
United States	$ 480,322	$ 396,066
Canada	57,787	61,178
Total long-lived assets	$ 538,109	$ 457,244

Table of Contents

NOTE 22. QUARTERLY FINANCIAL DATA (unaudited)

The unaudited consolidated quarterly results of operations for 2018 and 2017 were as follows:

	Three-Months Ended				
$s and shares in thousands, except per share amounts	Mar. 31,	June 30,	Sept. 30,	Dec. 31,	Year
2018					
Revenue	$ 120,059	$ 136,912	$ 151,416	$ 157,541	$ 565,928
Gross profit	35,671	41,448	47,300	45,675	170,094
Operating income	13,439	20,292	19,985	20,372	74,088
Net income	9,243	13,220	13,427	13,705	49,595
Earnings per share—diluted (1)	$ 0.42	$ 0.60	$ 0.61	$ 0.62	$ 2.25
Weighted average common shares outstanding used in the diluted earnings per share calculation	21,957	22,024	22,099	22,109	22,047
Dividends paid per share	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.72
2017					
Revenue	$ 110,234	$ 126,057	$ 134,054	$ 133,697	$ 504,042
Gross profit	31,873	35,896	37,733	47,625	153,127
Operating income	12,159	15,896	15,289	16,414	59,758
Net income	5,185	5,049	8,365	30,766	49,365
Earnings per share—diluted (1)	$ 0.24	$ 0.23	$ 0.38	$ 1.40	$ 2.25
Weighted average common shares outstanding used in the diluted earnings per share calculation	21,845	21,890	21,931	21,927	21,902
Dividends paid per share	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.72

(1) Diluted earnings per common share for each quarter presented above are based on the respective weighted average number of common shares for the respective quarter. The dilutive potential common shares outstanding for each period and the sum of the quarters may not necessarily be equal to the full year diluted earnings per common share amount.

NOTE 23. SUBSEQUENT EVENT

On January 2, 2019, the Company declared a dividend of $0.18 per common share for stockholders of record on January 18, 2019. The dividend was paid from cash on hand on January 25, 2019 in an aggregate amount of $4.0 million.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None

ITEM 9A. CONTROLS AND PROCEDURES

An evaluation was performed under the supervision and with the participation of the Company’s management, including both the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the Company’s disclosure controls and procedures, as such term is defined under Rule 13a 15e under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) as of December 31, 2018. Based on that evaluation, the Company’s management, including the Chief Executive and Chief Financial Officer, concluded that the Company’s disclosure controls and procedures are effective to provide reasonable assurance that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported as specified in SEC rules and forms and that such information is accumulated and communicated to the Company’s management, including the Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

Table of Contents

There were no changes in the Company's internal control over financial reporting identified in connection with the evaluation of such controls that occurred during the Company's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Annual Report on Internal Controls over Financial Reporting.

Management is responsible for and maintains a system of internal controls over financial reporting that is designed to provide reasonable assurance that its records and filings accurately reflect the transactions engaged in Section 404 of Sarbanes Oxley Act of 2002 and related rules issued by the SEC requiring management to issue a report on its internal controls over financial reporting.

There are inherent limitations in the effectiveness of any internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective internal control can provide only reasonable assurance with respect to financial statement preparation. Further, because of changes in conditions, the effectiveness of internal controls may vary over time.

Management has conducted an assessment of its internal controls over financial reporting as of December 31, 2018 based on criteria established in Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations ("COSO") of the Treadway Commission. Based on this assessment, management concluded that our internal controls over financial reporting, excluding ES&H of Dallas, LLC ("ES&H Dallas") and Ecoserv Industrial Disposal, LLC ("Winnie"), were effective to provide reasonable assurance regarding the reliability of financial reporting.

SEC guidance permits management to omit an assessment of an acquired business' internal control over financial reporting from management's assessment of internal control over financial reporting for a period not to exceed one year from the date of acquisition. Accordingly, we have assessed neither ES&H Dallas' nor Winnie's internal control over financial reporting as of December 31, 2018. ES&H Dallas' and Winnie's combined financial statements constitute approximately 3% of total assets (excluding goodwill and intangible assets), 2% of revenues, and 3% of net income of the consolidated financial statements of the Company as of and for the year ended December 31, 2018.

Our independent registered public accounting firm, Deloitte and Touche LLP, has audited the effectiveness of internal control over financial reporting as of December 31, 2018, as stated in their report, which is included in Part II, Item 8 of this Annual Report on Form 10 K.

