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, 2019
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: 001-39120

US ECOLOGY, INC.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	**84-2421185** (I.R.S. Employer Identification No.)
101 S. Capitol Blvd., Suite 1000 **Boise, Idaho** (Address of principal executive offices)	**83702** (Zip Code)

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	ECOL	Nasdaq Global Select Market
Warrants to Purchase Common Stock	ECOLW	Nasdaq Capital Market

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 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, 2019 was approximately $1.30 billion based on the closing price of $59.54 per share as reported on the Nasdaq Global Select Market System.

At February 26, 2020, there were 31,516,432 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 June 3, 2020 to be filed within 120 days after the registrant's fiscal year ended December 31, 2019, portions of which are incorporated by reference into Part III of this Form 10-K.

US ECOLOGY, INC.

FORM 10-K

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PART I

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

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

Forward looking statements are only predictions and are not guarantees of performance. These statements are based on management's beliefs and assumptions, which in turn are based on currently available information. Important assumptions include, among others, those regarding demand for the Company's 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 may include the integration of the operations of NRC Group Holdings Corp. ("NRC"), the loss or failure to renew significant contracts, competition in our markets, adverse economic conditions, our compliance with applicable laws and regulations, potential liability in connection with providing oil spill response services and waste disposal services, the effect of existing or future laws and regulations related to greenhouse gases and climate change, the effect of our failure to comply with U.S. or foreign anti-bribery laws, the effect of compliance with laws and regulations, an accident at one of our facilities, incidents arising out of the handling of dangerous substances, our failure to maintain an acceptable safety record, 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, the effect of changes in the method of determining the London Interbank Offered Rate ("LIBOR") or the replacement thereto, risks associated with our international operations, the impact of changes to U.S. tariff and import and export regulations, fluctuations in commodity markets related to our business, a change in NRC's classification as an Oil Spill Removal Organization, cyber security threats, unanticipated changes in tax rules and regulations, the loss of key personnel, a deterioration in our labor relations or labor disputes, our reliance on third-party contractors to provide emergency response services, 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 access to cost-effective transportation services, lawsuits, our implementation of new technologies, fluctuations in foreign currency markets and foreign affairs, our integration of acquired businesses, our ability to pay dividends or repurchase stock, anti-takeover regulations, stock market volatility, the failure of the warrants to be in the money or their expiration worthless and risks related to our compliance with maritime regulations (including the Jones Act).

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.

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
USNRC	U.S. Nuclear Regulatory Commission
NPDES	National Pollutant Discharge Elimination System
NRC	NRC Group Holdings Corp.
OPA-90	The Oil Pollution Act of 1990
OSRO	Oil Spill Removal Organization
PCBs	Polychlorinated biphenyls
Predecessor US Ecology	US Ecology Holdings, Inc. (f/k/a US Ecology, Inc.), the predecessor to US Ecology
QEQA	Québec Environmental Quality Act
RCRA	Resource Conservation and Recovery Act of 1976
RRC	Railroad Commission of Texas
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
USCG	U.S. Coast Guard
USEPA	U.S. Environmental Protection Agency
WUTC	Washington Utilities and Transportation Commission

US Ecology is a leading provider of environmental services to commercial and governmental entities. The Company addresses the complex waste management and response needs of its customers, offering treatment, disposal and recycling of hazardous, non-hazardous and radioactive waste, leading emergency response and standby services, and a wide range of complementary field and industrial services. US Ecology's focus on safety, environmental compliance and best-in-class 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, 2019, we employed approximately 3,800 people.

Predecessor US Ecology was incorporated as a Delaware corporation in March 1987 as American Ecology Corporation. On February 22, 2010, Predecessor US Ecology changed its name from American Ecology Corporation to US Ecology, Inc. On November 1, 2019, in connection with the Company's acquisition of NRC (the "NRC Merger") pursuant to that certain Agreement and Plan of Merger, dated June 23, 2019 (the "Merger Agreement"), by and among the Company,

NRC, Predecessor US Ecology, Rooster Merger Sub, Inc. and ECOL Merger Sub, Inc., a new parent entity of US Ecology completed a merger transaction with Predecessor US Ecology, became the successor to Predecessor US Ecology and changed its name to "US Ecology, Inc." In connection with the closing of the NRC Merger, Predecessor US Ecology changed its name to "US Ecology Holdings, Inc.," and remains a wholly-owned subsidiary of US Ecology. 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 a network of fixed facilities and service centers operating primarily in the United States, Canada, the United Kingdom and Mexico. Our fixed facilities include five RCRA subtitle C hazardous waste landfills, three landfills serving waste streams regulated by the RRC and one LLRW landfill. We also have various other TSDF facilities located throughout the United States. 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.

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 specialty material management services including transportation, recycling, treatment and disposal of hazardous, non-hazardous and radioactive waste at Company-owned or operated landfill, wastewater, deep-well injection and other treatment facilities.

Field & Industrial Services—This segment provides specialty field services and total waste management solutions to commercial and industrial facilities and to government entities through our 10-day transfer facilities and at customer sites, both domestic and international. Specialty field services include standby services, emergency response, industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, and other services. Total waste management services include on-site management, waste characterization, transportation and disposal of non- hazardous and hazardous waste.

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 operate five permitted hazardous waste treatment, storage and disposal facilities with landfills in Beatty, Nevada; Robstown, Texas; Grand View, Idaho; Belleville, Michigan and Blainville, Québec, Canada. These facilities are 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. Our onsite treatment facilities specialize in the treatment and disposal of RCRA, TSCA, PCB remediation and certain USNRC-exempt (NORM/NARM, Technologically Enhanced NORM (TENORM)) radioactive waste. Our Canadian landfill is regulated by the Québec Ministry of Environment and authorized under the QEQA 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, specializing in processing hard to treat materials, such as cyanides, mercury compounds, strong acids, non-organic oxidizers, lab packs, contaminated debris and batteries.

We operate a commercial LLRW landfill in Richland, Washington that is licensed by the Washington Department of Health through delegated authority of the USNRC. 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 2019 and is effective until December 31, 2025.

We own and operate three landfills located in Karnes County, Texas; Pecos County, Texas and Reagan County, Texas that specialize in the disposal of drill cuttings, drilling muds and other oil field related waste streams regulated by the RRC. In addition, we own property in Andrews County, Texas, that is permitted for development as a waste disposal site for similar waste streams. These facilities are supported by a network of related oil field services capabilities including transportation, equipment rental, emergency response and other oil field services work.

As of December 31, 2019, the capacity used in the calculation of the useful economic lives of our nine landfills includes approximately 73.8 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.

We also operate a caprock injection well in Winnie, Texas 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.

We operate seven wastewater treatment facilities located in Detroit, Michigan (2); Canton, Ohio; Harvey, Illinois; York, Pennsylvania; Tulsa, Oklahoma and Vernon, California that offer a range of wastewater treatment technologies. These facilities also have RCRA-permitted storage capabilities where waste may be stored prior to treatment or transferred to another RCRA facility for treatment. We also operate a hazardous and non-hazardous industrial waste treatment, storage, and disposal facility in Tilbury, Ontario, Canada. The facility is permitted by the Ontario Ministry of Environment and specializes in the treatment of non- hazardous hydrocarbon contaminated solids to industrial re-use standards.

We also operate five additional domestic biosolid wastewater treatment facilities in Texas. These domestic wastewater treatment operations involve processing domestic wastewater through the use of physical, biological and chemical treatment methods. Our domestic wastewater treatment facilities treat a broad range of domestic wastewaters. Following treatment, the clean water is discharged under a NPDES permit while residual solids are transported to an offsite landfill.

We break our Environmental Services segment treatment and disposal ("T&D") revenue 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 78% and 80% of disposal revenue (excluding transportation and NRC) for the years ended December 31, 2019 and 2018, respectively. Event Business contributed approximately 22% and 20% of disposal revenue (excluding transportation and NRC) for the years ended December 31, 2019 and 2018, respectively.

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

A significant portion of our T&D revenue is attributable to discrete Event Business projects which vary widely in size, duration and unit pricing. For the year ended December 31, 2019, approximately 22% of our T&D revenue (excluding NRC) 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.

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 specialty and total waste management services provided to refineries, chemical plants, steel and automotive plants, and other government, commercial and industrial facilities either on-site or at our network of facilities located throughout the United States. Specialty services include industrial cleaning and maintenance, remediation, lab pack, transportation and emergency response. Our specialty and total waste management services are organized into service lines including Emergency Response, Standby Services, Small Quantity Generation, Remediation Services, Total Waste Management, Transfer and Processing, and Industrial Services.

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, seven days per week.

Standby Services

We provide government-mandated, commercial standby oil spill compliance solutions to companies that store, transport, produce or handle petroleum and certain nonpetroleum oils on or near U.S. waters. Our standby services customers pay annual retainer fees under long-term or evergreen contracts for access to our regulatory certifications, specialized assets and highly trained personnel, who are on call 24 hours per day, seven days per week to respond to marine-based oil spill and hazardous materials emergencies.

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.

Remediation Services

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

Total Waste Management ("TWM")

Through our TWM programs, customers outsource a portion of their sustainability programs to us, allowing us to organize and coordinate their waste management disposal activities and environmental compliance.

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.

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, in order 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 United States, hazardous waste is regulated under the RCRA, which created a cradle-to-grave system governing defined hazardous waste from the point of generation to ultimate disposal. RCRA requires waste generators to distinguish between “hazardous” and “non-hazardous” wastes, and to treat, store and dispose of hazardous waste in accordance with specific regulations. Generally, entities that treat, store, or dispose of hazardous waste must obtain a permit, either from the USEPA or from a state agency to which the USEPA has delegated such authority. Similar regulations and management methods apply to hazardous waste generation in Canada, which is regulated by the Canada Ministry of Environment and delegated to provincial agencies.

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

In the United States, waste intrinsically derived from primary field operations associated with the exploration, development, or production of crude oil and natural gas are exempt from regulation under RCRA Subtitle C. The RCRA Subtitle C exemption, however, does not preclude these wastes from control under state regulations, under the less stringent RCRA Subtitle D solid waste regulations, or under other federal regulations. Our landfills that support this industry are regulated by the RRC. Similar to RCRA-regulated landfills, our RRC-regulated landfills are engineered using state of the art design and constructed to permanently contain the waste and prevent the release of harmful pollutants into the environment.

OPA-90, a regulatory framework for the protection of the environment from oil spills following the 1989 Exxon Valdez spill, also imposes obligations on operators and owners of facilities, such as refineries, pipelines and E&P platforms and requires them to have a USCG compliant spill response plan.

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 United States. 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 USNRC, 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.

Emergency Response and Standby Services Industry

We provide emergency spill response services and marine-based standby oil spill compliance (the "standby services") in the United States, Mexico, the United Kingdom and other international locations.

Our emergency spill response services are designed to address both large-scale and small-scale response events. Large-scale response services typically result from natural disasters such as hurricanes, fires, floods and earthquakes as well as large industrial accidents such as pipeline spills, industrial fires, rail car derailments and marine vessel accidents. These large emergency response events are inherently difficult to predict, and when they occur can result in a significant revenue opportunity. Our small-scale emergency response services address smaller recurring industrial and transportation accidents or discharges. With the combination of our nationwide footprint, our vast service capabilities and specialized asset base, we believe the demand for these emergency response services will increase in line with overall industrial activity. We respond to multiple small-scale spill events per day, every day, across the United States, that generate an average revenue of approximately $12,000 per event.

Our standby services customers pay annual retainer fees under long-term or evergreen contracts for access to regulatory certifications, specialized assets and highly trained personnel, who are on call 24 hours per day, seven days per week to respond to an oil spill or other hazardous materials emergency response events.

OPA-90 mandates certain oil spill response coverage for companies that store, transport, produce or handle petroleum and certain non-petroleum oils on or near U.S. ports, harbors and other waters.

Our standby services business is the only national commercial OSRO in the United States and the only commercial provider of standby services that satisfies the requirements of both OPA-90 and other federal, state and municipal requirements. In addition, we hold the highest oil spill contractor classification offered by the USCG. We maintain an

installed base of specialized oil spill response equipment and highly trained personnel around the United States to ensure rapid response capabilities. We provide government-mandated standby compliance solutions to more than 2,000 customers that cover approximately 20,000 assets, including tank and non-tank vessels, barges, petrochemical facilities, pipelines, refineries and other assets.

Additionally, our internal standby services business is augmented by our network of over 200 independent contractors throughout the United States to ensure expedient response times in any location. These independent contractors provide both personnel and, if required, equipment, to meet the immediate needs of our customers. Contractors must meet stringent requirements to become part of our network. Our contractors are paid when an event occurs for work that is actually completed and, as such, do not receive any of our annual standby retainer payments.

Our standby services business is a recurring, retainer-based business model that provides opportunity for incremental marine spill response revenue. To the extent a standby services retainer customer has a spill incident, we coordinate and manage the spill response by leveraging both internal resources and our independent contractor network. We generate incremental revenue with respect to services provided through internal resources and independent contractors on all response events, in addition to the annual retainer payments we collect each year.

Our standby services contribution margin is very high in light of the expansive infrastructure that is already in place. These services are government-mandated for our customers and serve as a low-cost yet invaluable "insurance policy" in the event of an incident. High barriers to entry, driven by the high cost of infrastructure necessary to achieve economies of scale, the high cost of failure, and regulatory certification requirements, have resulted in minimal new market competitors since market inception.

Mexico represents a growth opportunity for us. The recently privatized Mexican oil and gas market has resulted in the Mexican government actively auctioning off blocks for offshore exploration to leading global oil companies. Although OPA-90 only applies to United States territories, the Mexican government and many leading global and U.S.-based companies seek OSRO-type coverage similar to that required in the United States and other countries. Our primary standby services competitor is currently unable to operate outside of U.S. waters, which leaves us well-positioned to be the provider of choice for these services internationally. This advantage has helped us become a leading OSRO in Mexico with nearly all of the Tier 1 and Tier 2 oil spill response market in Mexico.

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 believe our focus on sustainability, workforce safety and protecting the environment, as well as our passionate commitment to customer service, provides for a long-term sustainable business model. In addition to organic growth initiatives, we actively pursue acquisition opportunities to expand our geographic reach, service lines and customer base. The principal elements of our business strategy are to:

Execute Best-in-Class Sustainability and Environmental Compliance Programs.

The cornerstone of our business is providing solutions that help us and our customers protect human health and the environment. In doing so, we pursue best-in-class safety and environmental compliance at US Ecology. 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, information technology, programs and facility investments to achieve safe and compliant operations that protect the environment and all stakeholders. 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 Company's Board of Directors to improve our safety results and focus on regulatory compliance. Sustainability targets are also an important component of our company-wide incentive programs.

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, non-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. In our Environmental Services segment, our strategy is to achieve Base Business at a level that covers our fixed overhead costs and delivers 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. In our Field and Industrial Services segment, our strategy is to provide value-added services that generate downstream waste treatment and disposal opportunities for our Environmental Services segment while expanding service offerings to existing customers.

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 and recycle oil and metal catalyst from refinery waste, and stabilizing mercury laden waste and other wastes using a 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, ES&H of Dallas, LLC ("ES&H Dallas") and Ecoserv Industrial Disposal, LLC ("Winnie") in 2018 and NRC and W.I.S.E. Environmental Solutions Inc. ("US Ecology Sarnia") in 2019. The acquisition of NRC allows us to expand our operations as a leading provider of emergency response and standby services while also providing a network of over 50 locations to leverage our field service capabilities, industrial services and total waste management programs. In addition, the NRC Merger provides us an entry into specialty landfill and waste services supporting upstream oil and gas exploration. We will continue to seek acquisition opportunities to further expand our service offerings across the environmental services 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. We operate five of 20 landfills in the United States 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 United States. We also operate three landfills in Texas supporting the oil and gas exploration industry that are constructed to specifications set forth under Subtitle D of RCRA and the RRC, with a fourth location also owned by us and permitted by the RRC, but not yet constructed. Additionally, our marine resource network provides us with priority access to an extensive network of marine

assets, and our aerial resource network enables us to coordinate cargo logistics and dispersant services, with priority access to a significant number of helicopters and fixed-wing planes. Our rapid response capabilities and strategically-located facilities enable us to rapidly deploy assets and personnel within 24 hours depending on the proximity of necessary equipment. Replacing or replicating our fleet of vessels and barges utilized by our standby services business would be difficult and costly for potential competitors because our vessels are customized with oil spill recovery equipment and other vessel modifications specifically designed to enhance our effectiveness.

S*pecialized Asset Base and Essential Regulatory Certifications*. We maintain a specialized asset base and essential regulatory certifications to respond to environmental events throughout the globe whenever such events occur. We have a broad fleet of vessels, marine equipment, vehicles, rolling stock and other equipment that requires extensive training and expertise to operate. Replacing or replicating our fleet of vessels and barges utilized by our Field & Industrial Services segment would be difficult and costly for potential competitors because our vessels are customized with oil spill recovery equipment and other vessel modifications specifically designed to enhance our effectiveness. Federal, state and local legislation and other environmental agencies require numerous certifications and accreditations. These certifications are often cost and time prohibitive to obtain and require expensive multi-step, complex permitting processes. We have decades of experience successfully permitting and maintaining regulatory compliance. Certain of our barges have also been grandfathered into certain regulatory requirements. Certain of our vessels, because they are used exclusively as oil spill response vessels, are exempt from certain regulatory requirements. For example, regulations requiring barges carrying oil to have double hulls generally do not impact our current fleet. Our specialized asset base, essential regulatory certifications and entrenched market position pose a barrier to entry for potential competitors.

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 hazardous waste services sector with more than six decades of experience. Our collection of disposal assets and proprietary treatment technologies, 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.

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 2019, we serviced more than 5,000 commercial and governmental entities, such as refineries, chemical production facilities, heavy manufacturers, steel mills, oil and gas exploration companies, 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 Company’s 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, Tradebe, Ross Environmental, Stericycle, Inc., Perma-Fix Environmental Services and Veolia Environmental Services. Our waste disposal competitors serving the Permian and Eagle Ford oil fields include Republic Services, Inc., Waste Management, Inc. and Waste Connections, Inc. 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;
- comprehensive and bundled services;
- 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., Heritage Environmental Services, Tradebe, 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 our primary standby services competitor is Marine Spill Response Corporation, a not-for-profit USCG-classified OSRO.

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 (1) are larger in scale, (2) have technology, permits or equipment to handle a broader range of waste, (3) operate in jurisdictions imposing lower disposal fees and/or (4) are located closer to where wastes are generated.

Permits, Licenses and Regulatory Requirements

Obtaining authorization to construct and operate new waste disposal 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 and regulations may also apply. The applicable government regulatory agencies regularly inspect our operations to monitor compliance. Such agencies have authority to enforce compliance through the suspension or revocation of operating licenses and permits and the imposition of civil or criminal penalties in case of violations. We believe that these laws and regulations, as well as the specialized services we provide, contribute to demand and create barriers to new competitors seeking to enter the markets we serve.

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

CWA legislation prohibits discharge of pollutants into the waters of the United States without governmental authorization and regulates the discharge of pollutants into surface waters and sewers from a variety of sources, including disposal sites and treatment facilities. The USEPA has promulgated "pretreatment" regulations under the CWA, which establish pretreatment standards for introduction of pollutants into publicly-owned treatment works. In the course of the treatment process, our wastewater treatment facilities generate wastewater that 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 improper 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 these parties 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 the USEPA 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 USNRC regulatory authority over receipt, possession, use and transfer of certain radioactive materials, including disposal. The USNRC 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 USNRC 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.

Waste intrinsically derived from primary field operations associated with the exploration, development, or production of crude oil and natural gas is exempt from regulation under RCRA Subtitle C. The RCRA Subtitle C exemption, however, does not preclude these wastes from control under state regulations, under the less stringent RCRA Subtitle D solid waste regulations, or under other federal regulations. Our landfills that support this industry are regulated by the RRC. Similar

to RCRA-regulated landfills, our RRC-regulated landfills are engineered using state of the art design and constructed to permanently contain the waste and prevent the release of harmful pollutants into the environment.

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.

Our transportation operations are regulated by the U.S. Department of Transportation, the Federal Railroad Administration, the Federal Aviation Administration and the USCG, as well as by the regulatory agencies of each state in which we operate or through which our vehicles pass, including but not limited to the RRC.

OPA-90 establishes a regulatory and liability regime for the protection of the environment from oil spills. Enacted by Congress in 1990 after the Exxon Valdez tanker oil spill in Alaska, OPA-90 (1) consolidated the existing federal oil spill laws under one program, (2) expanded the existing liability provisions within the CWA and (3) established new freestanding requirements regarding marine oil spill prevention and response. Under its provisions, all U.S. tank vessels, offshore facilities and certain onshore facilities (including pipelines, refineries and terminals) are required to prepare and submit oil spill response plans to the relevant federal agency. In general, these vessels and facilities are prohibited from handling, storing and transporting oil if they do not have a plan approved by (or submitted to) the appropriate agency. The plans must provide, among other things, details of how the owner or operator of a vessel or facility would respond to a “worst case” scenario spill. While every vessel or facility is not required to have all of the personnel and equipment needed to respond to a “worst case” spill, they each must have a plan and procedures to call upon (typically through a contractual relationship with an OSRO), the necessary equipment and personnel for responding to such a spill within a prescribed timeframe.

In 2004, Congress amended OPA-90 to require that all vessels over 400 gross tons (not just tankers) prepare and submit a vessel response plan, as many non-tank vessels pose the same oil spill risk as small tank vessels due to the comparable volume of oil they have onboard for fuel. In 2013, regulations for non-tank vessels were further tightened, and OPA-90 compliance now requires that non-tank vessel operators contract directly with an OSRO.

The OSRO classification process was developed to facilitate the preparation and review of facility and vessel response plans. The OSRO classification process represents standard guidelines by which the USCG and plan developers can evaluate an OSRO’s potential to respond to and recover oil spills of various sizes. OSROs are classified based on the location of response resources and an assessment of the ability to mobilize those resources to the Captain of the Port (“COTP”) city or alternate classification city. There are equipment standards and response times specific to each operating area within a COTP zone. Customers that arrange for the services of a USCG-classified OSRO do not have to list their response resources in their response plans. In addition to potential liability under the federal OPA-90, vessel owners may in some instances incur liability on an even more stringent basis under state law in the particular state where the spillage occurred.

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 Canadian provinces retain control over environmental matters within their respective 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 and Climate Change 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"). Regulation 347, independently developed by the Province, regulates the collection, storage, transportation, treatment, recovery and disposal of hazardous wastes.

Waste transporters are required to hold a permit to operate under the provincial 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 of 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 once the waste is transferred. 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.

Maritime Regulations

We own and use in our operations 43 vessels registered under the U.S. flag and one registered under the Panamanian flag. Accordingly, we are subject to various U.S. federal, state and local statutes and regulations governing the ownership, operation and maintenance of our vessels. Our U.S.-flag vessels are subject to the jurisdiction of the USCG, the United States Customs and Border Protection and the United States Maritime Administration. We are also subject to international laws and conventions and the local laws of foreign jurisdictions where we operate.

A portion of the operations of our standby services business is conducted in the U.S. coastwise trade. This is a protected market that is subject to U.S. cabotage laws that impose certain restrictions on the ownership and operation of vessels in the U.S. coastwise trade. These laws are principally contained in 46 U.S.C. Chapters 121, 505 and 551 and the related regulations, which are commonly referred to collectively as the "Jones Act." The Jones Act restricts transportation of merchandise by water or by land and water, either directly or via a foreign port, between points in the United States and certain of its island territories. Subject to limited exceptions, the Jones Act requires that vessels engaged in U.S. coastwise trade be owned and operated by U.S. citizens within the meaning of the Jones Act ("U.S. Citizens"), be built in and registered under the laws of the United States and manned by predominantly U.S. Citizen crews.

Under the citizenship provisions of the Jones Act, we would not be permitted to engage in U.S. coastwise trade if more than 25% of any class or series of our outstanding equity was owned by non-U.S. Citizens (within the meaning of the Jones Act). For a corporation engaged in the U.S. coastwise trade to be deemed a U.S. Citizen: (1) the corporation must be organized under the laws of the United States or of a state, territory or possession thereof, (2) each of the chief executive officer, by whatever title, and the chairman of the board of directors of such corporation must be a U.S. Citizen, (3) no more than a minority of the number of directors of such corporation necessary to constitute a quorum for the transaction of business can be non-U.S. Citizens, (4) at least 75% of the ownership and voting power of each class or series of the shares of the capital stock of such corporation must be owned and controlled by U.S. Citizens, free from any trust or fiduciary obligations in favor of non-U.S. Citizens and (5) there must be no contract or understanding or other means by which more than 25% of the voting power or control of such corporation may be exercised directly or indirectly by or on behalf of non-U.S. Citizens.

Our charter includes provisions (1) limiting the ownership of any class or series of our capital stock by non-U.S. Citizens to 24% (so as to allow a margin of safety under the statutory maximum of 25%), (2) prohibiting the transfer of shares of our capital stock if doing so would cause us to exceed the 24% non-U.S. Citizen ownership threshold (any such shares, the "Excess Shares"), (3) authorizing the redemption of Excess Shares by the Company, (4) suspending the right to vote and to receive dividends and distributions for such Excess Shares, (5) establishing procedures for the redemption of Excess Shares including providing notice and setting the redemption price, (6) authorizing us to make citizenship determinations

with respect to the holders of our capital stock, (7) requiring holders (including beneficial holders) of our capital stock to submit information to establish the citizenship of such holder and (8) generally authorizing our Board of Directors to take appropriate action to monitor and maintain compliance with the ownership requirements of the Jones Act.

All of our offshore vessels are subject to either U.S. or international safety and classification standards, and sometimes both. U.S.-flag vessels, barges and crewboats are required to undergo periodic inspections pursuant to USCG regulations. The vessels registered under the Aruban flag and Panamanian flag are subject to similar regulations and are governed by the laws of the applicable foreign jurisdictions.

We are in compliance with the International Ship and Port Facility Security Code (the "ISPFS Code"), an amendment to the International Convention for the Safety of Life at Sea ("SOLAS") as implemented in the Maritime Transportation and Security Act of 2002 to align United States regulations with those of SOLAS and the ISPS Code. The ISPS Code provides that owners or operators of certain vessels and facilities must provide security and security plans for their vessels and facilities and obtain appropriate certification of compliance. Under the ISPS Code, we perform worldwide security assessments, risk analyses and develop vessel and required port facility security plans to enhance safe and secure vessel and facility operations. Additionally, we have developed security annexes for those U.S.-flag vessels that transit or work in waters designated as high risk by the USCG pursuant to the latest revision of Marsec Directive 104-6.

Insurance, Financial Assurance and Risk Management

We carry a broad range of insurance coverage, including general liability, automobile liability, real and personal property, business interruption, workers compensation, directors and officers liability, environmental impairment liability and other coverage customary for a company of our size in our industry. We purchase primary property, casualty and excess liability policies through traditional third-party insurance carriers. We are self-insured for employee healthcare 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 workers' compensation and 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 $2.5 million deductible per occurrence for property and business interruption and a $500,000 deductible per occurrence for contractors' equipment. The program also includes flood, earthquake and wind coverage within the loss limit subject to applicable deductibles. For our Vernon, California facility, we maintain an additional $10.0 million of coverage for earthquakes. A separate boiler and machinery program with a loss limit of $100.0 million for property damage and business interruption is also maintained. Our Canadian property program provides coverage for real and personal property, business interruption and contractors' equipment with a loss limit of $84.0 million, subject to applicable per-occurrence deductibles. This program includes flood and earth-movement coverage within the stated loss limits. A separate Canadian boiler and machinery program with a loss limit of $86.0 million is also maintained.

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 and regained additional capabilities throughout the remainder of 2019. We expect the completion of the construction of a new treatment building and resumption of full capabilities in late 2020. 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 from waste generators to fund dedicated, state-controlled escrow or trust accounts during the operating life of the facility. Through December 31, 2019, 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 December 2020. As of December 31, 2019, we have provided collateral of $5.1 million in funded trust agreements, $23.1 million in surety bonds, issued $3.6 million in letters of credit for financial assurance and have insurance policies of approximately $103.5 million for closure and post-closure obligations. We maintain surety bonds for closure costs associated with the Blainville, Québec, Canada facility. Our lease agreement with the Province of Québec requires that the surety bond be maintained for 25 years after the lease expires. As of December 31, 2019, we had $775,000 in commercial surety bonds dedicated for closure obligations at our Blainville, Québec, Canada facility.

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 with primary limits of $30.0 million subject to a $250,000 deductible per occurrence. Additional limits of $25.0 million in total are available in excess to the primary RCRA site specific pollution liability policy.

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.

NRC carried a broad range of insurance coverage specific to its operations which have been maintained through December 31, 2019, including non-owned aviation liability coverage and robust hull protection and indemnity insurance coverage. International operations exposures are addressed under locally placed insurance policies compulsory in the specific countries of operation and benefit from excess and difference in condition coverages. NRC's directors and officers liability exposures were absorbed into the Company's directors and officers liability insurance program effective November 1, 2019. Directors and officers extended reporting period coverage ("tail coverage") was added to address NRC-specific claims arising after the NRC Merger, related to activities occurring prior to the NRC Merger. A remarketing of NRC's independent insurance program is currently underway with intentions to integrate it into our existing insurance program.

Significant Customers

No customer accounted for more than 10% of total revenue for the years ended December 31, 2019, 2018, or 2017.

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 weather-related reduced construction activities. 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, 2019, we had approximately 3,800 employees, of which approximately 400 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 was an executive officer of US Ecology as of December 31, 2019:

Name	Age	Title
Jeffrey R. Feeler	50	President and Chief Executive Officer
Simon G. Bell	49	Executive Vice President and Chief Operating Officer
Eric L. Gerratt	49	Executive Vice President, Chief Financial Officer and Treasurer
Steven D. Welling	61	Executive Vice President of Sales and Marketing
Andrew P. Marshall	53	Executive Vice President of Regulatory Compliance & Safety

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

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

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

Steven D. Welling was appointed Executive Vice President of Sales and Marketing in May 2013. Mr. Welling previously served as the Company's Senior Vice President, Sales and Marketing from January 2010 to May 2013. He joined US Ecology in 2001 through the Envirosafe Services of Idaho acquisition. He previously served as National Accounts Manager for Envirosource Technologies and Western Sales Manager for Envirosafe Services of Idaho and before that managed new 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 30 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.

ITEM 1A. RISK FACTORS

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

Risks Affecting All of Our Businesses

The Company may be unable to integrate successfully the business of NRC and realize the anticipated benefits of the NRC Merger

On November 1, 2019, the Company closed the NRC Merger. The success of the NRC Merger depends, in large part, on the ability of the Company to realize the anticipated benefits, including cost savings, from combining the businesses of the Company and NRC. Prior to the acquisition of NRC, the Company had never pursued an acquisition of comparable size or complexity. To realize these anticipated benefits, the businesses of the Company and NRC must be integrated successfully. This integration is complex and time consuming. The failure to successfully integrate and manage the challenges presented by the integration process may result in the combined company not fully achieving the anticipated benefits of the NRC Merger. Any failure to timely realize these anticipated benefits would have a material adverse effect on our business, operating results, and financial condition, and could also have a material and adverse effect on the trading price or trading volume of our common stock. Potential difficulties the Company may encounter as part of the integration process, many of which may be beyond the control of management, include the following:

- the inability to successfully combine the businesses of the Company and NRC in a manner that permits the combined company to achieve the full synergies anticipated to result from the NRC Merger;
- complexities and unanticipated issues associated with managing the combined businesses, including the challenge of integrating complex systems, technology, networks, financial procedures, communications programs and other assets, procedures or policies of each of the companies in a seamless manner that minimizes any adverse impact on customers, suppliers and other constituencies;
- coordinating geographically separated organizations, systems and facilities;
- difficulties in managing a larger combined company, addressing possible differences in business backgrounds, corporate cultures, maintaining employee morale and management philosophies and retaining key personnel;
- unanticipated changes in applicable laws and regulations;
- integrating the workforces of the two companies while maintaining focus on achieving strategic initiatives;
- the possibility of faulty assumptions underlying expectations regarding the integration process;
- potential unknown liabilities and unforeseen increased or new expenses, delays or regulatory conditions associated with the NRC Merger;
- consolidating corporate and administrative infrastructures and eliminating duplicative operations;
- the increase in our leverage and debt service requirements in connection with the NRC Merger could restrict our ability to access additional capital when needed, result in a decrease in our credit rating, or limit our ability to pursue other important elements of our business strategy;
- managing tax costs or inefficiencies associated with integrating the operations of the combined company; and

- making any necessary modifications to internal financial control standards to comply with the Sarbanes-Oxley Act of 2002, as amended, and the rules and regulations promulgated thereunder.