ITEM 9B. OTHER INFORMATION

None

Table of Contents

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information regarding directors and nominees for directors of the Company, including identification of the members of the audit committee and audit committee financial expert, is presented under the headings “Corporate Governance—Committees of the Board of Directors,” and “Election of Directors—Nominees For Directors” in the Company’s definitive proxy statement for use in connection with the 2019 Annual Meeting of Stockholders (the “Proxy Statement”) to be filed within 120 days after the end of the Company’s fiscal year ended December 31, 2018. The information contained under these headings is incorporated herein by reference. Information regarding the executive officers of the Company is included in this Annual Report on Form 10 K under Item 1 of Part I as permitted by Instruction 3 to Item 401(b) of Regulation S K.

We have adopted a code of ethics that applies to our Chief Executive Officer and Chief Financial Officer. This code of ethics is available on our Web site at www.usecology.com. If we make any amendments to this code other than technical, administrative or other non substantive amendments, or grant any waivers, including implicit waivers, from a provision of this code to our Chief Executive Officer or Chief Financial Officer, we will disclose the nature of the amendment or waiver, its effective date and to whom it applies in a report filed with the SEC.

ITEM 11. EXECUTIVE COMPENSATION

Information concerning executive and director compensation is presented under the heading “Compensation Discussion and Analysis” in the Proxy Statement. The information contained under these headings is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information with respect to security ownership of certain beneficial owners and management is set forth under the heading “Security Ownership of Certain Beneficial Owners and Directors and Officers” in the Proxy Statement. The information contained under these headings is incorporated herein by reference.

The following table provides information as of December 31, 2018, about the common stock that has been issued under all of our equity compensation plans, including the Omnibus Plan and the 2008 Stock Option Incentive Plan. All of these plans have been approved by our stockholders. The Omnibus Plan, approved in May 2015, superseded our Previous Plans, and the Previous Plans remain in effect solely for the settlement of awards granted under the Previous Plans. The number of securities remaining available for future issuance presented in column (c) in the table below represents securities available under the Omnibus Plan only. No shares that are reserved but unissued under the Previous Plans or that are outstanding under the Previous Plans and reacquired by the Company for any reason will be available for issuance under the Omnibus Plan.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))

	(a)(1)	(b)(2)	(c)
Equity compensation plans approved by security holders	417,476	$ 44.93	1,012,001
Equity compensation plans not approved by security holders	—	—	—
Total	417,476	$ 44.93	1,012,001

(1) Includes 141,773 shares of unvested restricted stock and restricted stock unit awards and 39,200 performance stock unit awards outstanding under the Omnibus Plan.

105

Table of Contents

(2) The weighted average exercise price does not take into account the shares issuable upon vesting of outstanding restricted stock and restricted stock unit awards, which have no exercise price.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information concerning related transactions is presented under the heading "Certain Relationships and Related Transactions" in the Proxy Statement. The information contained under this heading is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information concerning principal accounting fees and services is presented under the heading "Ratification of Appointment of Independent Registered Public Accounting Firm" in the Proxy Statement. The information contained under this heading is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENTS AND SCHEDULES

(a)The following documents are filed as part of this report:

1) Consolidated Financial Statements: See Index to Consolidated Financial Statements at Item 8 of this Annual Report.
2) Financial Statement Schedules. Schedules have been omitted because they are not required or because the information is included in the financial statements at Item 8 of this Annual Report.
3) Exhibits are incorporated herein by reference or are filed with this Annual Report as set forth in the Index to Exhibits on page 107 hereof.