In addition, US Ecology and NRC operated independently prior to the closing of the NRC Merger. It is possible that the integration process could result in:

- ongoing diversion of the attention of each company's management and resources from other strategic opportunities and from operational matters;

- latent impacts resulting from the diversion of the Company's management team from ongoing business concerns as a result of the devotion of management's attention to the integration process;

- disruption of existing relationships with customers and suppliers;

- an interruption of, or a loss of momentum in, the activities and business operations of the Company, which could seriously harm the results of operations; and

- inconsistencies in standards, controls, procedures and policies, any of which could adversely affect the Company ability to maintain relationships with customers, suppliers, employees and other constituencies or the Company's ability to achieve the anticipated benefits of the NRC Merger, or which could adversely affect the business and financial results of the Company.

The Company has incurred, and expects to continue to incur, substantial expenses related to the NRC Merger and the integration of the Company and NRC.

The Company expects to incur substantial expenses in connection with the NRC Merger and the integration of the Company and NRC. There are a large number of processes, policies, procedures, operations, technologies and systems that must be integrated, including purchasing, accounting, finance and payroll. While the Company and has assumed that a certain level of expenses would be incurred, there are many factors beyond its control that could affect the total amount or the timing of the integration expenses. Moreover, many of the expenses that will be incurred are, by their nature, difficult to estimate accurately. These expenses could, particularly in the near term, exceed the savings that the combined company expects to achieve from the elimination of duplicative expenses and the realization of economies of scale and cost savings. These integration expenses likely will result in the combined company taking significant charges against earnings following the completion of the NRC Merger, and the amount and timing of such charges are uncertain at present.

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 projects (non-recurring project-based work) which vary 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 revenue 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, service offerings we do not provide and that can provide lower pricing than we can in certain instances. An increase in the number or location of commercial treatment or disposal facilities for hazardous or radioactive waste, significant expansion of existing competitor permitted capabilities, acquisitions by competitors or a decrease in the treatment or disposal fees charged by competitors could materially and adversely affect our results of operations. Our business is also

heavily affected by waste disposal fees imposed by government agencies. These fees, which vary from state to state and are periodically adjusted, may adversely impact the competitive environment in which we operate.

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

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

We could incur liability, including under environmental laws, rules and regulations, in connection with providing spill response services.

We may incur increased legal fees and costs in connection with providing spill response services. Although the services provided by us are generally exempt in the United States from liability under the CWA, this exemption might not apply to our own actions and omissions in providing spill response services if we are found to have been grossly negligent or to have engaged in willful misconduct, or if we have failed to provide these services consistent with applicable regulations and directives under the CWA. In addition, the exemption under the federal CWA would not protect a company against liability for personal injury or wrongful death, or against prosecution under other federal or state laws. Although most of the states within the United States in which we provide services have adopted similar exemptions, several states have not. If a court or other applicable authority were to determine that we do not benefit from federal or state exemptions from liability in providing emergency response services, we could be liable, together with the local contractor and the responsible party, for any resulting damages, including damages caused by others. In the international market, we do not benefit from the spill response liability protection provided by the CWA and therefore are subject to the liability terms and conditions negotiated with our international clients.

If Congress repeals the exemption to liability for responders that is discussed above, or otherwise scales back the protections afforded to contractors thereunder, there may be increased exposure for remediation work and the cost for securing insurance for such work may become prohibitively expensive. In addition, more generally Congress could increase or remove the limits of liability currently in place under OPA 90 for facilities and vessels. Without affordable insurance and appropriate legislative regulation limiting liability, drilling, exploration, remediation and further investment in oil and gas exploration in the U.S. Gulf of Mexico may be discouraged and thus reduce the demand for our services.

We could incur liability under environmental laws, rules and regulations in connection with providing waste disposal services.

Environmental laws and regulations impose liability and responsibility on present and former owners, operators or users of facilities and sites for contamination at such facilities and sites without regard to fault or knowledge of contamination. In the past, practices have resulted in releases of regulated materials at and from certain of our facilities, or the disposal of regulated materials at third-party sites, which require investigation and remediation and may potentially result in claims of personal injury, property damage and damages to natural resources. In addition, we occasionally evaluate various alternatives with respect to our facilities, including possible dispositions or closures. Investigations undertaken in connection with these activities may lead to discoveries of contamination that must be remediated, and closures of facilities might trigger compliance requirements that are not applicable to operating facilities. We are currently conducting remedial activities at certain of our facilities and paying a portion of the remediation costs at certain sites owned by third parties. Based on available information, we believe these remedial activities will not result in a material adverse effect on our business, financial position, result of operations and cash flows. However, these activities or the discovery of previously unknown conditions could result in material costs.

In addition, we are required to obtain governmental permits to provide our services, operate our facilities, including all of our landfills, and expand our operations. Although we are committed to compliance and safety, we may not, either now or in the future, be in full compliance at all times with such laws, rules and regulatory requirements or be able to renew or procure governmental permits. As a result, we could be required to incur significant costs to maintain or improve our compliance with such requirements. Moreover, failure to comply with applicable laws, rules and regulations may also result in administrative and civil penalties, criminal sanctions or the suspension or termination of our operations.

From time to time, we have paid fines or penalties in governmental environmental enforcement proceedings, usually involving our waste treatment, storage and disposal facilities. Although none of these fines or penalties has had a material adverse effect upon us, we might in the future be required to make substantial expenditures as a result of governmental proceedings which would have a negative impact on our earnings. Furthermore, regulators have the power to suspend or revoke permits or licenses needed for operation of our plants, equipment and vehicles based on, among other factors, our compliance record. Suspension or revocation of permits or licenses would impact our operations and could have a material impact on our financial results.

Existing or future laws and regulations related to greenhouse gases and climate change could have an impact on our business and may result in additional compliance obligations on us and our customers.

Changes in environmental requirements related to greenhouse gases and climate change may impact demand for our services. For example, oil and natural gas exploration and production may decline as a result of environmental requirements, including land use policies responsive to environmental concerns. However, increased environmental requirements could also increase demand for our services. Local, state and federal agencies have been evaluating climate-related legislation and other regulatory initiatives that would restrict emissions of greenhouse gases in areas in which we conduct business. To a certain extent our business depends on the level of activity in the oil and natural gas industry, existing or future laws and regulations related to greenhouse gases and climate change, including incentives to conserve energy or use alternative energy sources, could have an impact on our business if such laws or regulations reduce demand for oil and natural gas.

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

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

We are subject to complex laws, rules and regulations relating to our securities, including rules and regulations promulgated by the SEC, that can adversely affect the cost, manner or feasibility of doing business.

We are also subject to laws and regulations enacted by national, regional and local governments, including non-U.S. governments, relating to our securities. In particular, we are required to comply with certain SEC and other legal requirements. Compliance with, and monitoring of, applicable securities laws and regulations may be difficult, time consuming and costly. Those laws and regulations and their interpretation and application may also change from time to time and those changes could have a material adverse effect on our business, investments and results of operations. In addition, a failure to comply with applicable laws or regulations, as interpreted and applied, could have a material adverse effect on our business and results of operations.

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 and regained additional capabilities throughout the remainder of 2019. On January 10, 2020, we entered into a settlement agreement with OSHA settling a complaint made by OSHA relating to the incident for $50,000. On January 28, 2020, the Occupational Safety and Health Review Commission issued an order terminating the proceeding relating to such OSHA complaint. We have not otherwise been named as a defendant in any third-party 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.

Failure to maintain an acceptable safety record may have an adverse impact on our ability to retain and acquire customers.

Our current and prospective customers consider safety and reliability a primary concern in selecting a service provider. We must maintain a record of safety and reliability that is acceptable to our customers. Should this not be achieved, our ability to retain current customers and attract new customers may be adversely affected.

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, including our acquisition of NRC in 2019, we have goodwill of $767.0 million, non-amortizing intangible assets of $103.9 million and amortizing intangible assets of $471.0 million at December 31, 2019. 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.

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 to be false and the projected growth not occur for these or other reasons, 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 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, 2019, 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.

We may experience risks from our international operations.

Our ability to compete in the international market may be adversely affected by foreign government regulations that favor or require the awarding of contracts to local competitors, or that require non-U.S. Citizens to employ citizens of, or purchase supplies from, a particular jurisdiction. Further, our foreign subsidiaries may face governmentally imposed restrictions on their ability to transfer funds to their parent company. Activity outside the United States involves additional risks, including the possibility of:

- United States embargoes or restrictive actions by U.S. and foreign governments that could limit our ability to provide services in foreign countries;
- a change in, or the imposition of, withholding or other taxes on foreign income, tariffs or restrictions on foreign trade and investment;
- limitations on the repatriation of earnings or currency exchange controls and import/export quotas;
- local cabotage and local ownership laws and requirements;
- nationalization, expropriation, asset seizure, blockades and blacklisting;
- limitations in the availability, amount or terms of insurance coverage;
- loss of contract rights and inability to enforce contracts;
- political instability, war and civil disturbances or other risks that may limit or disrupt markets, such as terrorist attacks, piracy and kidnapping;

- the impact of public health epidemics like the coronavirus which originated in the Wuhan region of China;
- fluctuations in currency exchange rates, hard currency shortages and controls on currency exchange that affect demand for our services and profitability;
- potential noncompliance with a wide variety of laws and regulations, such as the FCPA, and similar non-U.S. laws and regulations, including the U.K. Bribery Act 2010;
- labor strikes and volatility in labor costs;
- changes in general economic and political conditions; and
- difficulty in staffing and managing widespread operations.

In addition, to the extent that we use a non-U.S. currency as a functional currency in a particular territory, we are exposed to fluctuations in the value of such currency. In addition, risks related to our activities outside of the United states include the repatriation of cash to the United States and the imposition of additional taxes on our foreign income.

Moreover, our business is also impacted by the negotiation and implementation of free trade agreements between the United States and other countries. Such agreements can reduce barriers to international trade and thus the cost of conducting business overseas. For instance, the United States recently reached a new trilateral trade agreement with the governments of Canada and Mexico to replace the North American Free Trade Agreement ("NAFTA"). If the United States withdraws from NAFTA and the three countries fail to approve the new agreements, known as the United States-Mexico-Canada Agreement, our cost of doing business within the three countries could increase.

Any of the foregoing or other factors associated with doing business abroad could adversely affect our business, financial condition and results of operations.

Changes to U.S. tariff and import/export regulations may have a negative effect on the markets and industries we serve and, in turn, harm us.

Recently, there have been significant changes to U.S. trade policies, treaties and tariffs, which have resulted in uncertain economic and political conditions that have made it difficult for us and our customers to accurately forecast and plan future business activities. For example, the U.S. has imposed tariffs on certain products imported into the U.S. from China, the European Union and other countries, and could impose additional tariffs or trade restrictions. Such changes to U.S. policies related to global trade and tariffs have resulted in uncertainty surrounding the future of the global economy and have resulted in certain retaliatory trade measures and tariffs implemented by other countries. These developments, or the perception that any of them could occur, may have a material adverse effect on global economic conditions and the stability of global financial markets, and may significantly reduce global trade and, in particular, trade between the impacted nations and the United States. Any of these factors could depress economic activity and have a material adverse effect on the business and financial condition of our customers, which in turn could negatively impact us.

Fluctuations in the commodity market related to the demand and production of oil, gas and other energy-related commodities may affect our business, financial position, results of operations and cash flows.

Declines in the production level of oil, gas and other energy-related commodities could have significant adverse effects on us. Commodity demand fluctuates for several reasons, including, but not limited to, changes in market and economic conditions, the impact of weather, levels of domestic and international production, domestic and foreign governmental regulation, national protectionism policies and trade disputes. Volatility of commodity demand, which may lead to a reduction in production or supply of the commodity, may negatively impact the demand for our services. A decline in the demand for these services may have a material adverse effect on our business, financial position, results of operations and cash flows.

A change in, or revocation of, our classification as an OSRO could result in a loss of business.

NRC, a wholly owned subsidiary of the Company, is classified by the USCG as an OSRO. The USCG classifies OSROs based on their overall ability to respond to various types and sizes of oil spills. USCG-classified OSROs have a competitive advantage over non-classified service providers because customers of a classified OSRO may cite classified OSROs in their response plans in lieu of listing their oil spill response resources in filings with the USCG. A loss of our classification or changes in the requirements for classification could eliminate or diminish our ability to provide customers with this exemption. If this happens, our Field & Industrial Service segment could lose customers.

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

We use computers in substantially all aspects of our business operations. We also use mobile devices and other online activities to connect with our employees and our customers. Such uses of technology give rise to cybersecurity risks, including security breach, espionage, system disruption, theft and inadvertent release of information. Our business involves the storage and transmission of numerous classes of sensitive and/or confidential information and intellectual property, including customers' personal information, private information about employees, and financial and strategic information about the Company and its business partners. Further, if the Company in the future pursues acquisitions or new initiatives that require expanding or improving our information technologies, this may result in a larger technological presence and corresponding exposure to cybersecurity risk. If we fail to assess and identify cybersecurity risks associated with acquisitions and new initiatives, we may become increasingly vulnerable to such risks. Further, despite these security measures, the Company's computer systems and infrastructure may be vulnerable to attacks by hackers or breached due to employee error, malfeasance, or other disruptions. Additionally, while we have implemented measures to prevent security breaches and cyber incidents, our preventative measures and incident response efforts may not be entirely effective, 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 and various foreign 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 foreign

tax authorities of jurisdictions within which we operate 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 523, or approximately 14%, of our employees. 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.

We rely on third-party contractors to provide important emergency response services to our customers.

We rely on independent contractors to provide services and support to our customers. While the use of independent contractors expands the reach and customer base for our services, the maintenance and administration of these relationships is costly and time consuming. If we do not enter into arrangements with these independent contractors on financially acceptable terms, these relationships may have a material adverse effect on our business, financial position, results of operations and cash flows.

Additional Risks of Our Environmental Services Business

Our energy waste business could be adversely affected by changes in laws regulating energy waste.

We believe that the demand for our energy waste services is directly related to the regulation of energy waste. In particular, RCRA, which governs the disposal of solid and hazardous waste, currently exempts certain energy wastes from classification as hazardous wastes. In recent years, proposals have been made to rescind this exemption from RCRA. If the exemption covering energy wastes is repealed or modified, or if the regulations interpreting the rules regarding the treatment or disposal of this type of waste were changed, our operations could face significantly more stringent regulations, permitting requirements, and other restrictions, which could have a material adverse effect on our business.

In addition, if new federal, state, provincial or local laws or regulations that significantly restrict hydraulic fracturing are adopted, such legal requirements could result in delays, eliminate certain drilling and injection activities and make it more difficult or costly for our customers to perform fracturing. Any such regulations limiting or prohibiting hydraulic fracturing could reduce our customers' oil and natural gas exploration and production activities and, therefore, adversely affect our business. Such laws or regulations could also materially increase our costs of compliance and doing business by more strictly regulating how hydraulic fracturing wastes are handled or disposed. Conversely, any loosening of existing federal, state, provincial or local laws or regulations regarding how such wastes are handled or disposed could adversely impact demand for our services.

Lower crude oil prices may adversely affect the level of exploration, development and production activity of energy companies and the demand for our energy waste services.

Lower crude oil prices and the volatility of such prices may affect the level of investment and the amount of linear feet drilled in the basins where we operate, as it may impact the ability of energy companies to access capital on economically advantageous terms or at all. In addition, energy companies may elect to decrease investment in basins where the returns on investment are inadequate or uncertain due to lower crude oil prices or volatility in crude oil prices. Such reductions in

capital spending would negatively impact energy waste generation and therefore the demand for our services. Further, we cannot provide assurances that higher crude oil prices will result in increased capital spending and linear feet drilled by our customers in the basins where we operate.

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 healthcare coverage. Stop-loss insurance is carried covering liability on claims in excess of $300,000 per individual. Accrued costs related to the self-insured healthcare coverage were $1.0 million and $826,000 at December 31, 2019 and 2018, 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, 2019, 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 December 2020 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 2020 and for our Texas energy waste landfills that expire in May 2020 and February 2021. 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, 2019, we had provided collateral of $5.1 million in funded trust agreements, $23.1 million in surety bonds, issued $3.6 million in letters of credit for financial assurance and have insurance policies of approximately $103.5 million for closure and post-closure obligations at covered U.S. operating facilities. As of December 31, 2019, we have $775,000 in commercial surety bonds dedicated for closure obligations at our Blainville, Québec, Canada 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.

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 (as described herein), 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, 2019, approximately 22% of our T&D revenue was derived from Event Business projects. The one-time nature of Event Business, diverse spectrum of waste types received and widely varying unit pricing necessarily creates variability in revenue and earnings. This variability may be influenced by general and industry-specific economic conditions, funding availability, changes in laws and regulations, government enforcement actions or court orders, public controversy, litigation, weather, commercial real estate, closed military bases and other project timing, government appropriation and funding cycles and other factors. This variability can cause significant quarter-to-quarter and year-to-year differences in revenue, gross profit, gross margin, operating income and net income. Also, while we pursue many large projects months or years in advance of work performance, both large and small cleanup project opportunities routinely arise with little or no prior notice. These market dynamics are inherent to the waste disposal business and are factored into our projections and externally communicated business outlook statements. Our projections combine historical experience with identified sales pipeline opportunities, new or expanded service line projections and prevailing market conditions. A reduction in the number and size of new cleanup projects won to replace completed work could have a material adverse effect on our financial condition and results of operations.

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 that is 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 to such customers. 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.

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, Canada, the United Kingdom, Mexico, Europe, the Middle East, and Africa but report revenue, costs and earnings in U.S. dollars. In fiscal 2019, we recorded approximately 14% of our revenues outside of the United States. Exchange rates between the U.S. dollar and local currencies 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.

Additional Risks of Our Field & Industrial Services Business

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

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

Additional Risks of Completed and Potential Acquisitions

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

In addition to the risks listed above relating to the NRC Merger, acquisitions by the Company may involve multiple other 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 an 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 the acquisitions we desire for a number of reasons. Suitable acquisition candidates may not be available at purchase prices that are attractive to us or on terms that are acceptable to us. In pursuing acquisition opportunities, we typically compete with other companies, some of which have greater financial and other resources than we do. We may not have available funds or common stock with a sufficient market price to complete an acquisition. If we are unable to secure sufficient funding for potential acquisitions, we may not be able to complete acquisitions that we otherwise find advantageous.

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

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

Risks Relating to our Capital Structure

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 Credit Agreement. Our Board of Directors must also approve any dividends at their sole

discretion. Pursuant to the 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 Amended and Restated Certificate of Incorporation (the "charter") 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.

Sales of a substantial number of shares of our common stock into the public market by certain stockholders may result in significant downward pressure on the price of our common stock and could affect your ability to realize the current trading price of our common stock.

Sales of a substantial number of shares of our common stock in the public market by certain stockholders could cause a reduction in the market price of our common stock. In connection with the closing of the NRC Merger, certain affiliates of JFL-NRC-SES Partners, LLC, the majority stockholder of NRC prior to the closing of the NRC Merger (collectively, the "JFL Entities"), were issued an aggregate of 5,440,798 shares of our common stock. In connection with our entry into the Merger Agreement, Predecessor US Ecology entered into that certain investor agreement, dated June 23, 2019, by and among Predecessor US Ecology, certain affiliates of the JFL Entities and NRC which provided, among other things, that 1/3 of such shares were restricted from resale for a period of 60 days from the closing of the NRC Merger, 1/3 of such shares were restricted from resale for 90 days from the closing of the NRC Merger, and 1/3 of such shares were restricted from resale for 120 days from the closing of the NRC Merger. As of February 29, 2020, the restriction on resale applicable to all of such shares expired. Dispositions of these securities by the JFL Entities may result in downward pressure on the price of our common stock.

Any significant downward pressure on the price of our common stock as the selling stockholders sell their shares of our common stock could encourage short sales by the selling stockholders or others. Any such short sales could place further downward pressure on the price of our common stock.

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;
- 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."

There is no guarantee that our warrants will ever be in the money and they may expire worthless.

The exercise price for our warrants is $58.67 per share of common stock, subject to certain restrictions set forth in the Warrant Agreement (as defined below). There is no guarantee that the warrants will ever be in the money prior to their expiration, and as such, the warrants may expire worthless. In addition, our warrants were issued to holders of warrants of NRC prior to the NRC Merger in registered form under that certain Assignment, Assumption and Amendment to the Warrant Agreement, dated as of November 1, 2019, by and between US Ecology, Inc., American Stock Transfer & Trust Company, LLC, NRC and Continental Stock Transfer & Trust Company (the "Warrant Agreement"). The Warrant Agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 65% of the then-outstanding warrants to make any change that adversely affects the interests of the registered holders.

Increases in transportation costs may adversely affect our business and reduce our earnings.

We maintain an expansive transportation network and an extensive fleet of transportation vehicles. A significant increase in market prices for vehicles or fuel could adversely affect our business through higher transportation costs and reduce our operating margins and reported earnings.

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, Predecessor US Ecology entered into a new senior secured credit agreement (as amended, the "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 $40.0 million sublimit for the issuance of swingline loans used to fund short-term working capital requirements. The 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. On August 6, 2019 and November 1, 2019, the Credit Agreement was amended to permit and provide for Wells Fargo to lend $450.0 million in incremental terms loans to pay off the existing debt of NRC in connection with the NRC Merger, to pay the fees, costs and expenses in connection with the NRC Merger and to pay down outstanding revolving credit loans under the Credit Facility. As of December 31, 2019, we had total indebtedness of $777.0 million, comprised of $450.0 million of term loans and $327.0 million of revolving credit loans out of a $500.0 million revolving credit commitment under the Revolving Credit Facility. These revolving credit loans are due upon the earliest to occur of (1) November 1, 2024 (or, with respect to any lender, such later date as requested by us and accepted by such lender), (2) the date of termination of the entire revolving credit commitment (as defined in the Credit Agreement) by us and (3) termination of the Credit Agreement. The term loan is due upon the earliest to occur of (a) November 1, 2026 (or, with respect to any lender, such later date as requested by us and accepted by such lender) and (b) termination of the Credit Agreement. The 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 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 Credit Agreement depends upon our compliance with the restrictions contained in the Credit Agreement and events beyond our control could affect our ability to comply with these covenants.

Changes in the method of determining LIBOR, or the replacement of LIBOR with an alternative reference rate, may adversely affect interest expense related to our debt.

Amounts drawn under our credit facilities bear interest rates at the election of the borrower, in relation to LIBOR or an alternate base rate. On July 27, 2017, the Financial Conduct Authority in the United Kingdom announced that it would phase out LIBOR as a benchmark by the end of 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021. The U.S. Federal Reserve is considering replacing U.S. dollar LIBOR with a newly created index called the Secured Overnight Financing Rate, calculated with a broad set of short-term repurchase agreements backed by treasury securities. Our credit facilities contain certain provisions concerning the possibility that LIBOR may cease to exist, and that an alternative reference rate may be chosen. However, if LIBOR in fact ceases to exist, and no alternative rate is acceptable to the Company or its lenders, amounts drawn under our credit facilities would be subject to the alternate base rate, which may be a higher interest rate than LIBOR which would increase our interest expense. As a result, we may need to renegotiate our credit facilities and may not be able to do so with terms that are favorable to us. The overall financial market may be disrupted as a result of the phase-out or replacement of LIBOR. Disruption in the financial market or the inability to renegotiate the credit facility with favorable terms could have a material adverse effect on our business, financial position, and operating results.

Risks Related to the Jones Act

Our business would be adversely affected if we failed to comply with the Jones Act's restrictions on ownership of our capital stock by non-U.S. Citizens.

A substantial portion of our operations is conducted in the U.S. coastwise trade and is subject to the requirements of the Jones Act. The Jones Act restricts waterborne transportation of merchandise and passengers for hire by water or by land and water, either directly or via a foreign port, between points in the United States and certain of its island territories and possessions to U.S.-flag vessels meeting certain requirements, including ownership and control by U.S. Citizens (within the meaning of the Jones Act). We are responsible for monitoring the non-U.S. Citizen ownership of our common stock and other equity interests to ensure compliance with the Jones Act. We could lose the privilege of owning and operating vessels in the U.S. coastwise trade if non-U.S. Citizens were to own or control, in the aggregate, more than 25% of our common stock or other equity interests in us. Such a loss would have a material adverse effect on our business and results of operations. Violations of the Jones Act would result in us losing eligibility to engage in the U.S. coastwise trade, the imposition of substantial penalties against us, including fines and seizure and forfeiture of our vessels, and/or the temporary or permanent inability to document our vessels in the United States with coastwise endorsements, any of which could have a material adverse effect on our financial condition and results of operations. Although we currently believe we meet the

requirements to engage in the U.S. coastwise trade, and there are provisions in the charter that were designed to assist us in complying with these requirements, there can be no assurance that we will be in compliance with the Jones Act in the future.

Repeal, amendment, suspension or non-enforcement of the Jones Act would result in additional competition for a substantial portion of our services and could have a material adverse effect on our business.

We are subject to the Jones Act, which restricts the transportation of merchandise and passengers for hire by water or by land and water, either directly or via a foreign port, between points in the United States and certain of its island territories and possessions to U.S.-flag vessels that meet certain requirements, including that they are built in the United States and owned by U.S. Citizens (within the meaning of the Jones Act), and manned by predominantly U.S. citizen crews. During the past several years, interest groups have lobbied the U.S. Congress, and legislation has been introduced, to repeal certain provisions of the Jones Act to facilitate foreign-flag vessel competition for trades and cargoes currently reserved for U.S.-flag vessels under the Jones Act. We expect that continued efforts will be made to modify or repeal the Jones Act. In addition, the Secretary of the Department of Homeland Security may waive the requirement for using U.S.-flag vessels with coastwise endorsements in the U.S. coastwise trade in the interest of national defense. In addition, our advantage as a U.S. Citizen operator of Jones Act vessels could be eroded by periodic efforts and attempts by foreign interests to circumvent certain aspects of the Jones Act. In addition, maritime transportation services are currently excluded from the General Agreement on Trade in Services ("GATS") and are the subject of reservations by the United States in NAFTA, the United States-Mexico-Canada Agreement ("USMCA") and other international free trade agreements. If maritime cabotage services were included in the GATS, NAFTA, USMCA or other international trade agreements, or if the restrictions contained in the Jones Act were otherwise repealed, altered or waived, the transportation of cargo and passengers between U.S. ports could be opened to foreign-flag, foreign-built vessels or foreign-owned vessels. To the extent such foreign competition is permitted from vessels built in lower-cost shipyards with promotional foreign tax incentives or favorable tax regimes and crewed by non-U.S. Citizens with lower wages and benefits than U.S. citizens, such competition could have a material adverse effect on our business, financial position, results of operations and cash flows.

Our common stock is subject to restrictions on ownership by non-U.S. Citizens, which could require divestiture by non-U.S. Citizen stockholders and could have a negative impact on the transferability of our common stock, its liquidity and market value, and upon a change of control of the Company.

Certain of our operations are conducted in the U.S. coastwise trade and are governed by U.S. federal laws commonly known as the Jones Act. The Jones Act restricts the transportation of merchandise and passengers for hire by water or by land and water, either directly or via a foreign port, between points in the United States and certain of its island territories and possessions, to U.S.-flag vessels that meet certain requirements, including that they are built in the United States, owned and operated by U.S. Citizens (within the meaning of the Jones Act), and manned by predominantly U.S. Citizen crews. We could lose the privilege of owning and operating vessels in the U.S. coastwise trade and may become subject to penalties and risk seizure and forfeiture of our U.S.-flag vessels if non-U.S. Citizens were to own or control, in the aggregate, more than 25% of any class or series of our capital stock. Such loss would have a material adverse effect on our results of operations.

Our charter authorizes, with respect to any class or series of our capital stock, certain rules, policies and procedures, including procedures with respect to transfer of shares, to assist in monitoring and maintaining compliance with the Jones Act's U.S. citizenship requirements, which may have an adverse effect on holders of shares of our common stock.

In order to provide a reasonable margin for compliance with the Jones Act, the charter contains provisions that limit the aggregate percentage beneficial ownership by non-U.S. Citizens of any class or series of our capital stock (including the common stock) to 24% of the outstanding shares of each such class or series to ensure that ownership by non-U.S. Citizens will not exceed the maximum percentage permitted by the Jones Act (presently 25%).

The aggregate percentage of non-U.S. Citizen ownership of our outstanding common stock is expected to fluctuate based on daily trading, and may increase above the 24% maximum permitted percentage. At and during such times that the 24% permitted percentage of shares of common stock held by non-U.S. Citizens is reached, we will be unable to issue any

further shares of common stock to non-U.S. Citizens (including any shares issuable upon exercise of the warrants) or permit transfers of common stock to non-U.S. Citizens. Any issuance or transfer of shares in excess of such permitted percentage shall be ineffective against us, and neither we nor our transfer agent are required to register such purported issuance or transfer of shares or be required to recognize the purported transferee or owner as our stockholder for any purpose whatsoever except to exercise our remedies. Any such excess shares in the hands of a non-U.S. Citizen shall not have any voting or dividend rights. In addition, we, in our discretion, are entitled to redeem all or any portion of such shares most recently acquired (as determined by our Board of Directors in accordance with guidelines that are set forth in the charter), by non-U.S. Citizens, in excess of such maximum permitted percentage for such class or series at a redemption price based on a fair market value formula that is set forth in the charter, which is to be paid by the issuance of redemption warrants (the "Redemption Warrants") permitting the holders to receive shares of common stock in the future when the receipt thereof would not violate the charter at an exercise price of $0.01 per share. In the event that we determine that Redemption Warrants would be treated by the USCG as capital stock, or if we are unable to issue the Redemption Warrants for any other reason, we may redeem the excess shares with cash, promissory notes or a combination of both at the discretion of our board of directors.

As a result of these provisions, a purported stockholder who is a non-U.S. Citizen may not receive any return on its investment in any such excess shares it purportedly purchases or owns, as the case may be, and it may sustain a loss. Further, we may have to incur additional indebtedness, or use available cash (if any), to fund all or a portion of such redemption, in which case our financial condition may be materially weakened. The existence and enforcement of these requirements could have an adverse impact on the liquidity or market value of our equity securities in the event that U.S. Citizens were unable to transfer shares in the Company to non-U.S. Citizens. Furthermore, under certain circumstances, this ownership restriction could discourage, delay or prevent a change of control of the Company. So that we may monitor and maintain our compliance with the Jones Act, provisions in the charter permit us to require that owners of any shares of our capital stock provide confirmation of their citizenship. In the event that a person does not submit such documentation to us, those provisions provide us with certain remedies, including the suspension of voting, dividend and distribution rights and treatment of such person as a non-U.S. Citizen unless and until we receive the requested documentation confirming that such person is a U.S. Citizen. As a result of non-compliance with these provisions, an owner of the shares of our common stock may lose significant rights associated with those shares.

If, for any reason, we are unable to effect such a redemption when such ownership of shares by non-U.S. Citizens is in excess of 25% of the common stock, or otherwise prevent non-U.S. Citizens in the aggregate from owning shares in excess of 25% of any class or series of our capital stock, or we fail to exercise our redemption rights because we are unaware that such ownership exceeds such percentage, we will likely be unable to comply with the Jones Act and will likely be required by the applicable governmental authorities to suspend our operations in the U.S. coastwise trade. Any such actions by governmental authorities would have a material adverse effect on our business, financial position, results of operations and cash flows.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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ITEM 2. PROPERTIES

The following table describes our principal physical properties and facilities at December 31, 2019 owned or leased by us. We believe that our existing properties are in good condition and suitable for conducting our business.