ITEM 16. FORM 10 K SUMMARY

None

Table of Contents

Index to Exhibits

Exhibit No.	Description	Incorporated by Reference from Registrant's
3.1	Restated Certificate of Incorporation	2009 Form 10 K
3.3	Amended and Restated Bylaws	Form 8 K filed 12 11 2007
10.1	Sublease dated July 27, 2005, between the State of Washington and US Ecology Washington, Inc.	Form 8 K filed 7 27 2005
10.2	Lease Agreement as amended between American Ecology Corporation and the State of Nevada	2nd Qtr 2007 Form 10 Q filed 8 7 2007
10.3	*Amended and Restated American Ecology Corporation 1992 Employee Stock Option Plan	Proxy Statement dated 4 16 2003
10.4	*2006 Restricted Stock Plan	Proxy Statement dated 3 31 2006
10.5	*2008 Stock Option Incentive Plan	Proxy Statement dated 4 10 2008
10.6	*Omnibus Incentive Plan	Proxy Statement dated 4 15 2015
10.7	*Executive Employment Agreement, dated February 25, 2016, between Jeffrey R. Feeler and US Ecology, Inc.	2015 Form 10 K
10.8	Amended and Restated 2005 Non Employee Director Compensation Plan	2012 Form 10 K
10.9	*Employment Agreement, effective February 25, 2016, between the Company and Eric L. Gerratt	2015 Form 10 K
10.10	*Employment Agreement, effective February 25, 2016, between the Company and Steven D. Welling	2015 Form 10 K
10.11	*Employment Agreement, effective February 25, 2016, between the Company and Simon G. Bell	2015 Form 10 K
10.12	*Form of Indemnification Agreement between US Ecology, Inc. and each of the Company's Directors and Officers	Form 8 K filed 11 12 2014
10.13	*Employment Agreement, effective May 23, 2017, between the Company and Andrew Marshall	2nd Qtr 2017 Form 10-Q filed 7-31-17
10.14	Credit Agreement, dated April 18, 2017, by and among US Ecology, Inc., the lenders referred to therein, Wells Fargo Bank, National Association, as administrative agent, Bank of America, N.A., as issuing lender, Wells Fargo Securities, LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated, as joint lead arrangers and joint bookrunners, Bank of America, N.A., as syndication agent and Bank of Montreal, PNC Bank, National Association and US Bank National Association, as co-documentation agents	Form 8 K filed 4-20-2017
10.15	*US Ecology, Inc. 2015 Management Incentive Plan (Executive)	1st Qtr 2015 Form 10-Q filed 5-4-2015
10.16	*US Ecology, Inc. 2016 Management Incentive Plan (Executive)	2017 Form 10-K
10.17	*US Ecology, Inc. 2017 Management Incentive Plan (Executive)	2017 Form 10-K
10.18	*US Ecology, Inc. 2018 Management Incentive Plan (Executive)	1st Qtr 2018 Form 10-Q filed 5-7-2018
21	List of Subsidiaries	
23.1	Consent of Deloitte and Touche LLP	
31.1		

	Certifications of December 31, 2018 Form 10 K by Chief Executive Officer dated February 28, 2019
31.2	Certifications of December 31, 2018 Form 10 K by Chief Financial Officer dated February 28, 2019

107

Table of Contents

Exhibit No.	Description	Incorporated by Reference from Registrant's
32.1	Certifications of December 31, 2018 Form 10 K by Chief Executive Officer dated February 28, 2019	
32.2	Certifications of December 31, 2018 Form 10 K by Chief Financial Officer dated February 28, 2019	
101	The following materials from the Annual Report on Form 10 K of US Ecology, Inc. for the fiscal year ended December 31, 2018 formatted in Extensible Business Reporting Language (XBRL): (i) Consolidated Balance Sheets, (ii) Consolidated Statements of Operations, (iii) Consolidated Statements of Comprehensive Income, (iv) Consolidated Statements of Cash Flows, (v) Consolidated Statements of Stockholders' Equity, and (vi) Notes to the Consolidated Financial Statements	

*Identifies management contracts or compensatory plans or arrangements required to be filed as an exhibit hereto.

Table of Contents

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

US ECOLOGY, INC.

By: /s/ ERIC L. GERRATT
Eric L. Gerratt
Executive Vice President, Chief Financial Officer and Treasurer

Date: February 28, 2019

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated as of February 28, 2019.

/s/ JEFFREY R. FEELER Jeffrey R. Feeler (Director) President and Chief Executive Officer	/s/ ERIC L. GERRATT Eric L. Gerratt Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)
/s/ SIMON G. BELL Simon G. Bell Executive Vice President and Chief Operating Officer	/s/ STEVEN D. WELLING Steven D. Welling Executive Vice President of Sales and Marketing
/s/ ANDREW P. MARSHALL Andrew P. Marshall Executive Vice President of Regulatory Compliance & Safety	/s/ RONALD C. KEATING Ronald C. Keating (Director)
/s/ STEPHEN A. ROMANO Stephen A. Romano (Director)	/s/ JOE F. COLVIN Joe F. Colvin (Director)
/s/ DANIEL FOX Daniel Fox (Director)	/s/ KATINA DORTON Katina Dorton (Director)
/s/ JOHN T. SAHLBERG John Sahlberg (Director)	/s/ GLENN A. EISENBERG Glenn A. Eisenberg (Director)