Location	Segment	Function	Own/Lease
Beatty, Nevada	Environmental Svcs.	Waste treatment and landfill disposal	Lease
Robstown, Texas	Environmental Svcs.	Waste treatment, landfill disposal and recycling	Own
Grand View, Idaho	Environmental Svcs.	Waste treatment and landfill disposal	Own
Belleville, Michigan	Environmental Svcs.	Waste treatment and landfill disposal	Own
Blainville, Québec, Canada	Environmental Svcs.	Waste treatment and landfill disposal	Own/Lease
Kennedy, Texas	Environmental Svcs.	Landfill disposal	Own
Pecos County, Texas	Environmental Svcs.	Landfill disposal	Own
Reagan County, Texas	Environmental Svcs.	Landfill disposal	Own
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
Kenai, Alaska	Field & Industrial Svcs.	Field and industrial waste management	Lease
Anchorage, Alaska	Field & Industrial Svcs.	Field and industrial waste management	Lease
Williston, Vermont	Field & Industrial Svcs.	Field and industrial waste management	Lease
Portland, Maine	Field & Industrial Svcs.	Field and industrial waste management	Lease
Boise, Idaho	Corporate	Corporate Headquarters	Lease

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

The following table provides additional information for our 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, 2019.

Location	Total Acreage	Permitted Airspace (Cubic Yards)	Non-Permitted Airspace (Cubic Yards)	Estimated Life (Years)
Beatty, Nevada (1)	480	7,895,023	—	32
Robstown, Texas (2)	1,425	10,065,433	—	45
Grand View, Idaho (3)	1,411	10,113,264	18,100,000	212
Belleville, Michigan (4)	455	11,386,673	—	28
Blainville, Québec, Canada (5)	350	5,495,457	—	20
Karnes County, Texas (6)	382	6,492,000	—	13
Pecos County, Texas (7)	207	11,335,600	—	57
Reagan County, Texas (8)	645	10,926,977	—	109
Richland, Washington (9)	100	60,040	—	36
Total		73,770,467	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 of Nevada, 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 1,185 acres of adjacent land for future expansion. We also own 240 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 Karnes County, Texas facility, located in the Permian Basin on 135 acres owned by the Company approximately six miles southwest of Kennedy, Texas, began operations in February 2016. We own an additional 247 acres of adjacent land for future expansion if needed. The commercial disposal facility accepts energy-related waste only and is regulated by the RRC under a five-year permit cycle with renewal issued upon request provided no outstanding operational issues.

(7) Our Pecos County, Texas facility, located in the Permian Basin on 207 acres owned by the Company approximately 28 miles north of Fort Stockton, Texas, began operations in June 2019. The commercial disposal facility accepts energy-related waste only and is regulated by the RRC under a five-year permit cycle with renewal issued upon request provided no outstanding operational issues.

(8) Our Reagan County, Texas facility, located in the Permian Basin on 645 acres owned by the Company approximately 30 miles northwest of Big Lake, Texas, began operations in July 2019. The commercial disposal facility accepts energy-related waste only and is regulated by the RRC under a five-year permit cycle with renewal issued upon request provided no outstanding operational issues.

(9) 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.

We also own 640 acres in Andrews County, Texas, located in the Permian Basin approximately 25 miles west of Andrews, Texas. The site is permitted for approximately 11.5 million cubic yards of energy-related waste disposal, however, we have not constructed any landfill capacity at the site as of December 31, 2019. The site is regulated by the RRC under a five-year permit cycle with renewal issued upon request provided no outstanding operational issues.

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 noncompliance. 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.

In December 2010, National Response Corporation, a subsidiary of NRC acquired by the Company in the NRC Merger, was named as one of many "Dispersant Defendants" in multi-district litigation, arising out of the explosion of the BP Deepwater Horizon ("BP") oil rig, filed in the U.S. District Court for the Eastern District of Louisiana ("*In re Deepwater Horizon*" or the "MDL"). The claims against National Response Corporation, and other "Dispersant Defendants," were brought by workers and others who alleged injury arising from post-explosion clean–up efforts, including particularly the use of certain chemical dispersants. In January 2013, the Court approved a Medical Benefits Class Action Settlement, which, among other things, provided for a "class wide" settlement as well as a release of claims against Dispersant Defendants, including National Response Corporation. Further, National Response Corporation successfully moved the

District Court to dismiss all claims against it based on derivative immunity, as it was acting at the direction of the U.S. Government. In early 2018, BP began asserting an alleged contractual right of indemnity against National Response Corporation and others in post-settlement lawsuits brought by persons who had either chosen not to participate in the class-wide agreement or whose injuries were allegedly manifest after the period covered by the claim submission process. The Company has advised BP that it considers the attempt to bring National Response Corporation back into previously settled litigation to be improper and has moved for a declaratory judgment that it owes no indemnity or contribution to BP, raising various arguments, including BP's own actions and conduct over the preceding nine years with respect to these claims (including its failure to seek indemnity) and the resultant prejudice to National Response Corporation, BP's waiver of any indemnity, and the Court's prior finding that National Response Corporation is entitled to derivative immunity. In response, BP asserted counterclaims against National Response Corporation for a declaratory judgment that National Response Corporation must indemnify BP under certain circumstances and for unjust enrichment. National Response Corporation successfully moved to dismiss the unjust enrichment claim. The Court has also ordered the parties to file simultaneous judgment on the pleadings briefs in February 2020, and any oppositions by March 16, 2020. As such, the Company is currently unable to estimate the range of possible losses associated with this proceeding. However, the Company also believes that, were it deemed to have liability arising out of or related to BP's indemnity claims, such liability would be covered by an indemnity by SEACOR Holdings Inc., the former owner of National Response Corporation, in favor of National Response Corporation and its affiliates.

In January 2019, Kevin Sullivan, a driver for NRC from May 1, 2018 to August 22, 2018 filed a class action complaint against NRC in California Superior Court (*Kevin Sullivan et. Al. v. National Response Corp., NRC Environmental Services, Inc. and Paul Taveira et al.*) alleging the failure by the defendants to provide meal and rest breaks required by California law and requiring employees to work off the clock. Mr. Sullivan's complaint also asserted a claim under the California Labor Code Private Attorneys General Act ("PAGA"), which permits an employee to assert a claim for violations of certain California Labor Code provisions on behalf of all aggrieved employees to recover statutory penalties that could be recovered by the State of California. On April 17, 2019, NRC filed a motion to compel individual arbitration, strike Mr. Sullivan's class action claims and stay the PAGA claim pending the outcome of Mr. Sullivan's individual claim; the Court subsequently granted NRC's motion to compel. In response, Mr. Sullivan amended his complaint to dismiss the class claims without prejudice and proceed solely with the PAGA claim. Unlike class claims, PAGA claims cannot be waived by an employee's agreement to individual arbitration; therefore, the case is proceeding as a pure representative PAGA claim only, absent any individual or class claims against the Company or NRC. While the Company believes that Mr. Sullivan's claims lack merit, the Company is currently unable to estimate the range of possible losses associated with this proceeding.

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. In addition to initiating and conducting our own investigation into the incident, we fully cooperated with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. On January 10, 2020, we entered into a settlement agreement with OSHA settling a complaint made by OSHA relating to the incident for $50,000. On January 28, 2020, the Occupational Safety and Health Review Commission issued an order terminating the proceeding relating to such OSHA complaint. We have not otherwise 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.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

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

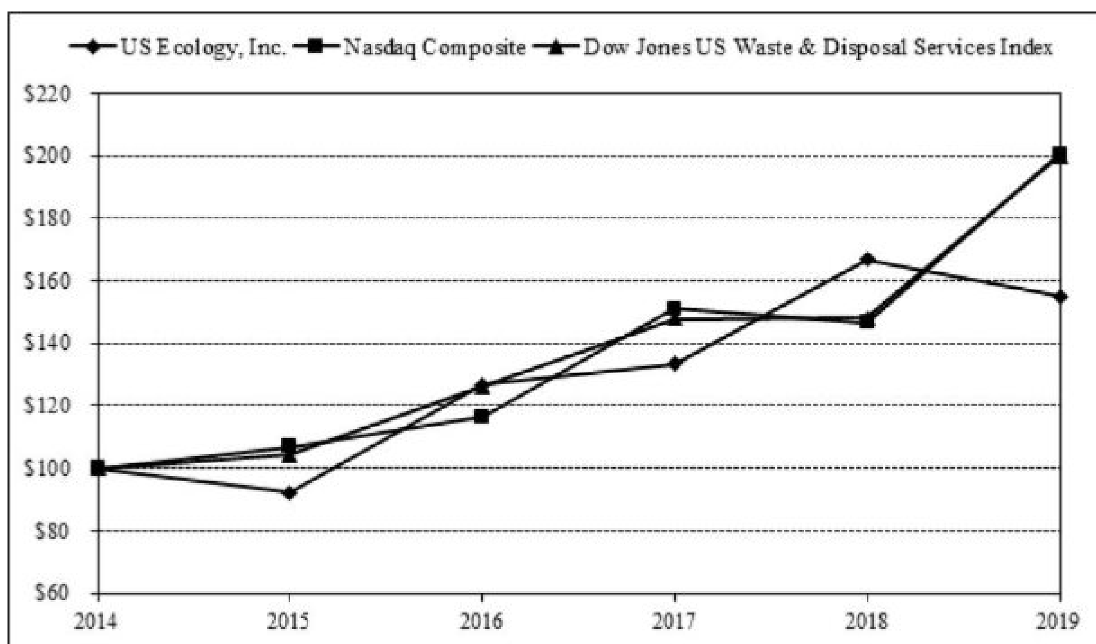
Common Stock

Our common stock is listed on the Nasdaq Global Select Market under the symbol ECOL and our warrants are listed on the Nasdaq Capital Market under the symbol ECOLW. As of January 22, 2020, there were approximately 17,857 beneficial owners of our common stock and one holder of record of our warrants.

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 2014 to the end of fiscal 2019. 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, 2014	$ 100.00	$ 100.00	$ 100.00
December 31, 2015	$ 92.27	$ 106.96	$ 104.19
December 31, 2016	$ 126.67	$ 116.45	$ 126.22
December 31, 2017	$ 133.32	$ 150.96	$ 147.78
December 31, 2018	$ 166.62	$ 146.67	$ 147.95
December 31, 2019	$ 154.99	$ 200.49	$ 199.87

(1) Total return assuming $100 invested on December 31, 2014 and reinvestment of dividends on the day they were paid.

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. 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. In addition, on December 30, 2019, the Company's Board of Directors authorized the repurchase of $25.0 million of the Company's outstanding warrants (such dollar amount considered in the aggregate with the dollar amount of shares of common stock repurchased by the Company, if any, under the Company's share repurchase program) as part of the Company's share repurchase program. Repurchases may be made from time to time in the open market or through privately negotiated transactions. The timing of any repurchases of common stock or warrants will be based upon prevailing market conditions and other factors. The Company may from time to time also consider other options for repurchasing some or all of its warrants, including but not limited to a tender offer for all of the outstanding warrants. The Company did not repurchase any shares of common stock under the repurchase program during the year ended December 31, 2019.

The following table summarizes the purchases of shares of our common stock during the year ended December 31, 2019:

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, 2019 (1)	14,462	$ 63.34	—	$ 25,000,000
February 1 to 28, 2019	—	—	—	25,000,000
March 1 to 31, 2019	—	—	—	25,000,000
April 1 to 30, 2019	—	—	—	25,000,000
May 1 to 31, 2019	—	—	—	25,000,000
June 1 to 30, 2019	—	—	—	25,000,000
July 1 to 31, 2019	—	—	—	25,000,000
August 1 to 31, 2019	—	—	—	25,000,000
September 1 to 30, 2019	—	—	—	25,000,000
October 1 to 31, 2019	—	—	—	25,000,000
November 1 to 30, 2019	—	—	—	25,000,000
December 1 to 31, 2019	—	—	—	25,000,000
Total	14,462	$ 63.34	—	$ 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.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

We did not engage in any unregistered sales of our securities during the years ended December 31, 2019, 2018 and 2017.

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	2019 (1)	2018	2017 (2)	2016	2015 (3)
Revenue	$ 685,509	$ 565,928	$ 504,042	$ 477,665	$ 563,070
Goodwill and intangible asset impairment charges	—	3,666	8,903	—	6,700
Operating income	68,711	74,088	59,758	70,029	71,631
Foreign currency gain (loss)	(733)	55	516	(138)	(2,196)
Income tax (benefit) expense	16,659	15,263	(6,395)	21,049	21,244
Net income	$ 33,140	$ 49,595	$ 49,365	$ 34,252	$ 25,611
Earnings per share—basic:	$ 1.41	$ 2.27	$ 2.27	$ 1.58	$ 1.18
Earnings per share—diluted:	$ 1.40	$ 2.25	$ 2.25	$ 1.57	$ 1.18
Shares used in earnings per share calculation:					
Basic	23,521	21,888	21,758	21,704	21,637
Diluted	23,749	22,047	21,902	21,789	21,733
Dividends paid per share	$ 0.72	$ 0.72	$ 0.72	$ 0.72	$ 0.72
Total assets	$ 2,231,244	$ 947,898	$ 802,076	$ 776,400	$ 771,987
Working capital (4)	$ 152,201	$ 111,436	$ 81,127	$ 52,774	$ 54,516
Long-term debt	$ 765,842	$ 364,000	$ 277,000	$ 277,362	$ 293,740
Stockholders' equity	$ 1,011,380	$ 359,217	$ 324,077	$ 280,024	$ 256,135
Adjusted EBITDA (5)	$ 149,366	$ 125,080	$ 112,997	$ 112,769	$ 127,485

(1) 2019 financial data reflects the NRC Merger on November 1, 2019.

(2) 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.

(3) 2015 financial data reflects the divestiture of Allstate on November 1, 2015.

(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 property and equipment impairment charges, non-cash goodwill and intangible asset impairment charges, gain on property insurance recoveries, business development and integration expenses and other income/expense. In 2019, we updated our Adjusted EBITDA definition to include adjustments for business development and integration expenses and gain on property insurance recoveries. Throughout this Annual Report on Form 10-K, our Adjusted EBITDA results for all periods presented have been recast to reflect these adjustments. 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 is a leading provider of environmental services to commercial and governmental entities. The Company addresses the complex waste management and response needs of its customers, offering treatment, disposal and recycling of hazardous, non-hazardous and radioactive waste, leading emergency response and standby services, and a wide range of complementary field and industrial services. US Ecology's focus on safety, environmental compliance and best-in-class customer service enables us to effectively meet the needs of our customers and to build long-lasting relationships.

We have a network of fixed facilities and service centers operating primarily in the United States, Canada, the United Kingdom and Mexico. Our fixed facilities include five RCRA subtitle C hazardous waste landfills, three landfills serving waste streams regulated by the RRC and one LLRW landfill. We also have various other TSDF facilities located throughout the United States. 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.

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 specialty material management services including transportation, recycling, treatment and disposal of hazardous, non-hazardous and radioactive waste at Company owned or operated landfill, wastewater, deep-well injection and other treatment facilities.

Field & Industrial Services—This segment provides specialty field services and total waste management solutions to commercial and industrial facilities and to government entities through our 10-day transfer facilities and at customer sites, both domestic and international. Specialty field services include standby services, emergency response, industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, and other services. Total waste management services include on-site management, waste characterization, transportation and disposal of non- hazardous and hazardous waste.

In order to provide insight into the underlying drivers of our waste volumes and related 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, 2019 and 2018 were as follows:

	% of Treatment and Disposal Revenue (1)(2) for the Year Ended December 31,	
Generator Industry	**2019**	**2018**
Chemical Manufacturing	17%	17%
Metal Manufacturing	16%	16%
Broker / TSDF	13%	13%
General Manufacturing	12%	12%
Government	9%	7%
Refining	9%	11%
Transportation	5%	3%
Utilities	3%	3%
Mining, Exploration and Production	2%	2%
Waste Management & Remediation	2%	3%
Other (3)	12%	13%

(1) Excludes all transportation service revenue.

(2) Excludes NRC which was acquired on November 1, 2019.

(3) 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 2019, Base Business revenue growth, excluding NRC, was up 8% compared to 2018. Base Business revenue was approximately 78% of total 2019 T&D revenue, excluding NRC, down from 80% in 2018. Our business is highly competitive and no assurance can be given that we will maintain these revenue levels or increase our market share.

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, 2019, approximately 22% of our T&D revenue, excluding NRC, 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.

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, 2019, we derived $589.1 million, or 86%, of our revenue in the United States, $88.5 million, or 13%, of our revenue in Canada, $5.1 million, or 1%, of our revenue in the Europe, Middle East and Africa (“EMEA”) region, and less than 1% of our revenue from other international regions. 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. Additional information about the geographical areas in which our revenues are derived and in which our assets 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:

2019 Events

NRC Merger: On November 1, 2019, the Company completed its merger with NRC, a leader in comprehensive environmental, compliance and waste management services to the marine and rail transportation, general industrial and energy industries. The addition of NRC's substantial service network strengthens and expands US Ecology's suite of environmental services, including oil and gas exploration and production landfill disposal capabilities, and provides expanded opportunities to establish US Ecology as a leader in standby and emergency response services. The total merger consideration was $1,008.2 million, net of cash acquired, and was funded through the issuance of equity and with proceeds under a new $450.0 million seven-year term loan. The NRC Merger affects the comparability of 2019 with previous years, including as follows:

- Revenue and operating losses from the legacy NRC business for the period from November 1, 2019 to December 31, 2019 included in the Company's consolidated statements of operations for the year ended December 31, 2019 were $70.2 million and $9.1 million, respectively.

- We incurred $24.4 million of business development expenses during the year ended December 31, 2019 in connection with the NRC Merger, primarily for due diligence, transaction expenses and business integration purposes.

- We recorded $303.6 million of intangible assets and $548.5 million of goodwill on our Consolidated Balance Sheet as a result of the NRC Merger. Acquired finite-lived intangibles will be amortized over their estimated useful life ranging from two to 16 years. Goodwill and indefinite-lived intangibles are tested for impairment at least annually.

Acquisition of W.I.S.E. Environmental Solutions Inc. (now known as US Ecology Sarnia): On August 1, 2019, the Company acquired US Ecology Sarnia, an equipment rental and waste services company based in Sarnia, Ontario, Canada. The total purchase price was 23.5 million Canadian dollars, which translated to $17.9 million at the time of the transaction. We recorded $6.2 million of intangible assets and $7.7 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. The acquisition of US Ecology Sarnia was not material to our consolidated financial position or results of operations.

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. The facility resumed limited operations in February 2019 and regained additional capabilities throughout the remainder of 2019. We expect the completion of the construction of a new treatment building and resumption of full capabilities in late 2020. In addition to initiating and conducting our own investigation into the incident, we fully cooperated with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. On January 10, 2020, we entered into a settlement agreement with OSHA settling a complaint made by OSHA relating to the incident for $50,000. On January 28, 2020, the Occupational Safety and Health Review Commission issued an order terminating the proceeding relating to such OSHA complaint. We have not otherwise 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.

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 $87.2 million. We recorded $66.5 million of intangible assets and $16.4 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. 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 13 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.

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.

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 charge of $5.5 million to interest expense in 2017.

Results of Operations

Our operating results and percentage of revenues for the years ended December 31, 2019, 2018 and 2017 were as follows:

$s in thousands	Year Ended December 31, 2019	%	2018	%	2017	%	2019 vs. 2018 $ Change	% Change	2018 vs. 2017 $ Change	% Change
Revenue										
Environmental Services	$ 453,107	66 %	$ 400,678	71 %	$ 366,308	73 %	$ 52,429	13 %	$ 34,370	9 %
Field & Industrial Services	232,402	34 %	165,250	29 %	137,734	27 %	67,152	41 %	27,516	20 %
Total	685,509	100 %	565,928	100 %	504,042	100 %	119,581	21 %	61,886	12 %
Gross Profit										
Environmental Services	174,827	39 %	147,475	37 %	134,968	37 %	27,352	19 %	12,507	9 %
Field & Industrial Services	35,007	15 %	22,619	14 %	18,159	13 %	12,388	55 %	4,460	25 %
Total	209,834	31 %	170,094	30 %	153,127	30 %	39,740	23 %	16,967	11 %
Selling, General & Administrative Expenses										
Environmental Services	19,671	4 %	22,542	6 %	24,185	7 %	(2,871)	(13)%	(1,643)	(7)%
Field & Industrial Services	23,774	10 %	10,742	7 %	9,278	7 %	13,032	121 %	1,464	16 %
Corporate	97,678	n/m	59,056	n/m	51,003	n/m	38,622	65 %	8,053	16 %
Total	141,123	21 %	92,340	16 %	84,466	17 %	48,783	53 %	7,874	9 %
Adjusted EBITDA										
Environmental Services	187,759	41 %	160,179	40 %	145,058	40 %	27,580	17 %	15,121	10 %
Field & Industrial Services	26,707	11 %	18,457	11 %	14,709	11 %	8,250	45 %	3,748	25 %
Corporate	(65,100)	n/m	(53,556)	n/m	(46,770)	n/m	(11,544)	22 %	(6,786)	15 %
Total	$ 149,366	22 %	$ 125,080	22 %	$ 112,997	22 %	$ 24,286	19 %	$ 12,083	11 %

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 property and equipment impairment charges, non-cash goodwill and intangible asset impairment charges, gain on property insurance recoveries, business development and integration expenses and other income/expense. In 2019, we updated our Adjusted EBITDA definition to include adjustments for business development and integration expenses and gain on property insurance recoveries. Throughout this Annual Report on Form 10-K, our Adjusted EBITDA results for all periods presented have been recast to reflect these adjustments. The reconciliation of Net income to Adjusted EBITDA for the years ended December 31, 2019, 2018 and 2017 is as follows:

$s in thousands	Year Ended December 31, 2019	2018	2017	2019 vs. 2018 $ Change	% Change	2018 vs. 2017 $ Change	% Change
Net income	$ 33,140	$ 49,595	$ 49,365	$ (16,455)	(33)%	$ 230	0 %
Income tax expense (benefit)	16,659	15,263	(6,395)	1,396	9 %	21,658	(339)%
Interest expense	19,239	12,130	18,157	7,109	59 %	(6,027)	(33)%
Interest income	(605)	(215)	(62)	(390)	181 %	(153)	247 %
Foreign currency (gain) loss	733	(55)	(516)	788	(1,433)%	461	(89)%
Other income	(455)	(2,630)	(791)	2,175	(83)%	(1,839)	232 %
Property and equipment impairment charges	25	—	—	25	n/m	—	n/m
Goodwill and intangible asset impairment charges	—	3,666	8,903	(3,666)	(100)%	(5,237)	(59)%
Depreciation and amortization of plant and equipment	41,423	29,207	28,302	12,216	42 %	905	3 %
Amortization of intangible assets	15,491	9,645	9,888	5,846	61 %	(243)	(2)%
Share-based compensation	5,544	4,366	3,933	1,178	27 %	433	11 %
Accretion and non-cash adjustment of closure & post-closure liabilities	4,388	3,707	3,026	681	18 %	681	23 %
Gain on property insurance recoveries	(12,366)	(347)	(1,313)	(12,019)	3,464 %	966	(74)%
Business development and integration expenses	26,150	748	500	25,402	3,396 %	248	50 %
Adjusted EBITDA	$ 149,366	$ 125,080	$ 112,997	$ 24,286	19 %	$ 12,083	11 %

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 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;
- 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; and
- Adjusted EBITDA does not reflect our business development and integration expenses.

2019 Compared to 2018

Revenue

Total revenue increased 21% to $685.5 million in 2019, compared with $565.9 million in 2018. The acquired NRC operations contributed $70.2 million of total revenue subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, total revenue increased 9% to $615.3 million in 2019, compared with $565.9 million in 2018.

Environmental Services

Environmental Services segment revenue increased 13% to $453.1 million in 2019, compared to $400.7 million in 2018. The acquired NRC operations contributed $12.5 million of segment revenue subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment revenue increased 10% to $440.6 million in 2019, compared with $400.7 million in 2018. T&D revenue (excluding NRC) increased 12% in 2019 compared to 2018, primarily as a result of a 8% increase in Base Business revenue and a 19% increase in project-based Event Business revenue. 2019 transportation and logistics service revenue (excluding NRC) was consistent with 2018. Tons of waste disposed of or processed (excluding NRC) increased 34% in 2019 compared to 2018, primarily reflecting incremental volumes disposed at our Winnie, Texas deep-well facility that was acquired in the fourth quarter of 2018 as well as a 6% increase in tons of waste disposed of or processed at our other facilities (excluding NRC) in 2019 compared to 2018.

T&D revenue (excluding NRC) from recurring Base Business waste generators increased 8% in 2019 compared to 2018 and comprised 78% 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 broker/TSDF, transportation, "Other," general manufacturing and government industry groups, partially offset by lower T&D revenue from the refining industry group.

T&D revenue (excluding NRC) from Event Business waste generators increased 19% in 2019 compared to 2018 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 government, transportation, chemical manufacturing and metal manufacturing industry groups, partially offset by lower T&D revenue from the “Other” industry group.

The following table summarizes combined Base Business and Event Business T&D revenue growth (excluding NRC), within the Environmental Services segment, by waste generator industry for 2019 compared to 2018:

	T&D Revenue Growth 2019 vs. 2018
Transportation	110%
Government	42%
Mining and E&P	19%
Broker / TSDF	12%
Metal Manufacturing	11%
Chemical Manufacturing	9%
General Manufacturing	5%
Utilities	1%
Other	-2%
Refining	-6%
Waste Management & Remediation	-25%

Field & Industrial Services

Field & Industrial Services segment revenue increased 41% to $232.4 million in 2019 compared with $165.3 million in 2018. The acquired NRC operations contributed $57.7 million of segment revenue subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment revenue increased 6% to $174.7 million in 2019, compared with $165.3 million in 2018. The increase in Field & Industrial Services segment revenue (excluding NRC) is primarily attributable to higher Transportation and Logistics revenues, growth in our Emergency Response business line primarily as a result of our acquisition of ES&H Dallas in the third quarter of 2018 and higher revenues from our Small Quantity Generation business line, partially offset by lower revenues from our Total Waste Management and Industrial Services business lines.

Gross Profit

Total gross profit increased 23% to $209.8 million in 2019, up from $170.1 million in 2018. Total gross margin was 31% in 2019 compared with 30% in 2018. The acquired NRC operations contributed $14.0 million of total gross profit subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, total gross profit increased 15% to $195.8 million in 2019, compared with $170.1 million in 2018. Excluding NRC operations, total gross margin was 32% in 2019 compared with 30% in 2018.

Environmental Services

Environmental Services segment gross profit increased 19% to $174.8 million in 2019, up from $147.5 million in 2018. Total segment gross margin was 39% in 2019 compared with 37% in 2018. The acquired NRC operations contributed $3.8 million of segment gross profit subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment gross profit increased 16% to $171.0 million in 2019, compared with $147.5 million in 2018. Environmental Services segment gross profit (excluding NRC) in 2019 includes $7.0 million in business interruption insurance recoveries for lost profits related to hurricane damage at our Robstown, Texas facility in 2017 and the incident at our Grand View, Idaho facility in the fourth quarter of 2018. Excluding NRC operations, segment gross margin was 39% in 2019 compared with 37% in 2018. T&D gross margin (excluding NRC) was 45% for 2019 compared with 42% for 2018.

Field & Industrial Services

Field & Industrial Services segment gross profit increased 55% to $35.0 million in 2019, up from $22.6 million in 2018. Total segment gross margin was 15% for 2019 compared with 14% for 2018. The acquired NRC operations contributed $10.2 million of segment gross profit subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment gross profit increased 10% to $24.8 million in 2019, compared with $22.6 million in 2018. Excluding NRC operations, segment gross margin was 14% in both 2019 and 2018.

Selling, General and Administrative Expenses ("SG&A")

Total SG&A increased to $141.1 million, or 21% of total revenue, in 2019 compared with $92.3 million, or 16% of total revenue, in 2018. The acquired NRC operations contributed $23.1 million of SG&A subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, total SG&A increased to $118.0 million, or 19% of total revenue, in 2019 compared with $92.3 million, or 16% of total revenue, in 2018.

Environmental Services

Environmental Services segment SG&A decreased 13% to $19.7 million, or 4% of segment revenue, in 2019 compared with $22.5 million, or 6% of segment revenue, in 2018. The acquired NRC operations contributed $3.6 million of segment SG&A subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment SG&A decreased to $16.1 million, or 4% of segment revenue, in 2019 compared with $22.5 million, or 6% of segment revenue, in 2018. The decrease in Environmental Services segment SG&A (excluding NRC) primarily reflects property insurance recoveries of $12.4 million recognized in 2019 related to the incident at our Grand View, Idaho facility in the fourth quarter of 2018, partially offset by higher insurance costs, higher intangible asset amortization expense and higher labor and incentive compensation costs.

Field & Industrial Services

Field & Industrial Services segment SG&A increased 121% to $23.8 million, or 10% of segment revenue, in 2019 compared with $10.7 million, or 7% of segment revenue, in 2018. The acquired NRC operations contributed $8.6 million of segment SG&A subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, segment SG&A increased to $15.2 million, or 9% of segment revenue, in 2019 compared with $10.7 million, or 7% of segment revenue, in 2018. The increase in Field & Industrial Services segment SG&A (excluding NRC) primarily reflects incremental costs associated with new facilities.

Corporate

Corporate SG&A was $97.7 million, or 14% of total revenue, in 2019 compared with $59.1 million, or 10% of total revenue, in 2018. The acquired NRC operations contributed $10.9 million of Corporate SG&A subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, Corporate SG&A increased to $86.8 million, or 14% of total revenue, in 2019 compared with $59.1 million, or 10% of total revenue, in 2018. The increase in Corporate SG&A (excluding NRC) primarily reflects higher business development and integration expenses (including $17.0 million of expenses related to the NRC Merger), higher labor and incentive compensation costs and higher information technology related expenses in 2019 compared to 2018.

Components of Adjusted EBITDA

Income tax expense

Our effective income tax rate for 2019 was 33.5% compared to 23.5% in 2018. The increase was primarily the result of an increase in non-deductible transaction expenses incurred as a result of the NRC Merger, and the implementation of certain tax planning strategies in 2018 that resulted in a one-time reduction to the 2018 effective income tax rate.

Interest expense

Interest expense was $19.2 million in 2019 compared with $12.1 million in 2018. The increase is the result of higher outstanding debt levels primarily attributable to our new $450.0 million Term Loan used to refinance the indebtedness of NRC and pay transaction expenses incurred in connection with the NRC Merger. 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 about the Company’s debt.

Foreign currency gain (loss)

We recognized a $733,000 non-cash foreign currency loss in 2019 compared with a $55,000 non-cash foreign currency gain in 2018. Foreign currency gains and losses reflect changes in business activity conducted in a currency other than the USD, our functional currency. Additionally, we established intercompany loans with certain of our Canadian subsidiaries, whose functional currency is the Canadian dollar (“CAD”) 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, 2019, we had $31.5 million of intercompany loans subject to currency revaluation.

Other income

Other income was $455,000 in 2019 compared with other income of $2.6 million in 2018. Other income for 2018 includes a $2.0 million gain on the issuance of a property easement on a portion of unutilized Company-owned land at one of our operating facilities.

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. 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 on these impairment charges.

Depreciation and amortization of plant and equipment

Depreciation and amortization expense increased 42% to $41.4 million in 2019 compared with $29.2 million in 2018. The acquired NRC operations contributed $5.5 million of depreciation and amortization expense subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, depreciation and amortization expense was $35.9 million in 2019 compared with $29.2 million in 2018, primarily reflecting additional depreciation expense on assets placed in service, including assets associated with the ES&H Dallas, Winnie and US Ecology Sarnia acquisitions.

Amortization of intangibles

Intangible assets amortization expense increased 61% to $15.5 million in 2019 compared with $9.6 million in 2018. The acquired NRC operations contributed $3.9 million of intangible assets amortization expense subsequent to the NRC Merger on November 1, 2019. Excluding NRC operations, intangible assets amortization expense was $11.6 million in 2019 compared with $9.6 million in 2018, primarily reflecting additional amortization of intangible assets recorded as a result of ES&H Dallas, Winnie and US Ecology Sarnia acquisitions.

Share-based compensation

Share-based compensation expense increased 27% to $5.5 million in 2019, compared with $4.4 million 2018 as a result of an increase in equity-based awards granted to employees and incremental post-merger share-based compensation of $605,000 associated with the replacement restricted stock units issued in connection with NRC Merger.

Accretion and non-cash adjustment of closure and post-closure liabilities

Accretion and non-cash adjustment of closure and post-closure liabilities increased to $4.4 million in 2019 compared with $3.7 million in 2018, primarily reflecting higher favorable non-cash adjustments to post-closure liabilities recorded in 2018 due to changes in cost estimates and timing associated with closed sites.

Gain on property insurance recoveries

The Company recognized gains on property-related insurance recoveries of $12.4 million in 2019 and $347,000 in 2018 related to the incident at our Grand View, Idaho facility in the fourth quarter of 2018.

Business development and integration expenses

Business development and integration expenses increased to $26.2 million in 2019, compared to $748,000 in 2018, primarily attributable to $24.4 million of pre-acquisition business development costs and post-acquisition integration expenses associated with the NRC Merger in 2019. The remaining increase is attributable to a larger number of business development projects in 2019 compared to 2018.

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.

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

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 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 non-cash charge of $5.5 million to interest expense in 2017 related to the refinancing of Predecessor US Ecology's credit agreement with Wells Fargo, dated June 17, 2014 (the "2014 Credit Agreement"). The remaining decrease is attributable to a lower effective interest rate under our the 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 as their functional currency. Additionally, we established intercompany loans with our Canadian subsidiaries, whose functional currency is the CAD, 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.

Liquidity and Capital Resources

Our primary sources of liquidity are cash and cash equivalents, cash generated from operations and borrowings under the Credit Agreement. At December 31, 2019, we had $41.3 million in unrestricted cash and cash equivalents immediately available and $166.3 million of borrowing capacity available under our Revolving Credit Facility. 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 Credit Agreement provide additional sources of liquidity should they be required.

Operating Activities. In 2019, net cash provided by operating activities was $79.6 million. This primarily reflects net income of $33.1 million, non-cash depreciation, amortization and accretion of $61.3 million, share-based compensation and business development and integration expenses of $9.3 million, an increase in accrued salaries and benefits of $8.3 million and deferred income taxes of $6.6 million, partially offset by a $12.4 million gain on insurance proceeds from damaged property and equipment, a decrease in accounts payable and accrued liabilities of $10.7 million, an increase in accounts receivable of $9.4 million and an increase in income taxes receivable of $4.2 million. Impacts on net income are due to the factors discussed above under “Results of Operations.” The increase in accrued salaries and benefits is primarily attributable to higher employee-incentive plan accruals and higher employee-termination benefits accruals associated with the NRC Merger in 2019. The decrease in accounts payable and accrued liabilities is primarily attributable to the timing of payments to vendors for products and services. We recognized property-related insurance recoveries in 2019 related to the incident at our Grand View, Idaho facility in the fourth quarter of 2018. The increase in receivables is primarily attributable to the timing of customer payments. The change in income taxes receivable and deferred income taxes is primarily attributable to the timing of income tax payments as well as the Company’s ability to use NRC’s tax attributes to offset cash taxes for 2019.

We calculate days sales outstanding (“DSO”) as a rolling four quarter average of our net accounts receivable divided by our quarterly revenue. In the fourth quarter of 2019, we modified our DSO calculation methodology to exclude non-trade receivables from our net accounts receivable balance. Our net accounts receivable balance for the DSO calculation historically included trade accounts receivable, net of allowance for doubtful accounts, unbilled accounts receivable and other non-trade receivables, adjusted for changes in deferred revenue. Under this modified method, our DSO as of December 31, 2019, excluding NRC operations, was 80 days as compared to 74 days as of December 31, 2018. Under our historical method, our DSO as of December 31, 2019, excluding NRC operations, was 86 days as compared to 77 days as of December 31, 2018.

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.

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.

Investing Activities. In 2019, net cash used in investing activities was $455.7 million, primarily used to refinance the indebtedness of NRC and pay transaction expenses incurred in connection with the NRC Merger in the aggregate amount of $381.7 million, net of cash acquired, capital expenditures of $58.1 million, the acquisition of US Ecology Sarnia for $17.9 million, a $7.9 million investment in the preferred stock of a privately held company and a $4.0 million payment of a contingent consideration liability acquired in connection with the NRC Merger, partially offset by property insurance proceeds of $12.7 million related to the incident at our Grand View, Idaho facility in the fourth quarter of 2018. Significant capital projects included construction of additional disposal capacity at our Belleville, Michigan; Robstown, Texas; and Blainville, Québec, Canada facilities, as well as equipment purchases and infrastructure upgrades at our corporate and operating facilities.

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.

Financing Activities. During 2019, net cash provided by financing activities was $384.4 million, consisting primarily of $448.9 million of borrowings, net of original issue discount, under the new Term Loan used primarily to refinance the indebtedness of NRC and pay transaction expenses incurred in connection with the NRC Merger and $43.0 million of Revolving Credit Facility borrowings primarily used for the payment of NRC Merger-related expenses and to fund the purchase of US Ecology Sarnia, partially offset by $80.0 million of repayments of outstanding Revolving Credit Facility borrowings, $15.9 million of dividend payments to our stockholders and $9.4 million of deferred financing costs paid in connection with the amendment of the Credit Agreement and the issuance of the new Term Loan.

During 2018, net cash provided by financing activities was $72.9 million, consisting primarily of $87.0 million in proceeds under the 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 Credit Agreement, $4.0 million of subsequent repayments of long-term debt under the Credit Agreement, $15.7 million of dividend payments to our stockholders, $3.0 million of deferred financing costs associated with the Credit Agreement and net payment activity on the Company's short-term borrowings of $2.2 million.

Credit Facility

On April 18, 2017, Predecessor US Ecology, a wholly-owned subsidiary of the Company, entered into a new senior secured credit agreement (the "Credit Agreement") with 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 Credit Agreement also contains an accordion feature whereby Predecessor US Ecology 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 described below, the Credit Agreement was amended in November 2019 in connection with the NRC Merger. In addition, as a result of the consummation of the NRC Merger, the borrower under the Credit Facility is Predecessor US Ecology, a wholly-owned subsidiary of the Company. In connection with Predecessor US Ecology's entry into the Credit Agreement, Predecessor US Ecology terminated 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. Predecessor US Ecology 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 non-cash charge of $5.5 million to interest expense in 2017.

During the year ended December 31, 2019, the effective interest rate on the Revolving Credit Facility, after giving effect to the impact of our interest rate swap and the amortization of the loan discount and debt issuance costs, was 3.98%. Interest only payments are due either quarterly or on the last day of any interest period, as applicable. In October 2014, Predecessor US Ecology entered into an interest rate swap agreement, effectively fixing the interest rate on $150.0 million, or 46%, of the Revolving Credit Facility borrowings as of December 31, 2019.

Predecessor US Ecology 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 Predecessor US Ecology's

total net leverage ratio (as defined in the Credit Agreement). The maximum letter of credit capacity under the Revolving Credit Facility is $75.0 million and the 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, 2019, there were $327.0 million of borrowings outstanding on the Revolving Credit Facility. These borrowings are due on the revolving credit maturity date (as defined in the Credit Agreement) and presented as long-term debt in the consolidated balance sheets.

Predecessor US Ecology 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 $40.0 million swingline loan sublimit under the Revolving Credit Facility. Predecessor US Ecology’s revolving credit loans outstanding under the Revolving Credit Facility are not subject to repayment through the Sweep Arrangement. As of December 31, 2019, there were no amounts outstanding subject to the Sweep Arrangement.

As of December 31, 2019, the availability under the Revolving Credit Facility was $166.3 million with $6.7 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.

Amendments to the Credit Agreement

On August 6, 2019, Predecessor US Ecology entered into the first amendment (the “First Amendment”) to the Credit Agreement, by and among Predecessor US Ecology, the subsidiaries of Predecessor US Ecology party thereto, the lenders referred to therein and Wells Fargo, as issuing lender, swingline lender and administrative agent. Effective November 1, 2019, the First Amendment, among other things, extended the expiration of the Revolving Credit Facility to November 1, 2024, permitted the issuance of a $400.0 million incremental term loan to be used to refinance the indebtedness of NRC and pay related transaction expenses in connection with the NRC Merger, modified the accordion feature allowing Predecessor US Ecology to request up to the greater of (x) $250.0 million and (y) 100% of consolidated EBITDA plus certain additional amounts, increased the sublimit for the issuance of swingline loans to $40.0 million and increased the maximum consolidated total net leverage ratio to 4.00 to 1.00.

On November 1, 2019, Predecessor US Ecology entered into the lender joinder agreement and second amendment (the “Second Amendment”) to the Credit Agreement. Effective November 1, 2019, the Second Amendment, among other things, amended the Credit Agreement to increase the capacity for incremental term loans by $50.0 million and provided for Wells Fargo lending $450.0 million in incremental term loans to Predecessor US Ecology to pay off the existing debt of NRC in connection with the NRC Merger, to pay certain fees, costs and expenses incurred in connection with the NRC Merger and to repay outstanding borrowings under the Revolving Credit Facility. The seven-year incremental term loan matures November 1, 2026, requires principal repayment of 1% annually, and bears interest at LIBOR plus 2.25% or a base rate plus 1.25% (with a step-up to LIBOR plus 2.50% or a base rate plus 1.50% in the event that US Ecology credit ratings are not BB (with a stable or better outlook) or better from S&P and Ba2 (with a stable or better outlook) or better from Moody’s). The effective interest rate on the term loan, including the impact of the amortization of debt issuance costs, was 4.45% from the issue date through December 31, 2019.

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.

Contractual Obligations and Guarantees

Contractual Obligations

US Ecology's contractual obligations at December 31, 2019 become due as follows:

	Payments Due by Period				
$s in thousands	**Total**	**2020**	**2021-2022**	**2023-2024**	**Thereafter**
Closure and post-closure obligations (1)	$ 320,323	$ 2,207	$ 21,376	$ 7,994	$ 288,746
Credit agreement obligations (2)	777,000	4,500	9,000	336,000	427,500
Interest expense (3)	176,102	29,874	60,623	54,535	31,070
Total contractual obligations (4)	$ 1,273,425	$ 36,581	$ 90,999	$ 398,529	$ 747,316

(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, 2019, there were $327.0 million of revolving credit loans outstanding on the Revolving Credit Facility. These revolving credit loans are due upon the earliest to occur of (a) November 1, 2024 (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 Credit Agreement, as amended) by us, and (c) the date of termination of the revolving credit commitment. At December 31, 2019 there were $450.0 million of Term Loan borrowings outstanding. The Term Loan matures on November 1, 2026 and requires principal repayment of 1% annually.

(3) Interest expense has been calculated using the interest rate of 3.20% in effect at December 31, 2019 on the unhedged variable rate portion of the Revolving Credit Facility borrowings, 3.67% on the fixed rate hedged portion of the Revolving Credit Facility borrowings and 4.20% on Term Loan borrowings. The interest expense calculation reflects assumed payments on the Revolving Credit Facility and the Term Loan 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 $247,000, such amounts have not been included 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 trust 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.

We estimate that our undiscounted future closure and post-closure costs for all facilities was approximately $320.3 million at December 31, 2019, 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, 2019. 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, 2019, our weighted-average credit-adjusted risk-free interest rate was 5.9%. For financial reporting purposes, our recorded closure and post-closure obligations were $86.4 million and $78.4 million as of December 31, 2019 and 2018, respectively.

Through December 31, 2019, 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. As of December 31, 2019, we had provided collateral of $5.1 million in funded trust agreements, $23.1 million in surety bonds, issued $3.6 million in letters of credit for financial assurance and have insurance policies of approximately $103.5 million for closure and post-closure obligations at covered U.S. operating and non-operating facilities. Cash held in funded trust agreements for our closure and post-closure obligations is 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, 2019 we had $775,000 in commercial surety bonds dedicated for closure obligations. These bonds were renewed in November and December 2019 and expire in November and December 2020. 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 weather-related reduced

construction and business activities 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. Additionally, we have customers that pay annual retainer fees, primarily for our standby services, under long-term or evergreen contracts. Such retainer fees are recognized over time as the services are 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 WUTC, which approves our rates for disposal of 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 2019 and is effective until December 31, 2025.

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 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, 2019 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, 2019 was approximately 5.9%. Final closure and post-closure obligations are currently estimated as being paid through the year 2105. During 2019 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 $221,000 in 2019.

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 $18.3 million. A hypothetical 10% increase in our cost estimates would increase our closure/post-closure obligation by $8.0 million.

Goodwill and Intangible Assets

Goodwill

As of December 31, 2019, the Company's goodwill balance was $767.0 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 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, 2019, we had 14 reporting units, nine 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.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2019 indicated that the fair value of each of our reporting units was in excess of its respective carrying value.

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, 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. 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 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.

The results of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2019 indicated no impairment charges were required.

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, the stockholders of Predecessor US Ecology approved the Omnibus Incentive Plan (as amended, "Omnibus Plan"), which was approved by Predecessor US Ecology's Board of Directors on April 7, 2015. In connection with the closing of the NRC Merger, the Company assumed the Omnibus Plan by adopting the Amended and Restated US Ecology, Inc. Omnibus Incentive Plan for the purposes of issuing replacement awards to award recipients under the Omnibus Plan pursuant to the Merger Agreement, and for the issuance of additional awards in the future.

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.

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, 2019, 725,966 shares of common stock remain available for grant under the Omnibus Plan.

Subsequent to the approval of the Omnibus Plan by Predecessor US Ecology in May 2015, we stopped granting equity awards under our 2008 Stock Option Incentive Plan (the "2008 Stock Option Plan"). However, in connection with the closing of the NRC Merger, the Company assumed the 2008 Stock Option Plan for the purpose of issuing replacement awards to award recipients thereunder and will remain in effect solely for the settlement of awards granted under such plan. No shares that are reserved but unissued under the 2008 Stock Option Plan or that are outstanding under the 2008 Stock Option Plan and reacquired by the Company for any reason will be available for issuance under the Omnibus Plan.

In addition, in connection with the closing of the NRC Merger, the Company assumed the NRC Group Holdings Corp. 2018 Equity Incentive Plan previously maintained by NRC by adopting the Amended and Restated US Ecology, Inc. 2018 Equity and Incentive Compensation Plan. Like the 2008 Stock Option Plan, the NRC Group Holdings Corp. 2018 Equity Incentive Plan was assumed by the Company solely for the purpose of issuing replacement awards to award recipients pursuant to the Merger Agreement, and no future grants may be made under the 2018 Equity and Incentive Compensation Plan.

As of December 31, 2019, we have performance share units ("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 in 2018 and 2017. The actual number of 2018 and 2017 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. The total number of PSUs each participant is eligible to earn ranges from 0% to 300% of the target number of PSUs granted in 2019. The actual number of 2019 PSUs that will vest and be settled in shares is determined based on achievement of certain Company financial performance metrics and total stockholder return relative to a set of peer companies, over a three-year performance period. 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 2019, 2018 and 2017.

As of December 31, 2019, we have stock option awards outstanding under the 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 2019, 2018 and 2017. 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.

Income Taxes

We account for income taxes using an asset and liability method, which requires the recognition of taxes payable or refundable for the current year and deferred tax assets and liabilities for the expected future tax consequences of temporary differences that currently exist between the tax basis and the financial reporting basis of our taxable subsidiaries' assets and liabilities using the enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in operations in the period that includes the enactment date. The measurement of deferred tax assets is reduced, if necessary, by the amount of any tax benefits that, based on available evidence, are not expected to be realized.

We regularly assess the need for a valuation allowance against our deferred tax assets. In making that assessment, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets on a jurisdictional basis to determine, based on the weight of available evidence, whether it is more-likely-than-not that some or all of the deferred tax assets will not be realized. Examples of positive and negative evidence include future growth, forecasted earnings, future taxable income, the mix of earnings in the jurisdictions in which we operate, historical earnings, taxable income in prior years, if carryback is permitted under the law and prudent and feasible tax planning strategies. In the event we were to determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets valuation allowance would be charged to earnings in the period in which we make such a determination, or goodwill would be adjusted at our final determination of the valuation allowance related to an acquisition within the measurement period. If we later determine that it is more-likely-than-not that the net deferred tax assets would be realized, we would reverse the applicable portion of the previously-provided valuation allowance as an adjustment to earnings at such time.

We account for unrecognized tax benefits using a more-likely-than-not threshold for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. We record an income tax liability, if any, for the difference between the benefit recognized and measured and the tax position taken or expected to be taken on our tax returns. At December 31, 2019, our estimated gross unrecognized tax benefits were $8.3 million, of which $236,000, if recognized, would favorably impact our future earnings. 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. To the extent that the assessment of such tax positions change, the change in estimate is recorded in the period in which the determination is made. The reserves are adjusted in light of changing facts and circumstances, such as the outcome of a tax audit. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate.

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.

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 noncompliance. 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.

In December 2010, National Response Corporation, a subsidiary of NRC acquired by the Company in the NRC Merger, was named as one of many "Dispersant Defendants" in multi-district litigation, arising out of the explosion of the BP oil rig, filed in the U.S. District Court for the Eastern District of Louisiana ("*In re Deepwater Horizon*" or the "MDL"). The claims against National Response Corporation, and other "Dispersant Defendants," were brought by workers and others who alleged injury arising from post-explosion clean–up efforts, including particularly the use of certain chemical dispersants. In January 2013, the Court approved a Medical Benefits Class Action Settlement, which, among other things, provided for a "class wide" settlement as well as a release of claims against Dispersant Defendants, including National Response Corporation. Further, National Response Corporation successfully moved the District Court to dismiss all claims against it based on derivative immunity, as it was acting at the direction of the U.S. Government. In early 2018, BP began asserting an alleged contractual right of indemnity against National Response Corporation and others in post-settlement lawsuits brought by persons who had either chosen not to participate in the class-wide agreement or whose injuries were allegedly manifest after the period covered by the claim submission process. The Company has advised BP that it considers the attempt to bring National Response Corporation back into previously settled litigation to be improper and has moved for a declaratory judgment that it owes no indemnity or contribution to BP, raising various arguments including inter alia, BP's own actions and conduct over the preceding nine years with respect to these claims (including its failure to seek indemnity) and the resultant prejudice to National Response Corporation, BP's waiver of any indemnity, and the Court's prior finding that National Response Corporation is entitled to derivative immunity. In response, BP asserted counterclaims against National Response Corporation for a declaratory judgment that National Response Corporation must indemnify BP under certain circumstances and for unjust enrichment. National Response Corporation successfully moved to dismiss the unjust enrichment claim. The Court has also ordered the parties to file simultaneous judgment on the pleadings briefs by February 14, 2020, and any oppositions by March 16, 2020. As such, the Company is currently unable to estimate the range of possible losses associated with this proceeding. However, the Company also believes that, were it deemed to have liability arising out of or related to BP's indemnity claims, such liability would be covered by an indemnity by SEACOR Holdings Inc., the former owner of National Response Corporation, in favor of National Response Corporation and its affiliates.

In January 2019, Kevin Sullivan, a driver for NRC from May 1, 2018 to August 22, 2018 filed a class action complaint against NRC in California Superior Court (*Kevin Sullivan et. Al. v. National Response Corp., NRC Environmental Services, Inc. and Paul Taveira et al.*) alleging the failure by the defendants to provide meal and rest breaks required by California law and requiring employees to work off the clock. Mr. Sullivan's complaint also asserted a claim under the California

Labor Code Private Attorneys General Act ("PAGA"), which permits an employee to assert a claim for violations of certain California Labor Code provisions on behalf of all aggrieved employees to recover statutory penalties that could be recovered by the State of California. On April 17, 2019, NRC filed a motion to compel individual arbitration, strike Mr. Sullivan's class action claims and stay the PAGA claim pending the outcome of Mr. Sullivan's individual claim; the Court subsequently granted the NRC's motion to compel. In response, Mr. Sullivan amended his complaint to dismiss the class claims without prejudice and proceed solely with the PAGA claim. Unlike class claims, PAGA claims cannot be waived by an employee's agreement to individual arbitration; therefore, the case is proceeding as a pure representative PAGA claim only, absent any individual or class claims against the Company or NRC. While the Company believes that Mr. Sullivan's claims lack merit, the Company is currently unable to estimate the range of possible losses associated with this proceeding.

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 and regained additional capabilities throughout the remainder of 2019. In addition to initiating and conducting our own investigation into the incident, we fully cooperated with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. On January 10, 2020, we entered into a settlement agreement with OSHA settling a complaint made by OSHA relating to the incident for $50,000. On January 28, 2020, the Occupational Safety and Health Review Commission issued an order terminating the proceeding relating to such OSHA complaint. We have not otherwise 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 herein, 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 its direct and indirect 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, 2019, $5.1 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 Revolving Credit Facility and Term Loan borrowings under the Credit Agreement. Our Revolving Credit Facility borrowings incur interest at a base rate (as defined in the 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 Credit Agreement). Our Term Loan bears interest at LIBOR plus 2.25% or a base rate plus 1.25% (with a step-up to LIBOR plus 2.50% or a base rate plus 1.50% in the event that US

Ecology credit ratings are not BB (with a stable or better outlook) or better from S&P and Ba2 (with a stable or better outlook) or better from Moody's).

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, 2019, there were $327.0 million of Revolving Credit Facility loans and $450.0 million of Term Loans outstanding under the 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 Credit Agreement and the Term Loan.

Based on the outstanding indebtedness of $777.0 million under the Credit Agreement at December 31, 2019 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 $6.2 million for the corresponding period.

Foreign Currency Risk

We are subject to foreign currency exchange risk through our international operations. While we operate primarily in the United States and, accordingly, most of our consolidated revenue and associated expenses are denominated in USD. During 2019 we recorded approximately $88.5 million, or 13%, of our revenue in Canada, $5.1 million, or 1%, of our revenue in the EMEA region, and less than 1% of our revenue from other international regions. Revenue and expenses denominated in foreign currencies may be affected by movements in foreign currency exchange rates.

Our exposure to foreign currency exchange risk in our Consolidated Balance Sheets relates primarily to cash, trade payables and receivables, and intercompany loans that are denominated in foreign currencies, primarily CAD. Contracts for services that our foreign subsidiaries provide to customers are often denominated in currencies other than their local functional currency. The resulting cash, receivable and payable accounts are subject to non-cash foreign currency translation gains or losses.

We established intercompany loans with certain of our Canadian subsidiaries, 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, 2019, we had $31.5 million of intercompany loans outstanding between our Canadian subsidiaries and US Ecology. During 2019, the CAD strengthened as compared to the USD resulting in a $878,000 non-cash foreign currency translation gain being recognized in the Company's consolidated statements of operations related to the intercompany loans. Based on intercompany balances as of December 31, 2019, a $0.01 CAD increase or decrease in currency rate compared to the USD at December 31, 2019 would have generated a gain or loss of approximately $315,000 for the year ended December 31, 2019.

We had a total pre-tax foreign currency loss of $733,000 for the year ended December 31, 2019. 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.

Commodity Price Risk

We have exposure to commodity pricing for oil and gas. Fluctuations in oil and gas commodity prices may impact business activity in the industries that we serve, affecting demand for our services and our future earnings and cash flows. We have not entered into any derivative contracts to hedge our exposure to commodity price risk.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors 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, 2019 and 2018, the related consolidated statements of operations, comprehensive income, shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). We have also audited the Company's internal control over financial reporting as of December 31, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, 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, 2019, 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 W.I.S.E. Environmental Solutions Inc. and NRC Group Holdings Corp., which were acquired on August 1, 2019 and November 1, 2019, respectively, and whose combined financial statements constitute 17% of total assets (excluding goodwill and intangible assets), 11% of revenues, and $8.6 million of operating loss of the consolidated financial statement amounts as of and for the year ended December 31, 2019. Accordingly, our audit did not include the internal control over financial reporting at W.I.S.E. Environmental Solutions Inc. and NRC Group Holdings Corp.

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.

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.

Critical Audit Matters

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

Goodwill, Refer to Notes 2, 3, and 13 to the financial statements

Critical Audit Matter Description

The Company's evaluation of goodwill for impairment involves the comparison of the estimated fair value of each of the Company's reporting units to their respective carrying value. Determination of the estimated fair value of a reporting unit requires judgement as to the future operating results of the reporting unit as well as the level of risks inherent in the projections. The Company estimates the fair value of its reporting units using a weighting of fair values derived from the income and market approaches, with the primary method being the income approach.

The determination of fair value using the income approach is based on the present value of estimated future cash flows, which requires management to make significant estimates and assumptions of revenue growth rates and operating margins, and selection of the discount rate.

The determination of the fair value using the market approach requires management to make significant assumptions related to market multiples of revenue and earnings derived from comparable publicly-traded companies with similar operating and investment characteristics as the reporting unit.

Changes in these estimates and assumptions could have a significant impact on the determination of the estimated fair value and any related goodwill impairment charge. One of the reporting units is a developing business and as such there is a risk that management's projections for future revenue growth and operating margins are not realized. Management determined the estimated fair value of this reporting unit exceeded its carrying value and, therefore, no impairment was recognized.

Given the estimated cash flows of this reporting unit are sensitive to assumptions around revenue growth, operating margins, and discount rates, auditing these estimates involved especially subjective judgment and an increased extent of effort, including the involvement of our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures applied to the forecasted future cash flows and the selection of the discount rate for this reporting

unit included the following:

- We tested the effectiveness of controls over the management's goodwill impairment evaluation, including the controls related to management's forecasted cash flows and the selection of the discount rate.
- We evaluated management's ability to accurately forecast by comparing actual results to management's historical forecasts.
- We performed a sensitivity analysis to evaluate risk of material misstatement of key business and valuation assumptions used in the fair value model.
- We evaluated the reasonableness of management's cash flow forecasts by comparing the forecasts to:
  - Historical results of operations.
  - Internal communications related to the annual budget process and other information shared with the Company's Board of Directors.
  - Information included in Company press releases as well as in analyst and industry reports for the Company and certain of its peer companies.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the valuation methodology used and discount rate applied by:
  - Testing the source information underlying the determination of the discount rate and the mathematical accuracy of the calculation.
  - Developing a range of independent estimates and comparing those to the discount rate selected by management.

Business Combination - NRC Group Holdings Corp. – Identifiable Intangible Assets, Refer to Note 5 to the financial statements

Critical Audit Matter Description

The Company completed the merger of NRC Group Holdings Corp. ("NRC") on November 1, 2019 and accounted for the transaction under the acquisition method of accounting for business combinations. Under this approach, the Company allocated the fair value of purchase consideration transferred to the tangible and intangible assets acquired and liabilities assumed based on preliminary estimates of fair value on the date of the acquisition. The assets acquired included intangible assets of approximately $303.6 million.

Auditing the Company's accounting for the preliminary allocation of the purchase price for its acquisition of NRC was complex due to the significant assumptions used to estimate the identifiable intangible assets, which primarily consisted of customer relationships.

Management determined the estimated preliminary fair value of the majority of acquired intangible assets using assumed revenue growth rates, gross margin percentage, selling, general, and administrative expenses, and the discount rate.

We identified the preliminary valuation of the intangible assets as a critical audit matter because of the significant estimates and assumptions management made to determine the fair values of these assets for purposes of the preliminary purchase price allocation. This required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists, when performing audit procedures to evaluate the reasonableness of management's valuation models and assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to testing the valuation models and assumptions for the intangible assets included the following, among others:

- We tested the effectiveness of controls over the determination of the fair value of intangible assets acquired, including management's controls over forecasts of future cash flows and selection of the discount rates.
- We evaluated the reasonableness of management's forecasts of future cash flows by comparing the assumptions used

in the projections to historical results of NRC and peer companies.

- With the assistance of our fair value specialists we also performed the following:
  - We evaluated the reasonableness of the valuation methodologies.
  - We evaluated the discount rates, including testing of the source information underlying the determination of the discount rates, testing the mathematical accuracy of the calculations, and developing a range of independent estimates and compared those to the amounts selected by management.

/s/ DELOITTE & TOUCHE LLP

Boise, Idaho

March 2, 2020

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

US ECOLOGY, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except per share amounts)

	As of December 31,	
	2019	**2018**
Assets		
Current Assets:		
Cash and cash equivalents	$ 41,281	$ 31,969
Receivables, net	255,310	144,690
Prepaid expenses and other current assets	25,136	10,938
Income taxes receivable	11,244	7,071
Total current assets	332,971	194,668
Property and equipment, net	478,768	258,443
Operating lease assets	57,396	—
Restricted cash and investments	5,069	4,941
Intangible assets, net	574,902	279,666
Goodwill	766,980	207,177
Other assets	15,158	3,003
Total assets	$ 2,231,244	$ 947,898
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 46,906	$ 17,754
Deferred revenue	14,788	10,451
Accrued liabilities	65,869	35,524
Accrued salaries and benefits	29,653	16,732
Income taxes payable	726	505
Current portion of long-term debt	3,359	—
Current portion of closure and post-closure obligations	2,152	2,266
Current portion of operating lease liabilities	17,317	—
Total current liabilities	180,770	83,232
Long-term debt	765,842	364,000
Long-term closure and post-closure obligations	84,231	76,097
Long-term operating lease liabilities	39,954	—
Other long-term liabilities	20,722	2,146
Deferred income taxes, net	128,345	63,206
Total liabilities	1,219,864	588,681
Commitments and contingencies (See Note 18)		
Stockholders' Equity:		
Common stock $0.01 par value per share, 50,000 authorized; 31,461 and 22,040 shares issued and outstanding, respectively	315	220
Additional paid-in capital	816,345	183,834
Retained earnings	206,574	189,324
Treasury stock, at cost, 0 and 8 shares, respectively	—	(370)
Accumulated other comprehensive loss	(11,854)	(13,791)
Total stockholders' equity	1,011,380	359,217
Total liabilities and stockholders' equity	$ 2,231,244	$ 947,898

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

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

	For the Year Ended December 31,		
	2019	**2018**	**2017**
Revenue	$ 685,509	$ 565,928	$ 504,042
Direct operating costs	475,675	395,834	350,915
Gross profit	209,834	170,094	153,127
Selling, general and administrative expenses	141,123	92,340	84,466
Goodwill and intangible asset impairment charges	—	3,666	8,903
Operating income	68,711	74,088	59,758
Other income (expense):			
Interest income	605	215	62
Interest expense	(19,239)	(12,130)	(18,157)
Foreign currency gain (loss)	(733)	55	516
Other	455	2,630	791
Total other expense	(18,912)	(9,230)	(16,788)
Income before income taxes	49,799	64,858	42,970
Income tax expense (benefit)	16,659	15,263	(6,395)
Net income	$ 33,140	$ 49,595	$ 49,365
Earnings per share:			
Basic	$ 1.41	$ 2.27	$ 2.27
Diluted	$ 1.40	$ 2.25	$ 2.25
Shares used in earnings per share calculation:			
Basic	23,521	21,888	21,758
Diluted	23,749	22,047	21,902

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

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

	For the Year Ended December 31,		
	2019	2018	2017
Net income	$ 33,140	$ 49,595	$ 49,365
Other comprehensive income (loss):			
Foreign currency translation gain (loss)	3,772	(6,094)	4,046
Net changes in interest rate hedge, net of taxes of $(488), $375 and $985, respectively	(1,835)	1,407	1,575
Comprehensive income, net of tax	$ 35,077	$ 44,908	$ 54,986

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

US ECOLOGY, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	For the Year Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income	$ 33,140	$ 49,595	$ 49,365
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization of property and equipment	41,423	29,207	28,302
Amortization of intangible assets	15,491	9,645	9,888
Accretion of closure and post-closure obligations	4,388	3,707	3,026
Property and equipment impairment charges	25	—	—
Goodwill and intangible asset impairment charges	—	3,666	8,903
Unrealized foreign currency loss (gain)	(666)	1,211	(1,283)
Deferred income taxes	6,601	5,906	(25,309)
Share-based compensation expense	5,544	4,366	3,933
Share-based payments of business development and integration expenses	3,717	—	—
Unrecognized tax benefits	(238)	485	—
Net loss on disposition of assets	426	370	408
Gain on insurance proceeds from damaged property and equipment	(12,366)	(347)	(1,313)
Amortization and write-off of debt issuance costs	1,007	810	6,009
Amortization and write-off of debt discount	27	—	667
Change in fair value of contingent consideration	349	—	—
Changes in assets and liabilities (net of effects of business acquisitions):			
Receivables	(9,357)	(32,301)	(13,861)
Income taxes receivable	(4,163)	(7,072)	4,121
Other assets	(2,163)	(1,187)	(1,328)
Accounts payable and accrued liabilities	(10,706)	14,301	2,012
Deferred revenue	967	2,059	617
Accrued salaries and benefits	8,326	2,476	3,420
Income taxes payable	(244)	(3,512)	3,921
Closure and post-closure obligations	(1,912)	(1,900)	(1,795)
Net cash provided by operating activities	79,616	81,485	79,703
Cash flows from investing activities:			
Business acquisitions (net of cash acquired)	(399,599)	(108,382)	—
Purchases of property and equipment	(58,100)	(40,757)	(36,240)
Insurance proceeds from damaged property and equipment	12,714	—	1,313
Minority interest investment	(7,870)	—	—
Proceeds from sale of property and equipment	1,182	493	974
Payment of acquired contingent consideration liabilities	(4,000)	—	—
Purchases of restricted investments	(1,197)	(1,023)	(800)
Proceeds from sale of restricted investments	1,145	910	835
Net cash used in investing activities	(455,725)	(148,759)	(33,918)
Cash flows from financing activities:			
Proceeds from long-term debt	491,875	87,000	281,000
Payments on long-term debt	(80,000)	—	(287,040)
Payments on short-term borrowings	(77,997)	—	(13,438)
Proceeds from short-term borrowings	77,997	—	11,260
Dividends paid	(15,890)	(15,804)	(15,711)
Deferred financing costs paid	(9,416)	—	(2,967)
Payment of equipment financing obligations	(1,539)	(448)	(377)
Proceeds from exercise of stock options	319	2,427	1,050
Other	(915)	(314)	(121)
Net cash provided by (used in) financing activities	384,434	72,861	(26,344)
Effect of foreign exchange rate changes on cash	1,062	(1,633)	636
Increase in Cash and cash equivalents and restricted cash	9,387	3,954	20,077
Cash and cash equivalents and restricted cash at beginning of year	32,753	28,799	8,722
Cash and cash equivalents and restricted cash at end of year	$ 42,140	$ 32,753	$ 28,799
Reconciliation of Cash and cash equivalents and restricted cash			
Cash and cash equivalents at beginning of year	31,969	27,042	7,015
Restricted cash at beginning of year	784	1,757	1,707
Cash and cash equivalents and restricted cash at beginning of year	32,753	28,799	8,722
Cash and cash equivalents at end of year	41,281	31,969	27,042
Restricted cash at end of year	859	784	1,757
Cash and cash equivalents and restricted cash at end of year	42,140	32,753	28,799

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

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, 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
Dividends 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)
Issuance of restricted common stock	26,274	—	(81)	—	—	—	(81)
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)
Dividends 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
Net income	—	—	—	33,140	—	—	33,140
Other comprehensive income	—	—	—	—	—	1,937	1,937
Common stock issued in NRC Merger	9,337,949	93	581,008	—	—	—	581,101
Replacement warrants, restricted stock and stock options issued in NRC Merger	—	—	45,359	—	—	—	45,359
Dividends paid	—	—	—	(15,890)	—	—	(15,890)
Share-based compensation	—	—	5,544	—	—	—	5,544
Share-based payments of business development and integration expenses	—	—	3,717	—	—	—	3,717
Stock option exercises	8,235	—	319	—	—	—	319
Repurchase of common stock: 14,462 shares	—	—	—	—	(916)	—	(916)
Issuance of restricted common stock	78,175	2	(1,516)	—	—	—	(1,514)
Issuance of performance common stock	9,540	—	(634)	—	—	—	(634)
Issuance of restricted common stock from treasury shares	—	—	(514)	—	514	—	—
Cancellation of treasury shares	(13,359)	—	(772)	—	772	—	—
Balance at December 31, 2019	31,460,684	$ 315	$ 816,345	$ 206,574	$ —	$ (11,854)	$ 1,011,380

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

US ECOLOGY, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. DESCRIPTION OF BUSINESS

US Ecology Holdings, Inc., the predecessor to the Company ("Predecessor US Ecology"), was incorporated as a Delaware corporation in March 1987 as American Ecology Corporation. On February 22, 2010, Predecessor US Ecology changed its name from American Ecology Corporation to US Ecology, Inc. On November 1, 2019, in connection with the Company's acquisition of NRC Group Holdings Corp. ("NRC"), a new parent entity of US Ecology completed a merger transaction with Predecessor US Ecology and became the successor to Predecessor US Ecology and changed its name to "US Ecology, Inc." In connection with the closing of the NRC Merger (as defined below), Predecessor US Ecology changed its name to "US Ecology Holdings, 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. and its predecessors have been protecting the environment since 1952, with operations primarily in the United States, Canada, the Europe, Middle East, and Africa ("EMEA") region and Mexico. Throughout these consolidated financial statements words such as "we," "us," "our," "US Ecology" and the "Company" refer to US Ecology, Inc. and its subsidiaries.

On November 1, 2019, pursuant to and subject to the conditions set forth in the Agreement and Plan of Merger (the "Merger Agreement") by and among the Company, NRC, Predecessor US Ecology, Rooster Merger Sub, Inc. ("NRC Merger Sub"), and ECOL Merger Sub, Inc. ("ECOL Merger Sub"), ECOL Merger Sub merged with and into Predecessor US Ecology, with Predecessor US Ecology continuing as the surviving company and as a wholly-owned subsidiary of the Company. Substantially concurrently therewith, NRC Merger Sub merged with and into NRC, with NRC continuing as the surviving company and as a wholly-owned subsidiary of the Company. Following the completion of the mergers (collectively, the "NRC Merger"), the Company contributed all of the issued and outstanding equity interests of NRC to Predecessor US Ecology so that, after such contribution, NRC became a wholly-owned subsidiary of Predecessor US Ecology.

Effective as of November 1, 2019, the Company changed its name from "US Ecology Parent, Inc." to "US Ecology, Inc.," the Company's common stock and warrants began trading on Nasdaq under the symbol "ECOL" and "ECOLW," respectively. The Company identified itself as the successor issuer to Predecessor US Ecology pursuant to Rule 12g-3(c) under the Securities Exchange Act of 1934, as amended.

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 specialty material management services including transportation, recycling, treatment and disposal of hazardous, non-hazardous, E&P and radioactive waste at Company-owned landfill, wastewater, deep-well injection and other treatment facilities.
>
> **Field & Industrial Services**—This segment provides specialty field services and total waste management solutions to commercial and industrial facilities and to government entities through our 10-day transfer facilities and at customer sites, both domestic and international. Specialty field services include standby services, emergency response, industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, and other services. Total waste management services include on-site management, waste characterization, transportation and disposal of non- hazardous and hazardous waste.

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 $41.3 million and $32.0 million at December 31, 2019 and 2018, respectively. At December 31, 2019 and 2018, we had $35.2 million and $19.4 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, 2019, were billed in the following month.

Restricted Cash and Investments

Restricted cash and investments of $5.1 million and $4.9 million at December 31, 2019 and 2018, 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. Additionally, we have customers that pay annual retainer fees, primarily for our standby services, under long-term or evergreen contracts. Such retainer fees are recognized over time as the services are 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 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 2019 and is effective until December 31, 2025.

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, 2019 and 2018, we recognized $10.4 million and $8.4 million of revenue that was included in the deferred revenue balance at the beginning of each year, respectively.

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 $20.5 million, $17.5 million and $14.8 million for the years ended December 31, 2019, 2018 and 2017, 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, vessels 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 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 related to our annual assessment of goodwill.

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 related to our annual assessment of non-amortizing intangible.

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.

Debt Issuance Costs & Debt Discount

Debt issuance costs and debt discount are amortized over the scheduled maturity of the underlying debt instrument. Amortization of debt issuance costs and debt discount is included as a component of interest expense in the consolidated statements of operations. Unamortized debt discount and debt issuance costs associated with our Term Loan were $7.8 million at December 31, 2019 and have been recorded as a reduction of the Current portion of long-term debt and Long-term debt in the consolidated balance sheets. Unamortized debt issuance costs associated with our Revolving Credit Facility were $4.7 million and $2.7 million at December 31, 2019 and 2018, respectively, and have been recorded in Prepaid expenses and other current assets and Other assets in the consolidated balance sheets.

The Company wrote off certain unamortized debt issuance costs associated with the 2014 Credit Agreement that were to be amortized to interest expense in future periods through a charge of $5.5 million to Interest expense in 2017.

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

The assets, liabilities and results of operations of certain of our foreign subsidiaries are measured using their functional currency which is the currency of the primary foreign economic environment in which they operate. 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 foreign 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

We account for income taxes using an asset and liability method, which requires the recognition of taxes payable or refundable for the current year and deferred tax assets and liabilities for the expected future tax consequences of temporary differences that currently exist between the tax basis and the financial reporting basis of our taxable subsidiaries' assets and liabilities using the enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in operations in the period that includes the enactment date. The measurement of deferred tax assets is reduced, if necessary, by the amount of any tax benefits that, based on available evidence, are not expected to be realized.

We regularly assess the need for a valuation allowance against our deferred tax assets. In making that assessment, we consider both positive and negative evidence related to the likelihood of realization of the deferred tax assets on a jurisdictional basis to determine, based on the weight of available evidence, whether it is more-likely-than-not that some or all of the deferred tax assets will not be realized. Examples of positive and negative evidence include future growth, forecasted earnings, future taxable income, the mix of earnings in the jurisdictions in which we operate, historical earnings, taxable income in prior years, if carryback is permitted under the law and prudent and feasible tax planning strategies. In the event we were to determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the deferred tax assets valuation allowance would be charged to earnings in the period in which we make such a determination, or goodwill would be adjusted at our final determination of the valuation allowance related to an acquisition within the measurement period. If we later determine that it is more-likely-than-not that the net deferred tax assets would be realized, we would reverse the applicable portion of the previously-provided valuation allowance as an adjustment to earnings at such time.

We account for unrecognized tax benefits using a more-likely-than-not threshold for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. We record an income tax liability, if any, for the difference between the benefit recognized and measured and the tax position taken or expected to be taken on our tax returns. At December 31, 2019, our estimated gross unrecognized tax benefits were $8.3 million, of which $236,000, if recognized, would favorably impact our future earnings. 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. To the extent that the assessment of such tax positions change, the change in estimate is recorded in the period in which the determination is made. The reserves are adjusted in light of changing facts and circumstances, such as the outcome of a tax audit. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate.

Insurance

Accrued costs for our self-insured healthcare coverage were $1.0 million and $826,000 at December 31, 2019 and 2018, respectively.

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 August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, "Disclosure Update and Simplification," adopting amendments to certain disclosure rules that were redundant, duplicative, overlapping, outdated, or superseded, in light of other SEC disclosure requirements, GAAP or changes in the information environment. In addition, the amendments expanded the disclosure requirements relating to the analysis of equity for interim financial statements. Under the amendments, an analysis of the changes in each caption of shareholders' equity and noncontrolling interests presented in the balance sheet must be provided in a note or separate statement. The analysis must present a reconciliation of the beginning balance to the ending balance of each period for which a statement of earnings is required to be filed. The final rule became effective on November 5, 2018. The Company adopted the final rule effective for the first quarter of 2019. The adoption of the final rule did not have an impact on the Company's consolidated financial position or results of operations.

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 adopted ASU 2017-12 on January 1, 2019 and the standard did not have a material impact on its consolidated financial statements.

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 Company adopted ASU 2016-02 on January 1, 2019 utilizing the modified retrospective transition method and elected not to recast comparative periods. We elected the package of practical expedients, which allows the Company not to reassess (1) whether any expired or existing contracts as of the adoption date are or contain a lease, (2) lease classification for any expired or existing leases as of the adoption date and (3) initial direct costs for any existing leases as of the adoption date. We also elected the practical expedient related to land easements, allowing us to carry forward our accounting treatment for land easements on existing agreements. The Company did not elect to apply the hindsight practical expedient when determining lease term and assessing impairment of right-of-use assets.

Adoption of ASU 2016-02 resulted in the recognition of right-of-use assets and lease liabilities for operating leases of $18.1 million on its consolidated balance sheet as of January 1, 2019, with no material impact on its consolidated statement of stockholders' equity or consolidated statements of operations. See Note 12 for additional information and disclosure on our leases.

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes" (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"), which is intended to simplify various aspects related to accounting for income taxes. ASU 2019-12 removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing guidance to improve consistent application. This guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact of this standard on its consolidated financial statements and related disclosures.

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses" (Topic 326), which is effective for reporting periods beginning after December 15, 2019. The standard replaces the incurred loss impairment methodology under current GAAP with a methodology that reflects expected credit losses and requires the use of a forward-looking expected credit loss model for accounts receivables, loans, and other financial instruments. The standard requires a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We plan to adopt the new credit loss standard effective January 1, 2020 and do not expect the impact of this standard to have a material impact on our consolidated financial statements.

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, and estimate our income tax rate and 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.

- *Contingent Consideration* – The Company records liabilities for the estimated fair value of potential future payments the Company may be required to remit under the terms of historical purchase agreements, entered into by NRC, prior to the NRC Merger. The payments are contingent on the acquired business' achievement of annual earnings targets in certain years and other events considered in the purchase agreement.

- *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 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. See Note 21 for additional information on our operating segments.

Effective January 1, 2019, Emergency Response revenues, formerly classified as Other, are now presented as a discrete service line. We also conformed the allocation of intercompany revenues between Treatment & Disposal Revenue and Services Revenue to be consistent across both segments. 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:

$s in thousands	2019 Environmental Services	2019 Field & Industrial Services	2019 Total
Treatment & Disposal Revenue (1)	$ 365,886	$ 18,480	$ 384,366
Services Revenue:			
Transportation and Logistics (2)	87,221	40,833	128,054
Industrial Services (3)	—	38,865	38,865
Small Quantity Generation (4)	—	37,471	37,471
Total Waste Management (5)	—	33,792	33,792
Remediation (6)	—	13,288	13,288
Emergency Response (7)	—	26,737	26,737
Domestic Standby Services (8)	—	14,249	14,249
Other (9)	—	8,687	8,687
Revenue	$ 453,107	$ 232,402	$ 685,509

$s in thousands	2018 Environmental Services	2018 Field & Industrial Services	2018 Total
Treatment & Disposal Revenue (1)	$ 320,045	$ 11,736	$ 331,781
Services Revenue:			
Transportation and Logistics (2)	80,633	33,037	113,670
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
Emergency Response (7)	—	7,513	7,513
Other (9)	—	2,370	2,370
Revenue	$ 400,678	$ 165,250	$ 565,928

$s in thousands	2017 Environmental Services	2017 Field & Industrial Services	2017 Total
Treatment & Disposal Revenue (1)	$ 299,403	$ 10,404	$ 309,807
Services Revenue:			
Transportation and Logistics (2)	66,905	21,899	88,804
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
Emergency Response (7)	—	3,214	3,214
Other (9)	—	293	293
Revenue	$ 366,308	$ 137,734	$ 504,042

(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, 2019, 2018 and 2017, 22%, 20% and 22%, respectively, of our treatment and disposal revenue, excluding NRC, was derived from Event Business projects. Base Business revenue accounted for 78%, 80% and 78% of our treatment and disposal revenue, excluding NRC, for the years ended December 31, 2019, 2018 and 2017, respectively.

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

(3) Includes 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 retail services, laboratory packing, less-then-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 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 spill response, waste analysis and treatment and disposal planning.
(8) We provide government-mandated, commercial standby oil spill compliance solutions to companies that store, transport, produce or handle petroleum and certain nonpetroleum oils on or near U.S. waters. Our standby services customers pay annual retainer fees under long-term or evergreen contracts for access to our regulatory certifications, specialized assets and highly trained personnel. When a customer with a retainer contract experiences a spill incident, we coordinate and manage the spill response, which results in incremental revenue for the services provided, in addition to the retainer fees.
(9) Includes equipment rental and other miscellaneous services.

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

	2019			2018			2017		
$s in thousands	Environmental Services	Field & Industrial Services	Total	Environmental Services	Field & Industrial Services	Total	Environmental Services	Field & Industrial Services	Total
United States	$ 367,185	$ 221,942	$ 589,127	$ 329,918	$ 165,250	$ 495,168	$ 296,777	$ 137,734	$ 434,511
Canada	85,922	2,577	88,499	70,760	—	70,760	69,531	—	69,531
EMEA	—	5,079	5,079	—	—	—	—	—	—
Other (1)	—	2,804	2,804	—	—	—	—	—	—
Total revenue	$ 453,107	$ 232,402	$ 685,509	$ 400,678	$ 165,250	$ 565,928	$ 366,308	$ 137,734	$ 504,042

(1) Includes Mexico, Asia Pacific, and Latin America and Caribbean geographical regions.

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. Other commissions and incremental costs to obtain a contract are not material.

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.

NOTE 5. BUSINESS COMBINATIONS

NRC Group Holdings Corp.

On November 1, 2019, the Company completed its merger with NRC, a provider of comprehensive environmental, compliance and waste management services to the marine and rail transportation, general industrial and energy industries. The addition of NRC's substantial service network strengthens and expands US Ecology's suite of environmental services, including new oil and gas exploration and production landfill disposal capabilities, and provides expanded opportunities to establish US Ecology as a leader in standby and emergency response services.

The total merger consideration was $1,024.8 million, comprised of the following:

$s in thousands	November 1, 2019
Fair value of US Ecology common stock issued (1)	$ 581,101
Fair value of replacement warrants issued (2)	44,858
Fair value of replacement restricted stock units issued (3)	141
Fair value of replacement stock options (4)	360
Repayment of NRC's term loan and revolving credit facility	398,373
Total merger consideration	$ 1,024,833

(1) The fair value of US Ecology common stock issued was calculated based on 9,337,949 shares of US Ecology common stock multiplied by the closing price of US Ecology common stock of $62.23 per share on October 31, 2019, the day immediately preceding the closing of the NRC Merger.

(2) The fair value of replacement warrants issued was calculated based on 3,772,753 replacement warrants multiplied by the fair value per warrant of $11.89. The fair value per warrant was based on the closing price of the replaced NRC warrants (NYSE: NRCG.WS) of $2.33 on October 31, 2019, the day immediately preceding the closing of the NRC Merger, divided by the exchange ratio of 0.196 pursuant to the Merger Agreement.

(3) The fair value of replacement restricted stock units issued was calculated based on 118,239 replacement restricted stock units multiplied by the closing price of US Ecology common stock of $62.23 per share on October 31, 2019, the day immediately preceding the closing of the NRC Merger, further multiplied by the ratio of the precombination service period to the remaining vesting period, or approximately 1.9%.

(4) The fair value of replacement stock options issued was calculated based on 29,400 replacement stock options multiplied by the fair value per option of $12.26. The fair value per option was calculated using the Black-Scholes option pricing model, with the following weighted-average assumptions: strike price of $52.30 per option, dividend yield of 1.2%; expected volatility of 28.9%; average risk-free interest rate of 1.5%; and an expected term of 1 year. The replacement stock options became fully vested at the merger date therefore the entire fair value is considered merger consideration.

The payment of transaction fees and expenses and repayment of $398.4 million of NRC's debt were funded using proceeds from a new $450.0 million seven-year term loan. Refer to "Note 16. Debt" for more information.

We have recognized the assets and liabilities of NRC based on our preliminary estimates of their acquisition date fair values. The purchase price allocations are preliminary and subject to change. We continue to gather information relevant to our determination of the fair value of acquired assets and liabilities primarily related to, but not limited to, property and equipment, identifiable intangible assets and deferred income taxes. Any adjustments to the purchase price allocations are made as soon as practicable but no later than one year from the merger date. The following table summarizes the merger consideration and the preliminary fair value estimates of assets acquired and liabilities assumed at the merger date:

$s in thousands		November 1, 2019
Current assets	$	131,653
Property and equipment		197,045
Identifiable intangible assets		303,600
Other assets		41,687
Current liabilities		(83,460)
Deferred income tax liabilities		(56,596)
Other liabilities		(57,581)
Total identifiable net assets		476,348
Goodwill		548,485
Total purchase price	$	1,024,833

Goodwill of $548.5 million arising from the acquisition is primarily attributable to the assembled workforce of NRC and expected synergies from combining operations. $308.9 million of the goodwill recognized was allocated to our Environmental Services segment and $239.6 million of the goodwill recognized was allocated to Field & Industrial Services segment. We expect $33.3 million of the acquired goodwill to be deductible for income tax purposes.

The preliminary fair value of identifiable intangible assets related to the acquisition of NRC by major intangible asset class and corresponding weighted average amortization period are as follows:

$s in thousands		Fair Value	Average Amortization Period (Years)
Amortizing intangible assets:			
Customer relationships - noncontractual	$	193,700	14
Customer relationships - contractual		34,400	7
Permits and licenses		8,700	16
Tradenames		6,100	2
Non-compete agreements		3,300	2
Total identified amortizing intangible assets		246,200	
Non-amortizing intangible assets:			
Permits and licenses		57,400	n/a
Total identified intangible assets	$	303,600	

The following unaudited pro forma financial information presents the combined results of operations as if NRC had been combined with US Ecology as of January 1, 2018. The pro forma financial information includes the accounting effects of the business combination, including the amortization of intangible assets, depreciation of property, plant and equipment, and interest expense. The unaudited pro forma financial information is presented for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at the beginning of the periods presented, nor should it be taken as indication of our future consolidated results of operations.

$s in thousands	(unaudited) 2019	2018
Pro forma combined:		
Revenue	$ 1,048,745	$ 923,947
Net income (loss)	$ 11,775	$ (12,296)

The amounts of revenue and operating loss from NRC included in the Company's consolidated statements of operations for the year ended December 31, 2019 was $70.2 million and $9.1 million, respectively. NRC Merger-related business development and integration expenses of $24.4 million are included in Selling, general and administrative expenses in the Company's consolidated statements of operations for the year ended December 31, 2019.

W.I.S.E. Environmental Solutions Inc.

On August 1, 2019, we acquired 100% of the outstanding shares of W.I.S.E. Environmental Solutions Inc. ("US Ecology Sarnia"), an equipment rental and waste services company based in Sarnia, Ontario, Canada for 23.5 million Canadian dollars, which translated to $17.9 million at the time of transaction and was funded with borrowings under the Credit Agreement. US Ecology Sarnia is reported as part of our Field & Industrial Services segment. The Company assessed the revenues, net income, earnings per share and total assets of US Ecology Sarnia and concluded they are not material to our consolidated financial position or results of operations. As such, pro forma financial information has not been provided.

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 $7.7 million allocated to goodwill and $6.2 million allocated to intangible assets (primarily customer relationships) to be amortized over a weighted average life of approximately 14 years. The purchase price allocation is preliminary, as estimates and assumptions are subject to change as more information becomes available.

Goodwill of $7.7 million arising from the acquisition is attributable to the assembled workforce and the future economic benefits of synergies with our other regional facilities and expansion into new markets. All of the goodwill recognized was assigned to our Field & Industrial Services segment and is not expected to be deductible for income tax purposes.

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.

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 $87.2 million and was funded with $87.0 million in borrowings under the Credit Agreement and cash on hand. 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.

We allocated the purchase price to the assets acquired and liabilities assumed based on estimates of the fair value at the date of acquisition. The following table summarizes the consideration paid for Winnie and the fair value estimates of assets acquired and liabilities assumed, recognized at the acquisition date, with purchase price allocation adjustments since the preliminary purchase price allocation as previously disclosed as of December 31, 2018:

	Purchase Price Allocation		
$s in thousands	**December 31, 2018**	**Adjustments**	**December 31, 2019**
Current assets	$ 1,923	$ (63)	$ 1,860
Property and equipment	6,300	(2,601)	3,699
Identifiable intangible assets	66,600	(100)	66,500
Current liabilities	(755)	—	(755)
Other liabilities	(512)	—	(512)
Total identifiable net assets	73,556	(2,764)	70,792
Goodwill	13,573	2,863	16,436
Total purchase price	$ 87,129	$ 99	$ 87,228

Purchase price allocation adjustments relate primarily to the receipt of additional information regarding the fair values of property and equipment and a post-closing price adjustment based on working capital requirements.

The fair value of identifiable intangible assets related to the acquisition of Winnie consisted of $54.7 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 $16.4 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.

NOTE 6. 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, 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 (1)	—	296	296
Other comprehensive income (loss), net	(6,094)	1,407	(4,687)
Balance at December 31, 2018	$ (14,697)	$ 906	$ (13,791)
Other comprehensive income (loss) before reclassifications, net of tax	3,772	(1,700)	2,072
Amounts reclassified out of AOCI, net of tax (2)	—	(135)	(135)
Other comprehensive income (loss), net	3,772	(1,835)	1,937
Balance at December 31, 2019	$ (10,925)	$ (929)	$ (11,854)

(1) 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.

(2) Before-tax reclassifications of $170,000 ($135,000 after-tax) for the year ended December 31, 2019 were included as a reduction of 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 interest expense over the next 12 months total approximately $523,000 ($413,000 after tax).

NOTE 7. DISCLOSURE OF SUPPLEMENTAL CASH FLOW INFORMATION

	For the Year Ended December 31,		
$s in thousands	2019	2018	2017
Income taxes and interest paid:			
Income taxes paid, net of receipts	$ 14,777	$ 19,580	$ 10,714
Interest paid	17,204	11,246	11,364
Non-cash investing and financing activities:			
Fair value of equity issued for acquisition of NRC	626,460	—	—
Closure/Post-closure retirement asset	(221)	99	(352)
Capital expenditures in accounts payable	2,882	1,601	2,302
Acquisition of equipment with financing arrangements	2,481	747	531
Restricted stock issuances from treasury shares	514	11	105

NOTE 8. 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, interest rate swap agreements and contingent consideration. 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.

On September 19, 2019, the Company invested $7.9 million in the preferred stock of a privately held company which is included in Other assets in the Company’s consolidated balance sheets. The investment does not have a readily determinable fair value therefore the investment is valued at cost, less impairment, plus or minus observable price changes of an identical or similar investment of the same issuer, if any. As of December 31, 2019, there have been no identified events or changes in circumstances that would indicate the cost method investment should be impaired nor have there been any observable price changes of an identical or similar investment of the same issuer.

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, 2019, the fair value of the Company’s variable rate term loan was estimated to be $454.5 million, and the carrying value of the Company’s variable-rate revolving credit facility approximates fair value due to the short-term nature of the interest rates.

The Company estimates the fair value of its contingent consideration liabilities using Level 3 inputs, including both observable and unobservable inputs. As a result, unrealized gains and losses may include changes in fair value that are attributable to both observable (e.g., changes in market interest rates) and unobservable (e.g., changes in unobservable long-dated volatilities) inputs.

The Company’s assets and liabilities measured at fair value on a recurring basis at December 31, 2019 and 2018 consisted of the following:

	2019			
$s in thousands	**Quoted Prices in Active Markets (Level 1)**	**Other Observable Inputs (Level 2)**	**Unobservable Inputs (Level 3)**	**Total**
Assets:				
Fixed-income securities [1]	$ 2,380	$ 1,830	$ —	$ 4,210
Money market funds [2]	859	—	—	859
Total	$ 3,239	$ 1,830	$ —	$ 5,069
Liabilities:				
Interest rate swap agreement [3]	$ —	$ 1,176	$ —	$ 1,176
Contingent consideration [4]	—	—	8,283	8,283
Total	$ —	$ 1,176	$ 8,283	$ 9,459

	2018			
$s in thousands	**Quoted Prices in Active Markets (Level 1)**	**Other Observable Inputs (Level 2)**	**Unobservable Inputs (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

(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 long-term liabilities and Other assets in the Company's consolidated balance sheets as of December 31, 2019 and 2018, respectively.

(4) Our contingent consideration liabilities represent the estimated fair value of potential future payments the Company may be required to remit under the terms of historical purchase agreements entered into by NRC prior to the NRC Merger. The payments are contingent on the acquired businesses' achievement of annual earnings targets in certain years and other events considered in the purchase agreements. The fair value of our contingent consideration liabilities are calculated using either a Monte Carlo simulation or modified Black-Scholes analyses based on earnings projections for the respective earn-out periods, corresponding earnings thresholds, and approximate timing of payments as outlined in the purchase agreements. The analyses utilize the following assumptions: (i) expected term; (ii) risk-adjusted net sales or earnings; (iii) risk-free interest rate; and (iv) expected volatility of earnings. Estimated payments, as determined through the respective models, are discounted by a credit spread assumption to account for credit risk. The fair value of our contingent consideration liabilities are included in Accrued liabilities and Other long-term liabilities. At December 31, 2019, balances of $6.6 million and $1.7 million were included in Accrued liabilities and Other long-term liabilities, respectively. We revalue our contingent consideration payments each period and any increases or decreases to fair value are included in Selling, general and administrative expenses in our consolidated statements of operations. Fair values may be impacted by certain unobservable inputs, most significantly with regard to discount rates, expected volatility and historical and projected performance. Significant changes to these inputs in isolation could result in a significantly different fair value measurement.

Changes in Level 3 liabilities measured at fair value for the years ended December 31, 2019 and 2018 are as follows:

$s in thousands	Fair Value (Level 3)
Balance at December 31, 2017	$ —
Balance at December 31, 2018	$ —
Fair value of contingent consideration acquired	11,859
Change in fair value of contingent consideration	349
Foreign currency translation	75
Contingent consideration paid	(4,000)
Balance at December 31, 2019	$ 8,283

NOTE 9. CONCENTRATIONS AND CREDIT RISK

Major Customers

No customer accounted for more than 10% of total revenue for the years ended December 31, 2019, 2018 or 2017.

No customer accounted for more than 10% of total receivables as of December 31, 2019 or 2018.

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. Credit risk associated with a portion of the Company's trade receivables is reduced by our ability to submit claims to the Oil Spill Liability Trust Fund ("OSLTF") for reimbursement of unpaid customer receivables related to services regulated under the provisions of the Oil Pollution Act of 1990 ("OPA 90"). As of December 31, 2019, the Company did not have any trade receivables that are eligible for submission to the OSLTF for reimbursement.

Labor Concentrations

As of December 31, 2019, approximately 523 of our employees (approximately 14% of our employees), were covered by collective bargaining agreements with various labor unions. Approximately 37% of these employees are covered by collective bargaining agreements that expire within one year of December 31, 2019.

NOTE 10. RECEIVABLES

Receivables as of December 31, 2019 and 2018 consisted of the following:

$s in thousands	2019	2018
Trade	$ 196,593	$ 118,909
Unbilled revenue	54,727	26,538
Other	7,000	2,241
Total receivables	258,320	147,688
Allowance for doubtful accounts	(3,010)	(2,998)
Receivables, net	$ 255,310	$ 144,690

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 2019, 2018 and 2017 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, 2019	$ 2,998	$ 226	$ (439)	$ 225	$ 3,010
Year ended December 31, 2018	$ 2,796	$ 436	$ (213)	$ (21)	$ 2,998
Year ended December 31, 2017	$ 2,334	$ 704	$ (255)	$ 13	$ 2,796

NOTE 11. PROPERTY AND EQUIPMENT

Property and equipment as of December 31, 2019 and 2018 consisted of the following:

$s in thousands	2019	2018
Cell development costs	$ 174,561	$ 146,155
Land and improvements	52,909	50,481
Buildings and improvements	109,580	91,358
Railcars	17,299	17,299
Vehicles, vessels and other equipment	317,472	154,014
Construction in progress	61,537	14,554
Total property and equipment	733,358	473,861
Accumulated depreciation and amortization	(254,590)	(215,418)
Property and equipment, net	$ 478,768	$ 258,443

Depreciation and amortization expense was $41.4 million, $29.2 million and $28.3 million for the years ended December 31, 2019, 2018 and 2017, respectively.

NOTE 12. LEASES

We lease certain facilities, office space, land and equipment. Our lease payments are primarily fixed, but also include variable payments that are based on usage of the leased asset. Initial lease terms range from one to 15 years, and may include one or more options to renew, with renewal terms extending a lease up to 40 years. None of our renewal options are considered reasonably certain to be exercised. Provisions for residual value guarantees exist in some of our equipment leases, however amounts associated with these provisions are not material. Our leases do not include any material restrictive covenants.

Leases with an initial term of 12 months or less are not recorded on the balance sheet and expense is recognized on a straight-line basis over the lease term. We combine lease and non-lease components in our leases. We use the rate implicit in the lease, when available, to discount lease payments to present value. However, many of our leases do not provide a readily determinable implicit rate and we estimate our incremental borrowing rate to discount payments based on information available at lease commencement.

Lease assets and liabilities consisted of the following:

$s in thousands	December 31, 2019
Assets:	
Operating right-of-use assets (1)	$ 57,396
Finance right-of-use assets (2)	20,499
Total	$ 77,895
Liabilities:	
Current:	
Operating (3)	$ 17,317
Finance (4)	4,128
Long-term:	
Operating (5)	39,954
Finance (6)	16,308
Total	$ 77,707

(1) Included in Operating lease assets in the Company’s consolidated balance sheets.
(2) Included in Property and equipment, net in the Company’s consolidated balance sheets. Finance right-of-use assets are recorded net of accumulated amortization of $2.7 million as of December 31, 2019.

(3) Included in Current portion of operating lease liabilities in the Company's consolidated balance sheets.
(4) Included in Accrued liabilities in the Company's consolidated balance sheets.
(5) Included in Long-term operating lease liabilities in the Company's consolidated balance sheets.
(6) Included in Other long-term liabilities in the Company's consolidated balance sheets.

Lease expense consisted of the following:

$s in thousands	Year Ended December 31, 2019
Operating lease cost (1)	$ 9,144
Finance lease cost:	
Amortization of leased assets (2)	1,641
Interest on lease liabilities (3)	332
Total	$ 11,117

(1) Included in Direct operating costs and Selling, general, and administrative expenses in the Company's consolidated statements of operations. Operating lease cost includes short-term leases, excluding expenses relating to leases with a term of one month or less, which are not material. Operating lease cost excludes variable lease costs which are not material.
(2) Included in Direct operating costs in the Company's consolidated statements of operations.
(3) Included in Interest expense in the Company's consolidated statements of operations.

Supplemental cash flow information related to our leases is as follows:

$s in thousands	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:	
Operating cash flows from operating leases	$ 8,656
Operating cash flows from finance leases	332
Financing cash flows from finance leases	1,298
Non-cash investing and financing activities:	
Right-of-use assets obtained in exchange for new operating lease liabilities	$ 7,380
Right-of-use assets obtained in exchange for new finance lease liabilities	2,481

Other information related to our leases is as follows:

	December 31, 2019
Weighted-average remaining lease term (years):	
Operating leases	4.4
Finance leases	4.5
Weighted-average discount rate:	
Operating leases	3.80 %
Finance leases	5.07 %

The Company's maturity analysis of its lease liabilities as of December 31, 2019 is as follows:

$s in thousands	Operating Leases	Finance Leases	Total
2020	$ 18,007	$ 4,742	$ 22,749
2021	14,935	4,699	19,634
2022	11,210	4,315	15,525
2023	8,643	4,400	13,043
2024	4,885	2,714	7,599
Thereafter	5,025	2,853	7,878
Total	$ 62,705	$ 23,723	$ 86,428
Less: Interest	5,434	3,287	8,721
Present value of lease liabilities	$ 57,271	$ 20,436	$ 77,707

As previously disclosed in the Company's 2018 Form 10-K, which followed the lease accounting standards in effect prior to adoption of ASC 842, future minimum lease payments on non-cancellable operating leases as of December 31, 2018 were 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 and $7.6 million for the years ended December 31, 2018 and 2017, respectively.

NOTE 13. GOODWILL AND INTANGIBLE ASSETS

Changes in goodwill for the years ended December 31, 2019 and 2018 were as follows:

	Environmental Services		Field & Industrial Services		
$s in thousands	Gross	Accumulated Impairment	Gross	Accumulated Impairment	Total
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
NRC Merger	308,856	—	239,629	—	548,485
US Ecology Sarnia acquisition	—	—	7,668	—	7,668
Winnie purchase price allocation adjustment	2,863	—	—	—	2,863
Foreign currency translation	736	—	51	—	787
Balance at December 31, 2019	$ 475,271	$ (6,870)	$ 298,579	$ —	$ 766,980

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.

The result of the annual assessment of goodwill undertaken in the fourth quarter of 2019 indicated that the fair value of each of our reporting units was in excess of its respective carrying value.

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. 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 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.

Intangible assets as of December 31, 2019 and 2018 consisted of the following:

	2019			2018		
$s in thousands	**Cost**	**Accumulated Amortization**	**Net**	**Cost**	**Accumulated Amortization**	**Net**
Amortizing intangible assets:						
Permits, licenses and lease	$ 174,339	$ (18,707)	$ 155,632	$ 164,840	$ (14,804)	$ 150,036
Customer relationships	333,090	(35,254)	297,836	99,241	(25,676)	73,565
Technology - formulae and processes	6,964	(2,013)	4,951	6,672	(1,714)	4,958
Customer backlog	3,652	(2,022)	1,630	3,652	(1,656)	1,996
Tradename	10,390	(4,832)	5,558	4,290	(4,290)	—
Developed software	2,895	(1,884)	1,011	2,884	(1,581)	1,303
Non-compete agreements	5,455	(1,694)	3,761	1,542	(875)	667
Internet domain and website	536	(156)	380	536	(128)	408
Database	388	(191)	197	384	(167)	217
Total amortizing intangible assets	537,709	(66,753)	470,956	284,041	(50,891)	233,150
Non-amortizing intangible assets:						
Permits and licenses	103,816	—	103,816	46,391	—	46,391
Tradename	130	—	130	125	—	125
Total intangible assets	$ 641,655	$ (66,753)	$ 574,902	$ 330,557	$ (50,891)	$ 279,666

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.

The result of the annual assessment of non-amortizing intangible assets undertaken in the fourth quarter of 2019 indicated no impairment charges were required.

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 November 1, 2019, the Company completed the NRC Merger and recorded $548.5 million of goodwill, $246.2 million of amortizing intangible assets (consisting primarily of customer relationships) and $57.4 million of non-amortizing intangible assets (consisting of permits and licenses) as a result of the acquisition. See Note 5 for additional information.

On August 1, 2019, the Company acquired US Ecology Sarnia and recorded $7.7 million of goodwill and $6.2 million of amortizing intangible assets (consisting primarily of customer relationships) as a result of the acquisition. See Note 5 for additional information.

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 $16.4 million of goodwill and $66.5 million of amortizing intangible assets (consisting of permits and customer relationships) as a result of the acquisition. See Note 5 for additional information.

Amortization expense relating to intangible assets was $15.5 million, $9.6 million and $9.9 million for the years ended December 31, 2019, 2018 and 2017, 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**
2020	$ 36,737
2021	33,948
2022	30,840
2023	30,684
2024	30,302
Thereafter	308,445
	$ 470,956

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. 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 $3.0 million, $2.5 million and $2.1 million in 2019, 2018 and 2017, respectively.

The Company also maintains 401(k) savings and retirement plans ("the NRC Plans") for the employees that joined the Company through the NRC Merger. Participants may contribute a percentage of salary up to the IRS limitations. The Company contributes a matching contribution equal to 50% of participant contributions up to 6% of eligible compensation. The deferred amount cannot exceed 25% of the annual aggregate salaries of those employees eligible for participation. The Company contributed matching contributions to the NRC Plans of $325,000 in 2019.

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 9.0% 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 $692,000, $653,000 and $556,000 to the SPP in 2019, 2018 and 2017, respectively.

Multi-Employer Defined Benefit Pension Plans

Certain of the Company's wholly-owned subsidiaries participate in a total of five 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**	**2019**	**2018**
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 2019 and 2018. The Company also contributed $281,000 and $242,000 to other multi-employer plans in 2019 and 2018, respectively, which are excluded from the table above as they are not individually significant.

Based on information as of April 30, 2019 and 2018, 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 2019 and 2018 plan years.

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, 2019 and 2018.

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 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. We also maintain surety bonds for closure costs associated with our energy waste landfills in Texas. Under the terms of our waste disposal permits for these landfills, financial security must be provided to the Railroad Commission of Texas in an amount necessary to close the facility. At December 31, 2019 we had $12.8 million in commercial surety bonds dedicated for closure obligations at our operating and non-operating disposal facilities.

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, 2019. 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, 2019 approximated 5.9%.

Changes to reported closure and post-closure obligations for the years ended December 31, 2019 and 2018, were as follows:

$s in thousands	2019	2018
Closure and post-closure obligations, beginning of year	$ 78,363	$ 76,088
Liabilities assumed in the NRC Merger	5,691	—
Accretion expense	4,388	3,707
Payments	(1,913)	(1,388)
Adjustments	(221)	99
Foreign currency translation	75	(143)
Closure and post-closure obligations, end of year	86,383	78,363
Less current portion	(2,152)	(2,266)
Long-term portion	$ 84,231	$ 76,097

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 2019 were primarily attributable to a $393,000 decrease in closure and post-closure obligations at our Robstown, Texas operating facility and a $272,000 decrease in closure and post-closure obligations at our Blainville, Québec, Canada operating facility due to changes in closure timing, partially offset by a $422,000 increase to the obligation for our Blainville, Québec, Canada operating facility associated with a newly-constructed disposal cell. 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.

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, 2019 and 2018 were as follows:

$s in thousands	2019	2018
Net closure and post-closure asset, beginning of year	$ 19,510	$ 20,495
Asset acquired in the NRC Merger	4,857	—
Additions or adjustments to closure and post-closure asset	(221)	99
Amortization of closure and post-closure asset	(1,298)	(805)
Foreign currency translation	36	(279)
Net closure and post-closure asset, end of year	$ 22,884	$ 19,510

NOTE 16. DEBT

Long-term debt consisted of the following:

	December 31,	
$s in thousands	2019	2018
Revolving credit facility	$ 327,000	$ 364,000
Term loan	450,000	—
Unamortized term loan discount and debt issuance costs	(7,799)	—
Total debt	769,201	364,000
Current portion of long-term debt	(3,359)	—
Long-term debt	$ 765,842	$ 364,000

Future maturities of long-term debt, excluding unamortized discount and debt issuance costs, as of December 31, 2019 consisted of the following:

$s in thousands	Maturities
2020	$ 4,500
2021	4,500
2022	4,500
2023	4,500
2024	331,500
Thereafter	427,500
	$ 777,000

Credit Agreement

On April 18, 2017, Predecessor US Ecology, a wholly-owned subsidiary of the Company, entered into a new senior secured credit agreement (the "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 $40.0 million sublimit for the issuance of swingline loans used to fund short-term working capital requirements. The Credit Agreement also contains an accordion feature whereby Predecessor US Ecology 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 described below, the Credit Agreement was amended in November 2019 in connection with the NRC Merger. In addition, as a result of the consummation of the NRC Merger, the borrower under the Credit Facility is Predecessor US Ecology, a wholly-owned subsidiary of the Company. In connection with Predecessor US Ecology's entry into the Credit Agreement, Predecessor US Ecology 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. Predecessor US Ecology 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 non-cash charge of $5.5 million to interest expense in 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 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 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%

During the year ended December 31, 2019, the effective interest rate on the Revolving Credit Facility, after giving effect to the impact of our interest rate swap and the amortization of the loan discount and debt issuance costs, was 3.98%. Interest only payments are due either quarterly or on the last day of any interest period, as applicable.

In October 2014, Predecessor US Ecology entered into an interest rate swap agreement, effectively fixing the interest rate on $150.0 million, or 46%, of the Revolving Credit Facility borrowings as of December 31, 2019. 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 Predecessor US Ecology'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.

Predecessor US Ecology 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 Predecessor US Ecology's total net leverage ratio (as defined in the Credit Agreement). The maximum letter of credit capacity under the Revolving Credit Facility is $75.0 million and the 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, 2019, there were $327.0 million of revolving credit loans outstanding on the Revolving Credit Facility. These revolving credit loans are due upon the earliest to occur of (a) November 1, 2024 (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 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.

Predecessor US Ecology 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 $40.0 million swingline loan sublimit under the Revolving Credit Facility. Predecessor US Ecology's revolving credit loans outstanding under the Revolving Credit Facility are not subject to repayment through the Sweep Arrangement. As of December 31, 2019, there were no amounts outstanding subject to the Sweep Arrangement.

As of December 31, 2019, the availability under the Revolving Credit Facility was $166.3 million with $6.7 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.

Predecessor US Ecology 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 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 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 Credit Agreement), in an amount equal to such excess. Subject to certain exceptions, the 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 Predecessor US Ecology and its domestic subsidiaries on April 18, 2017, Predecessor US Ecology's obligations under the 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 Predecessor US Ecology 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 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 Credit Agreement), among other things, amounts outstanding under the Credit Agreement may be accelerated and the commitments may be terminated.

The 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 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 4.00 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.

At December 31, 2019, we were in compliance with all of the financial covenants in the Credit Agreement.

Amendments to the Credit Agreement

On August 6, 2019, Predecessor US Ecology entered into the first amendment (the "First Amendment") to the Credit Agreement, by and among Predecessor US Ecology, the subsidiaries of Predecessor US Ecology party thereto, the lenders referred to therein and Wells Fargo, as issuing lender, swingline lender and administrative agent. Effective November 1, 2019, the First Amendment, among other things, extended the expiration of the Revolving Credit Facility to November 1, 2024, permitted the issuance of a $400.0 million incremental term loan to be used to refinance the indebtedness of NRC and pay related transaction expenses in connection with the NRC Merger, modified the accordion feature allowing Predecessor US Ecology to request up to the greater of (x) $250.0 million and (y) 100% of consolidated EBITDA plus certain additional amounts, increased the sublimit for the issuance of swingline loans to $40.0 million and increased the maximum consolidated total net leverage ratio to 4.00 to 1.00.

On November 1, 2019, Predecessor US Ecology entered into the lender joinder agreement and second amendment (the "Second Amendment") to the Credit Agreement. Effective November 1, 2019, the Second Amendment, among other things, amended the Credit Agreement to increase the capacity for incremental term loans by $50.0 million and provided for Wells Fargo lending $450.0 million in incremental term loans to Predecessor US Ecology to pay off the existing debt of NRC in connection with the NRC Merger, to pay certain fees, costs and expenses incurred in connection with the NRC Merger and to repay outstanding borrowings under the Revolving Credit Facility. The seven-year incremental term loan matures November 1, 2026, requires principal repayment of 1% annually, and bears interest at LIBOR plus 2.25% or a base rate plus 1.25% (with a step-up to LIBOR plus 2.50% or a base rate plus 1.50% in the event that US Ecology credit ratings are not BB (with a stable or better outlook) or better from S&P and Ba2 (with a stable or better outlook) or better from Moody's). The effective interest rate on the term loan, including the impact of the amortization of debt issuance costs, was 4.45% from the issue date through December 31, 2019.

2014 Credit Agreement

On June 17, 2014, Predecessor US Ecology 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 Predecessor US Ecology'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 Predecessor US Ecology'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	2019	2018	2017
Domestic	$ 30,706	$ 46,147	$ 26,051
Foreign	19,093	18,711	16,919
Income before income taxes	$ 49,799	$ 64,858	$ 42,970

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

$s in thousands	2019	2018	2017
Current:			
U.S. Federal	$ 3,120	$ 2,239	$ 11,157
State	1,547	2,368	2,482
Foreign	5,426	4,746	5,398
Total current	10,093	9,353	19,037
Deferred:			
U.S. Federal	5,977	5,675	(27,029)
State	714	172	2,323
Foreign	(125)	63	(726)
Total deferred	6,566	5,910	(25,432)
Income tax (benefit) expense	$ 16,659	$ 15,263	$ (6,395)

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. As of December 22, 2018, we completed our accounting for the income tax effects of the Tax Act as of the enactment date, 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 completion of the Company's accounting for the enactment of the Tax Act reflects, among other things, (i) the issuance of guidance by the U.S. Treasury regarding provisions of the Tax Act, (ii) certain elections and accounting policy decisions pursuant to the Tax Act, (iii) adjustments to historic foreign earnings and profits or the associated tax credit pools which are significant factors in the calculation of the repatriation tax, and (iv) changes in interpretations and assumptions that we have made. We note that final guidance and regulations surrounding the implementation of all provisions in the Tax Act

have not been issued to date. This guidance, once issued, may materially affect our conclusions regarding the net related effects of the Tax Act on our financial statements.

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

	2019	2018	2017
Taxes computed at federal statutory rate	21.0 %	21.0 %	35.0 %
Impairment and loss on divestiture	—	0.5	4.4
State income taxes (net of federal income tax benefit)	5.7	5.1	2.9
Share-based compensation	(0.4)	(1.3)	—
Research and development credits	(0.8)	(2.0)	—
Non-deductible transaction costs	3.4	—	—
Global intangible low taxed income	1.1	—	—
Tax Cuts and Jobs Act of 2017	—	(0.3)	(55.4)
Foreign rate differential	2.5	1.7	(2.9)
State deferred rate differential	(1.6)	—	—
Other	2.6	(1.2)	1.1
	33.5 %	23.5 %	(14.9)%

The components of the total net deferred tax assets and liabilities as of December 31, 2019 and 2018 consisted of the following:

$s in thousands	2019	2018
Deferred tax assets:		
Net operating losses	$ 14,121	$ —
Operating leases	14,034	—
Foreign tax credit and capital loss carry forwards	4,705	5,165
Accruals, allowances and other	8,966	5,041
Environmental compliance and other site related costs	9,203	8,580
Business interest expense	6,498	—
Unrealized foreign exchange gains and losses	962	1,550
Total deferred tax assets	58,489	20,336
Less: valuation allowance	(4,965)	(4,791)
Net deferred tax assets	53,524	15,545
Deferred tax liabilities:		
Property and equipment	(53,540)	(26,145)
Intangible assets	(112,446)	(51,081)
Operating leases	(14,034)	—
Unrealized gains and losses on interest rate hedge	—	(241)
Other	(1,849)	(1,284)
Total deferred tax liabilities	(181,869)	(78,751)
Net deferred tax liability	$ (128,345)	$ (63,206)

All deferred tax assets and liabilities are recorded in Deferred income taxes, net on the consolidated balance sheets as of December 31, 2019 and 2018.

The Company acquired U.S. federal and state net operating loss and business interest expense carryforwards of NRC upon the acquisition of that entity in November 2019, subject to the ownership change limitations. Acquired U.S. federal net operating losses, state net operating losses, and business interest expense carryforwards from NRC total approximately $95.1 million, $43.8 million and $38.2 million, respectively, net of amounts unavailable due to previous ownership change limitations, which are included in the total Net operating losses and Business interest expense above.

Utilization of the Company's net operating loss and business interest expense carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state

provisions. Such an annual limitation could result in the expiration or elimination of the net operating loss and business interest expense carryforwards before utilization. Management believes that the limitation will not limit utilization of the carryforwards prior to their expiration based on the historic profitability of the Company and certain favorable adjustments available to the annual limitation calculations.

As of December 31, 2019, we had approximately $92.3 million, $2.7 million, and $42.4 million of federal, foreign, and state and local net operating losses (“NOLs”), respectively. A portion of the federal NOLs begin to expire in 2029 and the remaining federal NOLs have no expiration date. Foreign NOLs are indefinite lived and therefore have no expiration date. State and local NOLs expire between 2020 and 2039. 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. At December 31, 2019 and 2018, we maintained a valuation allowance of approximately $260,000 and $73,000, respectively, for state and local NOLs that are not expected to be utilizable prior to expiration.

The valuation allowance as of December 31, 2019 and 2018 was primarily related to foreign tax credit and capital loss carryforwards that, in the judgment of management, were not more likely than not to be realized. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets depends on the generation of future taxable income during the periods in which those temporary differences are deductible. Management considers the scheduled reversal of deferred tax liabilities (including the impact of available carryback and carryforward periods), projected taxable income, and tax-planning strategies in making this assessment. The net valuation allowance increased $174,000 for the year ended December 31, 2019 compared to December 31, 2018.

Changes to unrecognized tax benefits for the years ended December 31, 2019, 2018 and 2017, were as follows:

$s in thousands	2019	2018	2017
Unrecognized tax benefits, beginning of year	$ 555	$ —	$ —
Gross increases - tax positions in prior period	8,088	494	—
Gross decreases - tax positions in prior period	(9)	—	—
Gross increases - tax positions in current period	52	61	—
Settlements	(284)	—	—
Lapse of statute of limitations	(67)	—	—
Unrecognized tax benefits, end of year	$ 8,335	$ 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. At December 31, 2019, the total amount of unrecognized tax benefits was $8.3 million, of which $236,000, if recognized, would favorably impact our future earnings. The remaining $8.1 million of which is related to the acquired NRC net operating losses and is recorded as a reduction to our net operating losses deferred tax asset. We do not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. Accrued interest and penalties related to unrecognized tax benefits are recorded as interest expense and selling, general and administrative expenses, respectively. The total accrued interest related to unrecognized tax benefits as of December 31, 2019 and December 31, 2018 were not significant. There is no accrual for penalties.

As of December 31, 2019, the Company had accumulated undistributed earnings generated by our foreign subsidiaries of approximately $49.0 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.

The Company files income tax returns in the U.S. Federal and various state, local and foreign jurisdictions. The Company is subject to examination by the IRS for tax years 2016 through 2019. The 2014 through 2019 state tax returns are subject to examination by state tax authorities. US Ecology Sarnia is currently under examination by the Canadian Revenue

Agency for the pre-acquisition years 2016 and 2017. The tax years 2015 through 2019 remain subject to examination in our significant foreign jurisdictions. The Company does not anticipate any material change as a result of any current examinations in progress.

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.

In December 2010, National Response Corporation, a subsidiary of NRC acquired by the Company in the NRC Merger, was named as one of many "Dispersant Defendants" in multi-district litigation, arising out of the explosion of the BP Deepwater Horizon ("BP") oil rig, filed in the U.S. District Court for the Eastern District of Louisiana ("*In re Deepwater Horizon*" or the "MDL"). The claims against National Response Corporation, and other "Dispersant Defendants," were brought by workers and others who alleged injury arising from post-explosion clean–up efforts, including particularly the use of certain chemical dispersants. In January 2013, the Court approved a Medical Benefits Class Action Settlement, which, among other things, provided for a "class wide" settlement as well as a release of claims against Dispersant Defendants, including National Response Corporation. Further, National Response Corporation successfully moved the District Court to dismiss all claims against it based on derivative immunity, as it was acting at the direction of the U.S. Government. In early 2018, BP began asserting an alleged contractual right of indemnity against National Response Corporation and others in post-settlement lawsuits brought by persons who had either chosen not to participate in the class-wide agreement or whose injuries were allegedly manifest after the period covered by the claim submission process. The Company has advised BP that it considers the attempt to bring National Response Corporation back into previously settled litigation to be improper and has moved for a declaratory judgment that it owes no indemnity or contribution to BP, raising various arguments, including BP's own actions and conduct over the preceding nine years with respect to these claims (including its failure to seek indemnity) and the resultant prejudice to National Response Corporation, BP's waiver of any indemnity, and the Court's prior finding that National Response Corporation is entitled to derivative immunity. In response, BP asserted counterclaims against National Response Corporation for a declaratory judgment that National Response Corporation must indemnify BP under certain circumstances and for unjust enrichment. National Response Corporation successfully moved to dismiss the unjust enrichment claim. The Court has also ordered the parties to file simultaneous judgment on the pleadings briefs in February 2020, and any oppositions by March 16, 2020. As such, the Company is currently unable to estimate the range of possible losses associated with this proceeding. However, the Company also believes that, were it deemed to have liability arising out of or related to BP's indemnity claims, such liability would be covered by an indemnity by SEACOR Holdings Inc., the former owner of National Response Corporation, in favor of National Response Corporation and its affiliates.

In January 2019, Kevin Sullivan, a driver for NRC from May 1, 2018 to August 22, 2018 filed a class action complaint against NRC in California Superior Court (*Kevin Sullivan et. Al. v. National Response Corp., NRC Environmental Services, Inc. and Paul Taveira et al.*) alleging the failure by the defendants to provide meal and rest breaks required by California law and requiring employees to work off the clock. Mr. Sullivan's complaint also asserted a claim under the California Labor Code Private Attorneys General Act ("PAGA"), which permits an employee to assert a claim for violations of certain California Labor Code provisions on behalf of all aggrieved employees to recover statutory penalties that could be recovered by the State of California. On April 17, 2019, NRC filed a motion to compel individual arbitration, strike Mr. Sullivan's class action claims and stay the PAGA claim pending the outcome of Mr. Sullivan's individual claim; the Court subsequently granted NRC's motion to compel. In response, Mr. Sullivan amended his complaint to dismiss the class claims without prejudice and proceed solely with the PAGA claim. Unlike class claims, PAGA claims cannot be waived by an employee's agreement to individual arbitration; therefore, the case is proceeding as a pure representative PAGA

claim only, absent any individual or class claims against the Company or NRC. While the Company believes that Mr. Sullivan's claims lack merit, the Company is currently unable to estimate the range of possible losses associated with this proceeding.

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 and regained additional capabilities throughout the remainder of 2019. In addition to initiating and conducting our own investigation into the incident, we fully cooperated with IDEQ, the USEPA and OSHA to support their comprehensive and independent investigations of the incident. On January 10, 2020, we entered into a settlement agreement with OSHA settling a complaint made by OSHA relating to the incident for $50,000. On January 28, 2020, the Occupational Safety and Health Review Commission issued an order terminating the proceeding relating to such OSHA complaint. We have not otherwise 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.

The Company is actively working with its insurance companies on comprehensive property and business interruption insurance claims related to the incident at our Grand View, Idaho facility in the fourth quarter of 2018. The Company received $12.7 million of property-related insurance payments in 2019 and recognized $12.4 million of property-related insurance recovery gains during 2019. The Company has also recognized insurance recoveries of $5.0 million in 2019 related to expenses incurred to continue limited operations at the facility and $4.7 million in 2019, related to lost profits as a result of lost business or customers.

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.

NOTE 19. EQUITY

Equity-Based Purchase Consideration

Pursuant to the Merger Agreement, on November 1, 2019 the Company paid $626.5 million of the purchase price in equity-based consideration comprising 9,337,949 newly-issued shares of US Ecology common stock, 3,772,753 replacement warrants, 118,239 replacement restricted stock units and 29,400 replacement stock options.

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. 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. On December 30, 2019, the Company's Board of Directors authorized the repurchase of $25.0 million of the Company's outstanding warrants (such dollar amount considered in the aggregate with the dollar amount of shares of common stock repurchased by the Company, if any, under the Company's share repurchase program) as part of the Company's share repurchase program. Repurchases may be made from time to time in the open market or through privately negotiated transactions. The timing of any repurchases of common stock or warrants will be based upon prevailing market conditions and other factors. The Company may from time to time also consider other options for repurchasing some or all of its warrants, including but not limited to a tender offer for all of the outstanding warrants. The Company did not repurchase any shares of common stock under the repurchase program during the year ended December 31, 2019.

Omnibus Incentive Plan

On May 27, 2015, the stockholders of Predecessor US Ecology approved the Omnibus Incentive Plan (as amended, "Omnibus Plan"), which was approved by Predecessor US Ecology's Board of Directors on April 7, 2015. In connection with the closing of the NRC Merger, the Company assumed the Omnibus Plan by adopting the Amended and Restated US Ecology, Inc. Omnibus Incentive Plan for the purposes of issuing replacement awards to award recipients under the Omnibus Plan pursuant to the Merger Agreement and for the issuance of additional awards in the future.

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.

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, 2019, 725,966 shares of common stock remain available for grant under the Omnibus Plan.

Subsequent to the approval of the Omnibus Plan by Predecessor US Ecology in May 2015, we stopped granting equity awards under our 2008 Stock Option Incentive Plan ("2008 Stock Option Plan"). However, in connection with the closing of the NRC Merger, the Company assumed the 2008 Stock Option Plan for the purpose of issuing replacement awards to award recipients thereunder and will remain in effect solely for the settlement of awards granted under such plan. No shares that are reserved but unissued under the 2008 Stock Option Plan or that are outstanding under the 2008 Stock Option Plan and reacquired by the Company for any reason will be available for issuance under the Omnibus Plan.

In addition, in connection with the closing of the NRC Merger, the Company assumed the NRC Group Holdings Corp. 2018 Equity Incentive Plan previously maintained by NRC by adopting the Amended and Restated US Ecology, Inc. 2018 Equity and Incentive Compensation Plan. Like the 2008 Stock Option Plan, the NRC Group Holdings Corp. 2018 Equity Incentive Plan was assumed by the Company solely for the purpose of issuing replacement awards to award recipients pursuant to the Merger Agreement, and no future grants may be made under the 2018 Equity and Incentive Compensation 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 in 2018 and 2017. The actual number of 2018 and 2017 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. The total number of PSUs each participant is eligible to earn ranges from 0% to 300% of the target number of PSUs granted in 2019. The actual number of 2019 PSUs that will vest and be settled in shares is determined based on achievement of certain Company financial performance metrics and 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, 2018	39,200	$ 55.48
Granted	17,111	58.20
Vested	(13,600)	41.22
Outstanding as of December 31, 2019	42,711	$ 61.11

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 2019, 2018 and 2017 was $58.20, $63.56. and $62.45 per unit, respectively. Assumptions used in the Monte Carlo simulation to calculate the fair value of the PSUs granted are as follows:

	2019	2018	2017
Stock price on grant date	$ 58.40	$ 51.00	$ 49.15
Expected term	3.0 years	3.0 years	3.0 years
Expected volatility	30 %	30 %	31 %
Risk-free interest rate	2.5 %	2.0 %	1.5 %
Expected dividend yield	1.1 %	1.4 %	1.5 %

During 2019, 13,600 PSUs vested and PSU holders earned 19,414 shares of the Company's common stock.

Stock Options

We have stock option awards outstanding under the 2008 Stock Option Plan and the Omnibus Plan. Stock options expire ten years from the date of grant and generally vest over a period of three years from the date of grant. Vesting requirements for non-employee directors are contingent on attending a minimum of 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, 2018	236,503	$ 44.93		
Granted	70,500	58.75		
Exercised	(11,875)	45.42		
Cancelled, expired or forfeited	(1,540)	43.55		
Outstanding as of December 31, 2019	293,588	$ 48.23	$ 2,841	6.1
Exercisable as of December 31, 2019	212,527	$ 44.89	$ 2,767	5.2

The weighted average grant date fair value of all stock options granted during 2019, 2018 and 2017 was $14.26, $11.64 and $10.92 per share, respectively. The total intrinsic value of stock options exercised during 2019, 2018 and 2017 was $152,000, $6.6 million and $1.0 million, respectively. During 2019, option holders tendered 3,640 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 option grants are as follows:

	2019	2018	2017
Expected life	2.7 years	3.8 years	3.8 years
Expected volatility	30 %	30 %	31 %
Risk-free interest rate	2.1 %	2.0 %	1.5 %
Expected dividend yield	1.2 %	1.5 %	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.

A summary of our restricted stock activity is as follows:

	Shares	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2018	74,988	$ 46.74
Granted	28,900	62.59
Vested	(39,234)	43.77
Outstanding as of December 31, 2019	64,654	$ 55.62

The total fair value of restricted stock vested during 2019, 2018 and 2017 was $2.5 million, $2.2 million and $868,000, 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, 2018	66,785	$ 53.77
Granted	151,263	60.92
Vested	(85,014)	58.35
Cancelled, expired or forfeited	(1,835)	52.87
Outstanding as of December 31, 2019	131,199	$ 59.05

The total fair value of restricted stock units vested during 2019, 2018 and 2017 was $4.8 million, $967,000 and $314,000, respectively.

Treasury Stock

During 2019 prior to the NRC Merger, Predecessor US Ecology issued 8,900 shares of restricted stock under the Omnibus Plan, from our treasury stock at an average cost of $57.77 per share and repurchased 14,462 shares of the Predecessor US Ecology's common stock in connection with the net share settlement of employee equity awards at an average cost of $63.34 per share. In connection with the closing of the NRC Merger, the outstanding treasury stock of Predecessor US Ecology was cancelled.

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

$s in thousands	2019	2018	2017
Share-based compensation from:			
Stock options	$ 575	$ 727	$ 1,141
Restricted stock	1,662	1,590	1,505
Restricted stock units (1)	6,193	1,324	716
Performance stock units	831	725	571
Total share-based compensation	9,261	4,366	3,933
Income tax benefit	(3,098)	(1,027)	(1,403)
Share-based compensation, net of tax	$ 6,163	$ 3,339	$ 2,530

(1) 2019 share-based compensation from restricted stock units includes $3.7 million of compensation expense related to the accelerated vesting of restricted stock unit awards upon the termination of former employees of NRC subsequent to the NRC Merger in accordance with change-in-control provisions of their respective employment agreements. The accelerated vesting and resulting share-based compensation expense recognition was attributable entirely to the NRC Merger therefore the Company has classified this portion of share-based compensation expense as business development and integration expenses within Selling, general and administrative expenses in our consolidated statements of operations.

The tax benefits from stock options exercised during 2019, 2018 and 2017 were $321,000, $1.4 million and $129,000, respectively.

Unrecognized Share-Based Compensation Expense

As of December 31, 2019, there was $8.3 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.

Warrants

At December 31, 2019, there were a total of 3,772,753 warrants outstanding. Each warrant entitles the holder thereof to purchase one share of common stock at a price of $58.67 per share, subject to certain adjustments. The warrants may be exercised only for a whole number of shares of common stock. No fractional shares will be issued upon exercise of the warrants. The warrants will expire at 5:00 p.m. New York City time on October 17, 2023, or earlier upon redemption or liquidation. The warrants are listed on the Nasdaq Capital Market under the symbol "ECOLW". The Company may call the warrants for redemption, in whole and not in part, at a price of $0.01 per warrant, upon not less than 30 days' prior written notice of redemption to each warrant holder, if, and only if, the reported last sale price of Common Stock equals or exceeds $91.84 per share on each of 20 trading days within the 30 trading-day period ending on the business day prior to the date on which notice of the redemption is given and provided that there is an effective registration statement covering the shares of Common Stock issuable on exercise of the warrants and subject to the satisfaction of certain other requirements. The warrants were determined to be equity classified in accordance with ASC 815, *Derivatives and Hedging*.

NOTE 20. EARNINGS PER SHARE

	2019		2018		2017	
$s and shares in thousands, except per share amounts	**Basic**	**Diluted**	**Basic**	**Diluted**	**Basic**	**Diluted**
Net income	$ 33,140	$ 33,140	$ 49,595	$ 49,595	$ 49,365	$ 49,365
Weighted average basic shares outstanding	23,521	23,521	21,888	21,888	21,758	21,758
Dilutive effect of share-based awards and warrants		228		159		144
Weighted average diluted shares outstanding		23,749		22,047		21,902
Earnings per share	$ 1.41	$ 1.40	$ 2.27	$ 2.25	$ 2.27	$ 2.25
Anti-dilutive shares excluded from calculation		90		46		103

NOTE 21. SEGMENT REPORTING

Financial Information by Segment

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 specialty material management services including transportation, recycling, treatment and disposal of hazardous, non-hazardous, E&P and radioactive waste at Company-owned landfill, wastewater, deep-well injection and other treatment facilities.

Field & Industrial Services—This segment provides specialty field services and total waste management solutions to commercial and industrial facilities and to government entities through our 10-day transfer facilities and at customer sites, both domestic and international. Specialty field services include standby services, emergency response, industrial cleaning and maintenance, remediation, lab packs, retail services, transportation, and other services. Total waste management services include on-site management, waste characterization, transportation and disposal of non- hazardous and hazardous waste.

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, 2019, 2018 and 2017 is as follows:

	2019			
$s in thousands	**Environmental Services**	**Field & Industrial Services**	**Corporate**	**Total**
Revenue	$ 453,107	$ 232,402	$ —	$ 685,509
Depreciation, amortization and accretion	$ 44,535	$ 15,007	$ 1,760	$ 61,302
Capital expenditures	$ 47,593	$ 5,986	$ 4,521	$ 58,100
Total assets	$ 1,290,304	$ 865,540	$ 75,400	$ 2,231,244

	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

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 property and

equipment impairment charges, non-cash goodwill and intangible asset impairment charges, gain on property insurance recoveries, business development and integration expenses and other income/expense. In 2019, we updated our Adjusted EBITDA definition to include adjustments for business development and integration expenses and gain on property insurance recoveries. Throughout this Annual Report on Form 10-K, our Adjusted EBITDA results for all periods presented have been recast to reflect these adjustments. 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;
- Adjusted EBITDA does not reflect our cash expenditures or future requirements for capital expenditures or contractual commitments;
- 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; and
- Adjusted EBITDA does not reflect our business development and integration expenses.

A reconciliation of Net income to Adjusted EBITDA for the years ended December 31, 2019, 2018 and 2017 is as follows:

$s in thousands	2019	2018	2017
Net income	$ 33,140	$ 49,595	$ 49,365
Income tax expense (benefit)	16,659	15,263	(6,395)
Interest expense	19,239	12,130	18,157
Interest income	(605)	(215)	(62)
Foreign currency (gain) loss	733	(55)	(516)
Other income	(455)	(2,630)	(791)
Property and equipment impairment charges	25	—	—
Goodwill and intangible asset impairment charges	—	3,666	8,903
Depreciation and amortization of plant and equipment	41,423	29,207	28,302
Amortization of intangible assets	15,491	9,645	9,888
Share-based compensation	5,544	4,366	3,933
Accretion and non-cash adjustment of closure & post-closure liabilities	4,388	3,707	3,026
Gain on property insurance recoveries	(12,366)	(347)	(1,313)
Business development and integration expenses	26,150	748	500
Adjusted EBITDA	$ 149,366	$ 125,080	$ 112,997

Adjusted EBITDA, by operating segment, for the years ended December 31, 2019, 2018 and 2017 is as follows:

$s in thousands	2019	2018	2017
Environmental Services	$ 187,759	$ 160,179	$ 145,058
Field & Industrial Services	26,707	18,457	14,709
Corporate	(65,100)	(53,556)	(46,770)
Total	$ 149,366	$ 125,080	$ 112,997

Property and Equipment and Intangible Assets Outside of the United States

We provide services primarily in the United States, Canada and the EMEA region. Long-lived assets, comprised of property and equipment and intangible assets net of accumulated depreciation and amortization, by geographic location as of December 31, 2019 and 2018 are as follows:

$s in thousands	2019	2018
United States	$ 954,102	$ 480,322
Canada	70,691	57,787
EMEA	23,587	—
Other (1)	5,290	—
Total long-lived assets	$ 1,053,670	$ 538,109

(1) Includes Mexico, Asia Pacific, and Latin America and Caribbean geographical regions.

NOTE 22. QUARTERLY FINANCIAL DATA (unaudited)

The unaudited consolidated quarterly results of operations for 2019 and 2018 were as follows:

	Three-Months Ended				
$s and shares in thousands, except per share amounts	Mar. 31,	June 30,	Sept. 30,	Dec. 31,	Year
2019					
Revenue	$ 131,037	$ 155,802	$ 167,402	$ 231,268	$ 685,509
Gross profit	35,241	49,583	56,540	68,470	209,834
Operating income	14,936	25,534	23,211	5,030	68,711
Net income (loss)	8,043	15,491	13,070	(3,464)	33,140
Earnings (loss) per share—diluted (1)	$ 0.36	$ 0.70	$ 0.59	$ (0.12)	$ 1.40
Weighted average common shares outstanding used in the diluted earnings per share calculation	22,197	22,208	22,231	27,916	23,749
Dividends paid per share	$ 0.18	$ 0.18	$ 0.18	$ 0.18	$ 0.72
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

(1) Diluted earnings (loss) per common share for each quarter presented above is based on the respective weighted average number of common shares for the respective quarter therefore the sum of the diluted earnings (loss) per share for each respective quarter may not necessarily be equal to the full year diluted earnings (loss) per common share amount.

NOTE 23. SUBSEQUENT EVENT

On January 2, 2020, the Company declared a dividend of $0.18 per common share for stockholders of record on January 17, 2020. The dividend was paid from cash on hand on January 24, 2020 in an aggregate amount of $5.7 million. Holders of our warrants are not entitled to receive dividends.

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, 2019. 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.

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, 2019 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 NRC and W.I.S.E. Environmental Solutions Inc. ("US Ecology Sarnia"), 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 NRC's nor US Ecology Sarnia's internal control over financial reporting as of December 31, 2019. NRC's and US Ecology Sarnia's combined financial statements constitute approximately 17% of total assets (excluding goodwill and intangible assets), 11% of revenues and $8.6 million of operating loss of the consolidated financial statements of the Company as of and for the year ended December 31, 2019.

Our independent registered public accounting firm, Deloitte and Touche LLP, has audited the effectiveness of internal control over financial reporting as of December 31, 2019, 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

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 2020 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, 2019. 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, 2019, about the common stock that has been issued under all of our equity compensation plans, including the Omnibus Plan and the 2008 Stock Option 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 (a)(1)	Weighted-average exercise price of outstanding options, warrants and rights (b)(2)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	532,152	$ 48.23	725,966
Equity compensation plans not approved by security holders	—	—	—
Total	532,152	$ 48.23	725,966

(1) Includes 195,853 shares of unvested restricted stock and restricted stock unit awards and 42,711 performance stock unit awards outstanding under the Omnibus Plan.

(2) The weighted-average exercise price does not take into account the shares issuable upon vesting of outstanding restricted stock, restricted stock unit and performance 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 134 hereof.

ITEM 16. FORM 10-K SUMMARY

None

Index to Exhibits

Exhibit No.	Description	Company Form+	Incorporated by Reference from Registrant's
2.1	Agreement and Plan of Merger, dated as of June 23, 2019, by and among US Ecology, Inc., NRC Group Holdings Corp., US Ecology Parent, Inc., Rooster Merger Sub, Inc. and ECOL Merger Sub, Inc.	Predecessor US Ecology	Form 8-K filed 6-24-2019
3.1	Amended and Restated Certificate of Incorporation of US Ecology, Inc.	US Ecology, Inc.	Form 8-K filed 11-1-2019
3.2	Amended and Restated Bylaws of US Ecology, Inc.	US Ecology, Inc.	Form 8-K filed 11-1-2019
4.1	Assignment, Assumption and Amendment to the Warrant Agreement, dated as of November 1, 2019, by and between US Ecology, Inc., American Stock Transfer & Trust Company, LLC, NRC Group Holdings Corp. and Continental Stock Transfer & Trust Company.	US Ecology, Inc.	Form 8-K filed 11-1-2019
4.2	Description of Securities	US Ecology, Inc.	
10.1	Investor Agreement, dated June 23, 2019, by and among US Ecology, Inc., US Ecology Parent, Inc., JFL-NRC-SES Partners, LLC, JFL-NRC Holdings III, LLC, JFL-NRC Holdings IV, LLC and solely with respect to Section 4 thereof, NRC Group Holdings Corp.	Predecessor US Ecology	Form 8-K filed 6-24-2019
10.2	Registration Rights Agreement, dated June 23, 2019, by and among US Ecology, Inc., US Ecology Parent, Inc., JFL-NRC-SES Partners, LLC, JFL-NRC Holdings III, LLC and JFL-NRC Holdings IV, LLC	Predecessor US Ecology	Form 8-K filed 6-24-2019
10.3	Sublease, dated July 27, 2005, between the State of Washington and US Ecology Washington, Inc.	Predecessor US Ecology	Form 8-K filed 7-27-2005
10.4	Lease Agreement as amended between American Ecology Corporation and the State of Nevada	Predecessor US Ecology	2 Qtr 2007 Form 10-Q filed 8-7-2007
10.5	*Amended and Restated US Ecology, Inc. 2008 Stock Option Incentive Plan	US Ecology, Inc.	Form S-8 filed 11-1-2019
10.6	*Amended and Restated US Ecology Inc. Omnibus Incentive Plan	US Ecology, Inc.	Form S-8 filed 11-1-2019
10.7	*US Ecology, Inc. Nonqualified Deferred Compensation Plan	US Ecology, Inc.	Form S-8 filed 1-7-2020
10.8	*Form of Performance Stock Unit Award Agreement	Predecessor US Ecology	1st Qtr 2019 Form 10-Q filed 5-6-2019
10.9	*Form of Restricted Stock Award Agreement	Predecessor US Ecology	1st Qtr 2019 Form 10-Q filed 5-6-2019
10.10	*Form of Non-Statutory Stock Option Award Agreement	Predecessor US Ecology	1st Qtr 2019 Form 10-Q filed 5-6-2019
10.11	*Executive Employment Agreement, dated February 25, 2016, between Jeffrey R. Feeler and US Ecology, Inc.	Predecessor US Ecology	2015 Form 10-K
10.12	*Amended and Restated US Ecology, Inc. 2018 Equity and Incentive Compensation Plan	US Ecology, Inc.	Form S-8 filed 11-1-2019
10.13	*Employment Agreement, effective February 25, 2016, between the Company and Eric L. Gerratt	Predecessor US Ecology	2015 Form 10-K

Exhibit No.	Description	Company Form+	Incorporated by Reference from Registrant's
10.14	*Employment Agreement, effective February 25, 2016, between the Company and Steven D. Welling	Predecessor US Ecology	2015 Form 10-K
10.15	*Employment Agreement, effective February 25, 2016, between the Company and Simon G. Bell	Predecessor US Ecology	2015 Form 10-K
10.16	*Form of Indemnification Agreement between US Ecology, Inc. and each of the Company's Directors and Officers	Predecessor US Ecology	Form 8-K filed 11-12-2014
10.17	*Employment Agreement, effective May 23, 2017, between the Company and Andrew Marshall	Predecessor US Ecology	2 Qtr 2017 Form 10-Q filed 7-31-17
10.18	First Amendment, dated as of August 6, 2019, by and among US Ecology, Inc., certain subsidiary guarantors, each consenting lender and Wells Fargo Bank, National Association, as lender and administrative agent, to the 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	Predecessor US Ecology	Form 8-K filed 8-9-2019
10.19	Second Amendment, dated as of November 1, 2019, by and among US Ecology Holdings, Inc., certain subsidiary guarantors, each consenting lender and Wells Fargo Bank, National Association, as lender and administrative agent to the 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	US Ecology, Inc.	Form 8-K filed 11-1-2019
10.20	*US Ecology, Inc. 2019 Management Incentive Plan (Executive)	Predecessor US Ecology	1st Qtr 2019 Form 10-Q filed 5-6-2019
21	List of Subsidiaries	US Ecology, Inc.	
23.1	Consent of Deloitte and Touche LLP	US Ecology, Inc.	
31.1	Certifications of December 31, 2019 Form 10-K by Chief Executive Officer, dated March 2, 2020	US Ecology, Inc.	
31.2	Certifications of December 31, 2019 Form 10-K by Chief Financial Officer, dated March 2, 2020	US Ecology, Inc.	

Exhibit No.	Description	Company Form+	Incorporated by Reference from Registrant's
32.1	Certifications of December 31, 2019 Form 10-K by Chief Executive Officer, dated March 2, 2020	US Ecology, Inc.	
32.2	Certifications of December 31, 2019 Form 10-K by Chief Financial Officer, dated March 2, 2020	US Ecology, Inc.	
101	The following materials from the Annual Report on Form 10-K of US Ecology, Inc. for the fiscal year ended December 31, 2019 formatted in Extensible Business Reporting Language (Inline 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	US Ecology, Inc.	
104	The cover page from the Company's Annual Report on Form 10-K for the year ended December 31, 2019, formatted in Inline XBRL	US Ecology, Inc.	

+ Company Forms include filings by US Ecology, Inc. and US Ecology Holdings, Inc. (f/k/a US Ecology, Inc.) ("Predecessor US Ecology").

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

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: March 2, 2020

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 March 2, 2020.

/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)

/s/ MELANIE STEINER
Melanie Steiner
(Director)

DESCRIPTION OF THE COMPANY'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

As of December 31, 2019, US Ecology, Inc. ("we," "our," the "Company") has two classes of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act") (1) common stock of the Company and (2) warrants to acquire shares of our common stock. The following description is a general summary of the terms of the shares of our common stock and warrants. The description below does not include all of the terms of the shares of our common stock and warrants and should be read together with our Amended and Restated Certificate of Incorporation, as amended from time to time (the "Amended Charter"), and our Amended and Restated Bylaws (the "Amended Bylaws"), each of which are incorporated by reference as an exhibit to this Annual Report on Form 10-K.

Common Stock

General

Under the Amended Charter, we have the authority to issue 75,000,000 shares of common stock, par value $0.01 per share. Each share of our common stock has the same relative rights and is identical in all respects to each other share of our common stock. The rights, preferences and privileges of our holders of common stock are subject to the rights, preferences and privileges of the holders of shares of any series of preferred stock that we have issued or may issue in the future.

Voting Rights

The holders of our common stock are entitled to one vote per share on any matter to be voted upon by our stockholders; provided, however, that holders of shares of our common stock have cumulative voting in connection with the election of directors, which means that holders are entitled to as many votes as shall equal the number of votes which (except for this provision on cumulative voting) such holder is entitled to cast for the election of directors with respect to such holder's shares of stock multiplied by the number of directors to be elected by such holder, and such holder may cast all of such votes for a single director or may distribute them among the number to be voted for, or for any two or more of them as such holder may see fit.

Dividends

The holders of our common stock are entitled to receive dividends, if any, when, as and if declared by our board of directors out of funds legally available for payment.

Liquidation Rights

In the event of any liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, the holders of shares of our common stock are entitled to share ratably in all assets remaining after the payment of creditors.

Preemptive Rights

Holders of our common stock will not have preemptive, conversion, redemption or sinking fund rights.

Transfer Restrictions

Our Amended Charter contains transfer restrictions to ensure compliance with the U.S. citizen ownership requirements of the U.S. coastwise trade laws, which are principally contained in 46 U.S.C. Chapters 121, 505 and 551 and the related regulations (collectively, the "Jones Act"), as described below under the heading "Restrictions on US Ecology Stock Ownership and Purchase of Capital Stock by Non-U.S. citizens under our Amended Charter."

Nasdaq Listing

Our common stock is listed on the Nasdaq Global Select Market System ("Nasdaq") under the symbol "ECOL."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Company, LLC and its address and telephone number are 6201 15th Avenue, Brooklyn, NY 11219 and (800) 937-5449, respectively.

Delaware Law and Certain Amended Charter and Amended Bylaws Provisions

The provisions of Delaware law and of our Amended Charter and Amended Bylaws discussed below could discourage or make it more difficult to acquire control of the Company by means of a tender offer, open market purchases, a proxy contest or otherwise. Our board of directors believes that these charter provisions are appropriate to protect our interests and the interests of our stockholders. A summary of these provisions is set forth below. This summary does not purport to be complete and is qualified in its entirety by reference to the Delaware General Corporation Law (the "DGCL"), our Amended Charter and our Amended Bylaws.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the DGCL. Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to specified exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years did own, 15% or more of the corporation's voting stock.

Stockholders Rights Plan Policy

Stockholder rights plans can protect stockholders against abusive takeover tactics and ensure that each stockholder is treated fairly in an acquisition. Such plans have been effective in connection with bids for control of other companies in giving boards of directors' time to evaluate offers, investigate alternatives and take steps necessary to maximize value to stockholders. In lieu of adopting a stockholder rights plan, our board of directors has instead adopted a policy with respect to the adoption of any stockholder rights plan for us in the future. Our policy, adopted in July 2012 is that we will adopt a stockholder rights plan only if, in the exercise of their fiduciary duties, a majority of the independent directors conclude that it would be in our best interests and those of the holders of the majority of the shares of our common stock. Our board believes that this policy addresses the legitimate concerns that stockholders have with the use of stockholder rights plans while maintaining its ability to act in the stockholders' best interests and preserving our flexibility to react to unanticipated situations which may arise without notice.

Number of Directors; Removal; Filling Vacancies

Our Amended Charter and Amended Bylaws provide that our board of directors will consist of not less than five and not more than nine directors, the exact number to be fixed from time to time by resolution adopted by our directors. Further, subject to the rights of the holders of any series of our preferred stock, if any, our Amended Bylaws authorize our board of directors to elect additional directors under specified circumstances and fill any vacancies that occur in our board by reason of death, resignation, removal, or otherwise. A director so elected by our board to fill a vacancy or a newly created directorship holds office until the next election and until his successor is elected and qualified. Subject to the rights of the holders of any series of our preferred stock, if any, our Amended Bylaws also provide that directors may be removed with or without cause by the affirmative vote of holders of a majority of the combined voting power of the then outstanding stock of the Company.

Indemnification

We have included in our Amended Charter and Amended Bylaws provisions to eliminate the personal liability of our directors for monetary damages resulting from breaches of their fiduciary duty to the extent permitted by the DGCL, and to indemnify our directors and officers to the fullest extent permitted by Section 145 of the DGCL, including circumstances in which indemnification is otherwise discretionary. These provisions may have the effect of reducing the likelihood of derivative litigation against our directors and may discourage or deter stockholders or management from bringing a lawsuit against our directors for breach of their duty of care, even though such an action,

if successful, might otherwise have benefited the Company and our stockholders. We believe that these provisions are necessary to attract and retain qualified persons as directors and officers.

Restrictions on our Stock Ownership and Purchase of Capital Stock by Non-U.S. citizens under our Amended Charter

Certain of our operations are conducted in the U.S. coastwise trade and are governed by the Jones Act, which is principally contained in 46 U.S.C. Chapters 121, 505 and 551 and the related regulations. The Jones Act restricts the transportation of merchandise and passengers for hire by water or by land and water, either directly or via a foreign port between points in the United States and certain of its island territories and possessions, to U.S.-flag vessels that meet certain requirements, including that they are built in the United States, owned and controlled by U.S. citizens (within the meaning of the Jones Act), and manned by predominantly U.S. citizen crews. Should the Company fail to satisfy the requirements of the Jones Act to be a U.S. citizen, the Company would be prohibited from operating its vessels in the U.S. coastwise trade during the period of such non-compliance. In addition, the Company could be subject to substantial fines and its vessels could be subject to seizure and forfeiture for violations of the Jones Act.

The following is a summary of the restrictions (the "Maritime Restrictions") in Article Eighth of the Amended Charter. This summary is qualified in its entirety by reference to the full text of the Amended Charter.

General Restriction on Ownership of Shares by non-U.S. citizens

In order to protect the Company's eligibility as a U.S. citizen, the Amended Charter restricts the record or beneficial ownership or control of shares of each class or series of our capital stock, which includes common stock, by non-U.S. citizens to no more than 24% in the aggregate of the total issued and outstanding shares of such class or series. The Company refers to such percentage restriction on ownership by non-U.S. citizens of any class or series of shares of the Company's capital stock as the "Permitted Percentage" and any such shares owned by non-U.S. citizens in excess of the Permitted Percentage as "Excess Shares." The Amended Charter provides that a person will not be deemed to be the beneficial owner of shares of our capital stock, if our board of directors determines that such person is not the beneficial owner of such shares for the purposes of the Jones Act. All references to beneficial ownership of shares and the derivative phrases thereof in this summary of the Maritime Restrictions include record ownership of shares and the ability to control shares.

Restriction on Transfers of Excess Shares

The Maritime Restrictions provide that no shares of any class or series of the capital stock of the Company may be transferred to a non-U.S. citizen or a holder of record that will hold such shares for or on behalf of a non-U.S. citizen if, upon completion of such transfer, the number of shares of such class or series beneficially owned by all non-U.S. citizens in the aggregate would exceed the Permitted Percentage for such class or series. Any transfer or purported transfer of beneficial ownership of any shares of any class or series of capital stock of the Company, the effect of which would be to cause one or more non-U.S. citizens in the aggregate to beneficially own shares of any class or series of capital stock of the Company in excess of the Permitted Percentage for such class or series, shall, to the fullest extent permitted by law, be void ab initio and ineffective, and, to the extent that the Company or its transfer agent (if any) knows that such transfer or purported transfer would, if completed, be in violation of the restrictions on transfers to non-U.S. citizens set forth in the Maritime Restrictions, neither the Company nor its transfer agent (if any) shall register such transfer or purported transfer on the stock transfer records of the Company and neither the Company nor its transfer agent (if any) shall recognize the transferee or purported transferee thereof as a stockholder of the Company for any purpose whatsoever (including for purposes of voting, dividends and other distributions) except to the extent necessary to effect any remedy available to the Company under the Maritime Restrictions. In no event shall any such registration or recognition make such transfer or purported transfer effective unless our board of directors (or any duly authorized committee thereof, or any officer of the Company who shall have been duly authorized by our board of directors or any such committee thereof) shall have expressly and specifically authorized the same.

In connection with any purported transfer of shares of any class or series of the capital stock of the Company, any transferee or proposed transferee of shares and, if such transferee or proposed transferee is acting as a fiduciary or nominee for a beneficial owner, such beneficial owner, may be required by the Company or its transfer agent to deliver (1) certification (which may include as part thereof a form of affidavit) upon which the Company and its transfer agent shall be entitled to rely conclusively stating whether such transferee or proposed or purported transferee

or, if such transferee or proposed transferee is acting as custodian, nominee, purchaser representative or in any other capacity for a beneficial owner, whether such beneficial owner, is a U.S. citizen, and (2) such other documentation and information concerning its citizenship under the Maritime Restrictions as the Company may request in its sole discretion. Registration and recognition of any transfer of shares may be denied by the Company upon refusal to furnish any of the foregoing citizenship certifications, documentation or information requested by the Company. Each proposed transferor of such shares shall reasonably cooperate with any requests from the Company to facilitate the transmission of requests for such citizenship certifications and such other documentation and information to the proposed transferee and such proposed transferee's responses thereto.

Notwithstanding any of the Maritime Restrictions, the Company shall be entitled to rely, without limitation, on the stock transfer and other stockholder records of the Company (and its transfer agent) for the purposes of preparing lists of stockholders entitled to vote at meetings, determining the validity and authority of proxies, and otherwise conducting votes of stockholders.

Excess Shares

If on any date, including, without limitation, any record date (each, an "Excess Share Date"), the number of shares of any class or series of capital stock of the Company beneficially owned by all non-U.S. citizens in the aggregate should exceed the Permitted Percentage with respect to such class or series of capital stock, irrespective of the date on which such event becomes known to the Company (such shares in excess of the Permitted Percentage, the "Excess Shares"), then the shares of such class or series of capital stock of the Company that constitute Excess Shares for purposes of the Maritime Restrictions shall be (1) those shares that have been acquired by or become beneficially owned by non-U.S. citizens, starting with the most recent acquisition of beneficial ownership of such shares by a non-U.S. citizen and including, in reverse chronological order of acquisition, all other acquisitions of beneficial ownership of such shares by non-U.S. citizens from and after the acquisition of beneficial ownership of such shares by a non-U.S. citizen that first caused such Permitted Percentage to be exceeded, or (2) those shares beneficially owned by non-U.S. citizens that exceed the Permitted Percentage as the result of any repurchase or redemption by the Company of shares of its capital stock, starting with the most recent acquisition of beneficial ownership of such shares by a non-U.S. citizen and going in reverse chronological order of acquisition; provided, however, that: (a) the Company shall have the power to determine, in its sole discretion, those shares of such class or series that constitute Excess Shares in accordance with the provisions of the Maritime Restrictions; (b) the Company may, in its sole discretion, rely on any documentation provided by non-U.S. citizens with respect to the date and time of their acquisition of beneficial ownership of Excess Shares; (c) if the acquisition of beneficial ownership of more than one Excess Share occurs on the same date and the time of acquisition is not definitively established, then the order in which such acquisitions shall be deemed to have occurred on such date shall be determined by lot or by such other method as the Company may, in its sole discretion, deem appropriate; (d) Excess Shares that result from a determination that a beneficial owner has ceased to be a U.S. citizen shall be deemed to have been acquired, for purposes of the Maritime Restrictions, as of the date that such beneficial owner ceased to be a U.S. citizen; and (e) the Company may adjust upward to the nearest whole share the number of shares of such class or series deemed to be Excess Shares. Any determination made by the Company pursuant to the Maritime Restrictions as to which shares of any class or series of the Company's capital stock constitute Excess Shares of such class or series shall be conclusive and shall be deemed effective as of the applicable Excess Share Date for such class or series.

Redemption of Excess Shares

To the extent that the above ownership and transfer restrictions would be ineffective for any reason, the Maritime Restrictions provide that, to prevent the percentage of aggregate shares of any class or series of the Company's capital stock owned by non-U.S. citizens from exceeding the Permitted Percentage, the Company, by action of our board of directors (or any duly authorized committee thereof), in its sole discretion, will have the power (but not the obligation) to redeem all or any number of such Excess Shares, unless such redemption is not permitted under applicable law.

Until such Excess Shares are redeemed or they are no longer Excess Shares, the holders of such shares will not be entitled to any voting rights with respect to such shares and the Company will pay any dividends or distributions with respect to such shares into a segregated account. Full voting, distribution and dividend rights will be restored to

such Excess Shares (and any dividends or distributions paid into a segregated account will be paid to holders of record of such shares), promptly after the time and to the extent that such shares have ceased to be Excess Shares, unless such shares have already been redeemed by the Company.

If our board of directors (or any duly authorized committee thereof) determines to redeem Excess Shares, the per share redemption price (the "Redemption Price") for each Excess Share shall be paid by the issuance of one Redemption Warrant (as defined below) for each Excess Share; provided, however, that if (1) the Company determines that a Redemption Warrant would be treated as capital stock under the Jones Act or (2) the Company is prevented from legally issuing Redemption Warrants under applicable law, then the Redemption Price shall be paid, as determined by our board of directors (or any duly authorized committee thereof) in its sole discretion, (a) in cash (by wire transfer or bank or cashier's check), (b) by the issuance of Redemption Notes (as defined below), (c) by any combination of cash and Redemption Notes, or (d) by any other means authorized or permitted under the DGCL.

- "Redemption Warrants" means the warrants issued pursuant to that certain Assignment, Assumption and Amendment to the Warrant Agreement, dated November 1, 2019, among the Company, American Stock Transfer & Trust Company, LLC, NRC Group Holdings Corp. and Continental Stock Transfer and Trust Company (the "Warrant Agreement"), with respect to the warrants entitling the holders thereof to purchase shares of our common stock with an exercise price per warrant equal to $0.01 per share of our common stock. A holder of Redemption Warrants (or its proposed or purported transferee) who cannot establish to the satisfaction of the Company that it is a U.S. citizen shall not be permitted to exercise its Redemption Warrants if the shares issuable upon exercise would constitute Excess Shares if they were issued. Redemption Warrants shall not entitle the holder to have any rights or privileges of stockholders of the Company solely by virtue of such Redemption Warrants, including, without limitation, any rights to vote, to receive dividends or distributions, to exercise any preemptive rights, or to receive notices, in each case, as stockholders of the Company, until they exercise their Redemption Warrants and receive shares of our common stock.

- "Redemption Notes" means interest-bearing promissory notes of the Company with a maturity of not more than ten years from the date of issue and bearing interest at a fixed rate equal to the yield on the U.S. Treasury Note having a maturity comparable to the term of such Redemption Notes as published in The Wall Street Journal or comparable publication at the time of the issuance of the Redemption Notes. Such notes shall be governed by the terms of an indenture to be entered into by and between the Company and a trustee, as may be amended from time to time. Redemption Notes shall be redeemable at par plus accrued but unpaid interest.

With respect to the portion of the Redemption Price being paid in whole or in part by cash and/or by the issuance of Redemption Notes, such portion of the Redemption Price shall be an amount equal to, in the case of cash, or a principal amount equal to, in the case of Redemption Notes, the sum of (1) the fair market value of such Excess Share as of the date of redemption of such Excess Share plus (2) an amount equal to the amount of any dividend or any other distribution (upon liquidation or otherwise) declared in respect of such Excess Share prior to the date on which such Excess Share is called for redemption and which amount has been paid into a segregated account by the Company.

Written notice of the redemption of the Excess Shares containing the information set forth in the Maritime Restrictions, together with a letter of transmittal to accompany certificates, if any, representing the Excess Shares that have been called for redemption, shall be given either by hand delivery or by overnight courier service or by first-class mail, postage prepaid, to each holder of record of the Excess Shares to be redeemed, at such holder's last known address as the same appears on the stock register of the Company (the "Redemption Notice"), unless such notice is waived in writing by any such holders.

The date on which the Excess Shares shall be redeemed (the "Redemption Date") shall be the later of (1) the date specified in the Redemption Notice sent to the record holder of the Excess Shares (which shall not be earlier than the date of such notice), and (2) the date on which the Company has irrevocably deposited in trust with a paying agent

or set aside for the benefit of such record holder consideration sufficient to pay the Redemption Price to such record holders of such Excess Shares in Redemption Warrants, cash and/or Redemption Notes.

Each Redemption Notice to each holder of record of the Excess Shares to be redeemed shall specify (1) the Redemption Date (as determined pursuant to the Maritime Restrictions), (2) the number and the class or series of shares of capital stock to be redeemed from such holder as Excess Shares (and, to the extent such Excess Shares are certificated, the certificate number(s) representing such Excess Shares), (3) the Redemption Price and the manner of payment thereof, (4) the place where certificates for such Excess Shares (if such Excess Shares are certificated) are to be surrendered for cancellation, (5) any instructions as to the endorsement or assignment for transfer of such certificates (if any) and the completion of the accompanying letter of transmittal, and (6) the fact that all right, title and interest in respect of the Excess Shares to be redeemed (including, without limitation, voting, dividend and distribution rights) shall cease and terminate on the Redemption Date, except for the right to receive the Redemption Price, without interest.

On and after the Redemption Date, all right, title and interest in respect of the Excess Shares selected for redemption (including, without limitation, voting and dividend and distribution rights) shall forthwith cease and terminate, such Excess Shares shall no longer be deemed to be outstanding shares for any purpose, including, without limitation, for purposes of voting or determining the total number of shares entitled to vote on any matter properly brought before the stockholders for a vote thereon or receiving any dividends or distributions (and may be either cancelled or held by the Company as treasury stock), and the holders of record of such Excess Shares shall thereafter be entitled only to receive the Redemption Price, without interest.

Upon surrender of the certificates (if any) for any Excess Shares so redeemed in accordance with the requirements of the Redemption Notice and the accompanying letter of transmittal (and otherwise in proper form for transfer as specified in the Redemption Notice), the holder of record of such Excess Shares shall be entitled to payment of the Redemption Price. In case fewer than all the shares represented by any such certificate are redeemed, a new certificate (or certificates), to the extent such shares were certificated, shall be issued representing the shares not redeemed, without cost to the holder of record. On the Redemption Date, to the extent that dividends or other distributions (upon liquidation or otherwise) with respect to the Excess Shares selected for redemption were paid into a segregated account, then, to the fullest extent permitted by applicable law, such amounts shall be released to the Company upon the completion of such redemption.

Nothing in the Maritime Restrictions will prevent the recipient of a Redemption Notice from transferring its shares before the Redemption Date if such transfer is otherwise permitted under the Maritime Restrictions and applicable law and the recipient provides notice of such proposed transfer to the Company along with the documentation and information required under the Maritime Restrictions establishing that such proposed transferee is a U.S. citizen to the satisfaction of the Company in its sole discretion before the Redemption Date. If such conditions are met, our board of directors (or any duly authorized committee thereof) will withdraw the Redemption Notice related to such shares, but otherwise the redemption thereof will proceed on the Redemption Date in accordance with the Maritime Restrictions and the Redemption Notice.

Permitted Actions by the Company to Enforce the Maritime Restrictions

The Company has the power to determine the citizenship of the beneficial owners and the transferees or proposed transferees (and, if such transferees or proposed transferees are acting as fiduciaries or nominees for any beneficial owners, the citizenship of such beneficial owners) of any class or series of the Company's capital stock and to require confirmation from time to time of the citizenship of the beneficial owners of any shares of its capital stock. As a condition to acquiring and having beneficial ownership of any shares of its capital stock, every beneficial owner of the Company's shares must comply with certain provisions in the Maritime Restrictions concerning citizenship, which are summarized below. The Company has the right under the Maritime Restrictions to require additional reasonable proof of the citizenship of beneficial owners, transferees or proposed transferees (and any beneficial owners for whom such transferees or proposed transferees are acting as fiduciaries or nominees) of any shares of its capital stock, and the determination of the Company at any time as to the citizenship of such persons is conclusive.

The Maritime Restrictions require that promptly upon a beneficial owner's acquisition of beneficial ownership of 5% or more of the outstanding shares of any class or series of capital stock of the Company, and at such other times as the Company may determine by written notice to such beneficial owner, such beneficial owner must provide to the Company a written statement or an affidavit, as specified by the Company, stating the name and address of such beneficial owner, the number of shares of each class or series of capital stock of the Company beneficially owned by such beneficial owner as of a recent date, the legal structure of such beneficial owner, a statement as to whether such beneficial owner is a U.S. citizen, and such other information and documents required by the U.S. Coast Guard or the U.S. Maritime Administration under the Jones Act, including 46 C.F.R. part 355. In addition, under the Maritime Restrictions, a beneficial owner is required to provide such a written statement or affidavit when the Company determines, in its sole discretion, that the citizenship status of such beneficial owner may have changed or that it is necessary under the Jones Act for the Company to confirm the Company's citizenship status.

Under the Maritime Restrictions, when a beneficial owner of any shares of the Company's capital stock ceases to be a U.S. citizen, such beneficial owner is required to provide to the Company, as promptly as practicable but in no event less than five business days after the date such beneficial owner becomes aware that it is no longer a U.S. citizen, a written statement, stating the name and address of such beneficial owner, the number of shares of each class or series of its capital stock beneficially owned by such beneficial owner as of a recent date, the legal structure of such beneficial owner, and a statement as to such change in status of such beneficial owner to a non-U.S. citizen.

The Maritime Restrictions require that, promptly after becoming a beneficial owner, every beneficial owner must provide, or authorize such beneficial owner's broker, dealer, custodian, depositary, nominee or similar agent with respect to the shares of each class or series of the Company's capital stock beneficially owned by such beneficial owner to provide, to the Company such beneficial owner's address. A beneficial owner of the Company's capital stock is also required by the Maritime Restrictions to provide promptly upon request the Company with a written statement or an affidavit, as specified by the Company, stating the name and address of such beneficial owner, together with reasonable documentation of the date and time of such beneficial owner's acquisition of beneficial ownership of the shares of any class or series of capital stock of the Company specified by the Company in its request.

In the event that the Company requests the documentation described above and a beneficial owner fails to provide it by the specified date, the Maritime Restrictions provide for the suspension of the voting rights of such beneficial owner's shares of the Company's capital stock and for the payment of dividends and distributions (upon liquidation or otherwise) with respect to those shares into a segregated account until the requested documentation is submitted in form and substance reasonably satisfactory to the Company (subject to the other Maritime Restrictions). In addition, the Company, upon approval by our board of directors (or any duly authorized committee thereof) in its sole discretion, has the power to treat such beneficial owner as a non-U.S. citizen unless and until the Company receives the requested documentation confirming that such beneficial owner is a U.S. citizen.

In the event that the Company requests a transferee or proposed transferee (and, if such transferee or proposed transferee is acting as a fiduciary or nominee for a beneficial owner, such beneficial owner) of, shares of any class or series of the Company's capital stock to provide the documentation described above, and such person fails to submit it in form and substance reasonably satisfactory to the Company by the specified date, the Company, acting through our board of directors (or any duly authorized committee thereof, or any officer of the Company who shall have been duly authorized by our board of directors or any such committee thereof), will have the power, in its sole discretion, to refuse to accept any application to transfer ownership of such shares (if any) or to register such shares on the stock transfer records of the Company and may prohibit and/or void such transfer, including by placing a stop order with the Company's transfer agent, until such requested documentation is submitted and the Company is satisfied that the proposed transfer of shares will not result in Excess Shares.

Certificates representing shares of any class or series of the Company's capital stock will bear legends concerning the Maritime Restrictions. Within a reasonable time after the issuance or transfer of uncertificated shares of the Company's capital stock, the Company will give notice, in writing or by electronic transmission, of the Maritime Restrictions.

Maritime Restrictions Severable

The Maritime Restrictions are intended to be severable. If any one or more of the Maritime Restrictions is held to be invalid, illegal or unenforceable, the Amended Charter provides that the validity, legality or enforceability of any other provision will not be affected.

Summary of Requirements to be a U.S. citizen

The following is a summary of the requirements to be a U.S. citizen within the meaning of the Jones Act. Each holder and potential purchaser of our stock should consult its own counsel as to whether it is a U.S. citizen or a non-U.S. citizen before purchasing our stock. The Jones Act specifies that ownership of at least 75% of the equity interest by U.S. citizens means ownership free from any trust or fiduciary obligations in favor of, or any agreement, arrangement or understanding or other means by which more than 25% of the voting power or control of the corporation may be exercised directly or indirectly by or on behalf of, non-U.S. citizens. In addition, these citizenship requirements apply at each tier in the Company's ownership chain, which means that they must be satisfied by each person that contributes to the Company's eligibility as a U.S. citizen, and each person that contributes to the eligibility of such other person as a U.S. citizen at each tier of ownership. For entities of a kind not described below, citizenship requirements may vary.

- A natural person is a U.S. citizen if he or she was born in the United States, born abroad to U.S. citizen parents, naturalized, naturalized during minority through the naturalization of a parent, or as otherwise authorized by law.

- A partnership is deemed a U.S. citizen if such holder is (1) organized under the laws of the United States or a state, (2) each general partner is a U.S. citizen, and (3) at least 75% of the ownership and voting power of each class or series of the partnership interests is owned and controlled by U.S. citizens.

- A member-managed limited liability company is deemed a U.S. citizen if such holder is (1) organized under the laws of the United States or a state, (2) each member of the limited liability company is a U.S. citizen, and (3) at least 75% of the ownership and voting power of each class or series of the limited liability company interests is owned and controlled by U.S. citizens.

- A manager-managed limited liability company is deemed a U.S. citizen if such holder is (1) organized under the laws of the United States or a state, (2) each manager is a U.S. citizen within the meaning of the Jones Act, (3) the chief executive officer, by whatever title, and the chairman of the board of directors (or equivalent body) of the limited liability company are U.S. citizens, (4) not more than a minority of the number of the directors (or equivalent office) necessary to constitute a quorum of the board of directors (or equivalent body) of the limited liability company are non-U.S. citizens, and (5) at least 75% of the ownership and voting power of each class or series of the limited liability company interests is owned and controlled by U.S. citizens.

- A corporation is deemed a U.S. citizen if such holder is (1) organized under the laws of the United States or a state, (2) the chief executive officer, by whatever title, and the chairman of the board of directors of the corporation are U.S. citizens, (3) not more than a minority of the number of the directors necessary to constitute a quorum of the board of directors of the corporation are non-U.S. citizens, and (4) at least 75% of the ownership and voting power of each class or series of the corporation's stock is owned and controlled by U.S. citizens.

- A trust is deemed to be a U.S. citizen if it (1) is organized under the laws of the United States or a state, (2) each trustee is a U.S. citizen, (3) each beneficiary with an enforceable interest in the trust is a U.S. citizen, and (4) at least 75% of the equity interest in the trust is owned and controlled by U.S. citizens.

If the Company should fail to comply with the above described ownership requirements, the Company's vessels could lose their ability to engage in U.S. coastwise trade. To assist the Company with compliance with these requirements, the Amended Charter:

- limits ownership by non-U.S. citizens of any class or series of our capital stock (including our common stock) to 24%;
- permits the Company to withhold dividends and suspend voting rights with respect to any shares held by non-U.S. citizens above 24%;
- permits the Company to establish and maintain a dual share system under which different forms of certificates (in the case of certificated shares) and different book entries (in the case of uncertificated shares) are used to reflect whether the owner is or is not a U.S. citizen;
- permits the Company to redeem any shares held by non-U.S. citizens so that the Company's non-U.S. citizen ownership is no greater than 24%; and
- permits the Company to take measures to ascertain ownership of our stock.

All potential investors will be required to certify to the Company if it is a U.S. citizen before investing in our common stock. If you or a proposed transferee cannot or do not make such certification, or a sale of stock to you or a transfer of your stock would result in the ownership by non-U.S. citizens of 24% or more of our common stock, such person may not be allowed to purchase or transfer our common stock, or such purchase or transfer may be reversed or the shares so purchased or transferred may be redeemed under the Amended Charter. All certificates representing the shares of our common stock will bear legends referring to the foregoing restrictions. Within a reasonable time after the issuance or transfer of uncertificated shares of our capital stock, the Company will give notice, in writing or by electronic transmission, of the Maritime Restrictions.

Warrants to Purchase Common Stock

Each warrant entitles the registered holder thereof to purchase our common stock for $58.67 per share, subject to adjustment as discussed below, at any time. Warrants are exercisable only for a whole number of shares of our common stock. No fractional shares will be issued upon exercise of the warrants. The warrants expire upon October 17, 2023, or earlier upon redemption or liquidation. The warrants are listed on Nasdaq Capital Market under the symbol "ECOLW."

The Company is not obligated to deliver any shares of common stock pursuant to the exercise of a warrant and has no obligation to settle a warrant exercise unless a registration statement under the Securities Act of 1933 (the "Securities Act") with respect to the common stock underlying the warrants is then effective and a prospectus relating thereto is current, subject to the Company satisfying its obligations described below with respect to registration. No warrants is exercisable for cash or on a cashless basis, and the Company is not obligated to issue any common stock to holders seeking to exercise their warrants, unless the issuance of the common stock upon such exercise is registered or qualified under the securities laws of the state of the exercising holder, unless an exemption is available. In the event that the conditions in the two immediately preceding sentences are not satisfied with respect to a warrant, the holder of such warrant will not be entitled to exercise such warrant and such warrant may have no value and expire worthless.

In no event is the Company required to issue cash, securities or other compensation in exchange for the warrant in the event that the Company is unable to register or qualify the shares underlying the warrant under the Securities Act or applicable state securities laws. If the issuance of the shares upon exercise of the warrant is not so registered or qualified, the holder of such warrant shall not be entitled to exercise such warrant and such warrant may have no value and expire worthless. In such event, holders who acquired their warrants as part of a purchase of units will have paid the full unit purchase price solely for the shares of common stock included in the units.

Notwithstanding the above, if common stock is at the time of any exercise of a warrant not listed on a national securities exchange such that it satisfies the definition of a "covered security" under Section 18(b)(1) of the Securities Act, the Company may, at its option, require holders of warrants who exercise their warrants to do so on a "cashless basis" in accordance with Section 3(a)(9) of the Securities Act and, in the event the Company so elects, the Company will not be required to file or maintain in effect a registration statement or register or qualify the shares under blue sky laws.

Once the warrants become exercisable, the Company may call the warrants for redemption:

- in whole and not in part;
- at a price of $0.01 per warrant, provided that the last sales price of common stock reported has been at least $91.84 per share on each of 20 days within the 30 trading-day period ending on the business day prior to the date on which notice of the redemption is given (the "Redemption Trigger Price") and provided that there is an effective registration statement covering the shares of common stock issuable on exercise of the warrants and subject to the satisfaction of certain other requirements; and
- upon not less than 30 days' prior written notice of redemption to each warrant holder.

If and when the warrants become redeemable by the Company, the Company may not exercise its redemption right if the issuance of shares of common stock upon exercise of the warrants is not exempt from registration or qualification under applicable state blue sky laws or the Company is unable to effect such registration or qualification. The Company will use its best efforts to register or qualify such shares of common stock under the blue sky laws of the state of residence in those states in which the warrants were offered by the Company.

The last of the redemption criteria discussed above was established to prevent a redemption call unless there is at the time of the call a significant premium to the warrant exercise price. If the foregoing conditions are satisfied and the Company issues a notice of redemption of the warrants, each warrant holder will be entitled to exercise his, her or its warrant prior to the scheduled redemption date. However, the price of the common stock may fall below the Redemption Trigger Price as well as the warrant exercise price.

If the Company calls the warrants for redemption as described above, the Company's management will have the option to require any holder that wishes to exercise his, her or its warrants to do so on a "cashless basis." In determining whether to require all holders to exercise their warrants on a "cashless basis," the Company's management will consider, among other factors, the Company's cash position, the number of warrants that are outstanding and the dilutive effect on the Company's stockholders of issuing the maximum number of shares of common stock issuable upon the exercise of the warrants. If the Company's management takes advantage of this option, all holders of warrants would pay the exercise price by surrendering their warrants for that number of shares of common stock equal to the quotient obtained by dividing (1) the product of the number of shares of common stock underlying the warrants, multiplied by the difference between the exercise price of the warrants and the "fair market value" (defined below) by (2) the fair market value. The "fair market value" shall mean the average reported last sale price of the common stock for the ten trading days ending on the third trading day prior to the date on which the notice of redemption is sent to the holders of warrants. If the Company's management takes advantage of this option, the notice of redemption will contain the information necessary to calculate the number of shares of common stock to be received upon exercise of the warrants, including the fair market value in such case. Requiring a cashless exercise in this manner will reduce the number of shares to be issued and thereby lessen the dilutive effect of a warrant redemption. The Company believes this feature is an attractive option to the Company if the Company does not need the cash from the exercise of the warrants.

A holder of a warrant may notify the Company in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such warrant, to the extent that after giving effect to such exercise, such person (together with such person's affiliates), to the warrant agent's actual knowledge, would beneficially own in excess of 4.9% or 9.8% (or such other amount as a holder may specify) of the shares of common stock outstanding immediately after giving effect to such exercise.

If the number of outstanding shares of common stock is increased by a stock dividend payable in shares of common stock, or by a split-up of shares of common stock or other similar event, then, on the effective date of such stock dividend, split-up or similar event, the number of shares of common stock issuable on exercise of each warrant will be increased in proportion to such increase in the outstanding shares of common stock. A rights offering to holders of common stock entitling holders to purchase shares of common stock at a price less than the fair market value will be deemed a stock dividend of a number of shares of common stock equal to the product of (1) the number of shares of common stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for common stock) multiplied by (2) one minus the quotient of (i) the price per share of common stock paid in such rights offering divided by (ii) the fair market value. For these purposes (1) if the rights offering is for securities convertible into or exercisable for common stock, in determining the price payable for common stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion and (2) fair market value means the volume weighted average price of common stock as reported during the ten trading day period ending on the trading day prior to the first date on which the shares of common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if the Company, at any time while the warrants are outstanding and unexpired, pays a dividend or makes a distribution in cash, securities or other assets to the holders of common stock on account of such shares of common stock (or other shares of the Company's capital stock into which the warrants are convertible), other than (1) as described above or (2) certain ordinary cash dividends then the warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of common stock in respect of such event.

If the number of outstanding shares of common stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of common stock or other similar event, then, on the effective date of such consolidation, combination, reverse stock split, reclassification or similar event, the number of shares of common stock issuable on exercise of each warrant will be decreased in proportion to such decrease in outstanding shares of common stock.

Whenever the number of shares of common stock purchasable upon the exercise of the warrants is adjusted, as described above, the warrant exercise price will be adjusted by multiplying the warrant exercise price immediately prior to such adjustment by a fraction (1) the numerator of which will be the number of shares of common stock purchasable upon the exercise of the warrants immediately prior to such adjustment, and (2) the denominator of which will be the number of shares of common stock so purchasable immediately thereafter.

In case of any reclassification or reorganization of the outstanding shares of common stock (other than those described above or that solely affects the par value of such shares of common stock), or in the case of any merger or consolidation of the Company with or into another corporation (other than a consolidation or merger in which the Company is the continuing corporation and that does not result in any reclassification or reorganization of the Company's outstanding shares of common stock), or in the case of any sale or conveyance to another corporation or entity of the assets or other property of the Company as an entirety or substantially as an entirety in connection with which the Company is dissolved, the holders of the warrants will thereafter have the right to purchase and receive, upon the basis and upon the terms and conditions specified in the warrants and in lieu of the shares of common stock immediately theretofore purchasable and receivable upon the exercise of the rights represented thereby, the kind and amount of shares of stock or other securities or property (including cash) receivable upon such reclassification, reorganization, merger or consolidation, or upon a dissolution following any such sale or transfer, that the holder of the warrants would have received if such holder had exercised their warrants immediately prior to such event. However, if such holders were entitled to exercise a right of election as to the kind or amount of securities, cash or other assets receivable upon such consolidation or merger, then the kind and amount of securities, cash or other assets for which each warrant will become exercisable will be deemed to be the weighted average of the kind and amount received per share by such holders in such consolidation or merger that affirmatively make such election, and if a tender, exchange or redemption offer has been made to and accepted by such holders (other than a tender, exchange or redemption offer made by the Company in connection with redemption rights held by stockholders as provided for in the charter) under circumstances in which, upon completion of such tender or exchange offer, the maker thereof, together with members of any group (within the meaning of Rule 13d-5(b)(1) under the Exchange Act) of which such

maker is a part, and together with any affiliate or associate of such maker (within the meaning of Rule 12b-2 under the Exchange Act) and any members of any such group of which any such affiliate or associate is a part, own beneficially (within the meaning of Rule 13d-3 under the Exchange Act) more than 50% of the outstanding shares of common stock, the holder of a warrant will be entitled to receive the highest amount of cash, securities or other property to which such holder would actually have been entitled as a stockholder if such warrant holder had exercised the warrant prior to the expiration of such tender or exchange offer, accepted such offer and all of the common stock held by such holder had been purchased pursuant to such tender or exchange offer, subject to adjustments (from and after the consummation of such tender or exchange offer) as nearly equivalent as possible to the adjustments provided for in the Warrant Agreement. Additionally, if less than 70% of the consideration receivable by the holders of common stock in such a transaction is payable in the form of common stock in the successor entity that is listed for trading on a national securities exchange or is quoted in an established over-the-counter market, or is to be so listed for trading or quoted immediately following such event, and if the registered holder of the warrant properly exercises the warrant within 30 days following public disclosure of such transaction, the warrant exercise price will be reduced based on the per share consideration minus the Black-Scholes warrant value of the warrant in order to determine and realize the option value component of the warrant. This formula is to compensate the warrant holder for the loss of the option value portion of the warrant due to the requirement that the warrant holder exercise the warrant within 30 days of the event. The Black-Scholes model is an accepted pricing model for estimating fair market value where no quoted market price for an instrument is available.

The warrants are issued in registered form under the Warrant Agreement. The Warrant Agreement provides that the terms of the warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but will require the approval by the holders of at least 65% of the then outstanding warrants to make any change that adversely affects the interests of the registered holders of warrants.

The warrants are exercisable upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price (or on a cashless basis, if applicable), by certified or official bank check payable to the Company, for the number of warrants being exercised. The warrant holders do not have the rights or privileges of holders of common stock and any voting rights until they exercise their warrants and receive shares of common stock. After the issuance of shares of common stock upon exercise of the warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

No fractional shares will be issued upon exercise of the warrants. If, upon exercise of the warrants, a holder would be entitled to receive a fractional interest in a share, the Company will, upon exercise, round down to the nearest whole number of shares of common stock to be issued to the warrant holder.

As discussed above, in order to protect the Company's eligibility as a U.S. citizen in case that ownership of common stock by non-U.S. citizens exceeds the maximum percentage permitted by the Jones Act (presently 25%), the Amended Charter and the Amended Bylaws contain provisions that limit the maximum aggregate percentage of ownership by non-U.S. citizens of the common stock to 24% of the outstanding shares of common stock. At and during such time that the 24% maximum permitted percentage of ownership by non-U.S. citizens is reached with respect to shares of common stock, the Company will be unable to permit the exercise of any warrants by non-U.S. citizens. If a holder of the warrants that is a non-U.S. citizen is unable to exercise such warrants, it may have to wait to exercise such warrants until such time that the 24% maximum permitted percentage of ownership by non-U.S. citizens is not reached with respect to shares of common stock or may have to sell such warrants to a U.S. citizen who is able to exercise the warrants.

Exhibit 21

List of Subsidiaries

Subsidiary Name	State of Formation
American Ecology Environmental Services Corp.	Texas
CRN Denizcliik Anonim Sirketi /aka/ CRN Martime S.A.	Turkey
Eagle Construction and Environmental Services, LLC	Delaware
ENPRO Holdings Group, Inc.	Massachusetts
ENPRO Services of Vermont, Inc.	Maine
Envirite of Illinois, Inc.	Delaware
Envirite of Ohio, Inc.	Delaware
Envirite of Pennsylvania, Inc.	Delaware
Envirite Transportation, LLC	Ohio
Environmental Services Inc.	Ontario
EQ Augusta, Inc.	Michigan
EQ de Mexico, Inc.	Mexico
EQ Detroit, Inc.	Michigan
EQ Holdings, Inc.	Delaware
EQ Industrial Services, Inc.	Michigan
EQ Metals Recovery, LLC	Ohio
EQ Northeast, Inc.	Massachusetts
EQ Parent Company, Inc.	Delaware
JFL-NRC Holdings, LLC	Delaware
Michigan Disposal, Inc.	Michigan
National Response Corporation	Delaware
National Response Corporation (Angola) LDA	Angola
National Response Corporation (NRC) Environmental Services UAE L LC	United Arab Emirates
National Response Corporation Aruba	Aruba
National Response Corporation Mexico NRC	Mexico
National Response Corporation of Puerto Rico	Delaware
NRC (Asia Pacific) LTD.	Thailand
NRC (B.V.I.) Ltd.	British Virgin Islands
NRC (East Africa) Limited	Uganda
NRC (Egypt) LLC	Egypt
NRC (Malta) Limited	Marshall Islands
NRC (West Africa) LLC	Marshall Islands
NRC Alaska, LLC	Delaware
NRC East Environmental Services, Inc.	Massachusetts
NRC Eastern Mediterranean Ltd.	Israel
NRC Environmental of Maine, Inc.	Maine
NRC Environmental Protection Waste Management & Remediation Services AS	Turkey
NRC Environmental Services (UK) Limited	Scotland
NRC Environmental Services, Inc.	Washington
NRC Group Holdings Corp.	Delaware
NRC Group Holdings, LLC	Delaware
NRC Gulf Environmental Services, Inc.	Delaware
NRC Intermediate Int. Holding Company, LLC	Delaware
NRC International Holding Company, LLC	Marshall Islands
NRC International Services, Ltd.	Marshall Islands
NRC Kazakhstan LLP	Kazakhstan
NRC NY Environmental Services, Inc.	Delaware
NRC Payroll Management LLC	Delaware
NRC Servicing Limited	United Kingdom
NRC Trinidad & Tobago Ltd.	Trinidad

NRC US Holding Company, LLC	Delaware
NRC WWS LTD	United Kingdom
OP-TECH Avix, Inc.	New York
OSRV Holdings, Inc.	Delaware
Quail Run Services, LLC	Texas
RTF Romulus, LLC	Michigan
SES-Haztec Services De Reposta A Emrgencias S.A.	Brazil
South Atlantic Response S.A.	Argentina
Southern Waste Services, Inc.	Florida
Specialized Response Solutions (Canada) Inc.	Alberta
Specialized Response Solutions, L.P.	Texas
Stablex Canada Inc.	Canada
Sureclean A.S.	Norway
Sureclean Holdco Limited	United Kingdom
TMC Services, Inc.	Massachusetts
US Ecology Energy Waste Disposal Services, LLC	Delaware
US Ecology Holdings, Inc.	Delaware
US Ecology Houston, Inc.	Delaware
US Ecology Idaho, Inc.	Delaware
US Ecology Illinois, Inc.	California
US Ecology Karnes County Disposal, LLC	Texas
US Ecology Livonia, Inc.	Michigan
US Ecology Michigan, Inc.	Michigan
US Ecology Mobile Recycling, Inc.	Michigan
US Ecology Nevada, Inc.	Delaware
US Ecology Romulus, Inc.	Michigan
US Ecology Stablex Holdings, Inc.	Delaware
US Ecology Sulligent, Inc.	Michigan
US Ecology Tampa, Inc.	Michigan
US Ecology Taylor, Inc.	Michigan
US Ecology Texas, Inc.	Delaware
US Ecology Thermal Services, Inc.	Delaware
US Ecology Transportation Solutions, Inc.	Delaware
US Ecology Tulsa, Inc.	Michigan
US Ecology Vernon, Inc.	Delaware
US Ecology Washington, Inc.	Delaware
US Ecology Winnie, LLC	Delaware
USE Canada Holdings Inc.	Canada
USE EWD Holdco, LLC	Delaware
Venezuelan Response Corporation	Venezuela
W.I.S.E. Environmental Solutions Inc.	Ontario
Waste Repurposing International, Inc.	Delaware
Wayne Disposal, Inc.	Michigan

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-235835 and 333-234424 on Form S-8, Registration Statement No. 333-235824 on Form S-3, and Registration Statement No. 333-232930 on Form S-4, of our report dated March 2, 2020, relating to the consolidated financial statements of US Ecology Inc. and the effectiveness of US Ecology Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K of US Ecology Inc. for the year ended December 31, 2019.

/s/ DELOITTE & TOUCHE LLP

Boise, Idaho
March 2, 2020

Exhibit 31.1

I, Jeffrey R. Feeler, certify that:

1. I have reviewed this annual report on Form 10-K of US Ecology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

    c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ JEFFREY R. FEELER
President and Chief Executive Officer

March 2, 2020

Exhibit 31.2

I, Eric L. Gerratt, certify that:

1. I have reviewed this annual report on Form 10-K of US Ecology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ ERIC L. GERRATT
Executive Vice President, Chief Financial Officer
and Treasurer

March 2, 2020

Exhibit 32.1

Written Statement of the Chief Executive Officer
Pursuant to 18 U.S.C. §1350

Solely for the purposes of complying with 18 U.S.C. §1350, I, the undersigned Chief Executive Officer of US Ecology, Inc., (the "Company"), hereby certify, that to my knowledge, the Annual Report on Form 10-K of the Company for the period ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates hereof and for the periods expressed in this Report.

/s/ JEFFREY R. FEELER
President and Chief Executive Officer

March 2, 2020

Exhibit 32.2

Written Statement of the Chief Financial Officer
Pursuant to 18 U.S.C. §1350

Solely for the purposes of complying with 18 U.S.C. §1350, I, the undersigned Chief Financial Officer of US Ecology, Inc., (the "Company"), hereby certify, that to my knowledge, the Annual Report on Form 10-K of the Company for the period ended December 31, 2019 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates hereof and for the periods expressed in this Report.

/s/ ERIC L. GERRATT
Executive Vice President, Chief Financial Officer
and Treasurer

March 2, 2020