US ECOLOGY, INC.
Form 424B5
December 02, 2013

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Registration No.: 333-187001

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 2, 2013

PROSPECTUS SUPPLEMENT (To Prospectus dated April 30, 2013)

2,600,000 Shares

Common Stock

US Ecology, Inc.

We are offering 2,600,000 shares of our common stock, par value $0.01 per share, at a public offering price of $ per share.

Our common stock is listed on the NASDAQ Global Select Market under the symbol "ECOL." On November 27, 2013, the reported last sale price of our common stock on the NASDAQ Global Select Market was $38.47 per share.

Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page S-11 of this prospectus supplement.

	Per Share	Total
Price to the public	$	$
Underwriting discounts and Commissions(1)	$	$

Proceeds, before expenses, to US Ecology, Inc.	$	$

(1) We have agreed to reimburse the underwriters for certain expenses. See "Underwriting; Conflicts of Interest."

We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to an additional 390,000 shares of our common stock from us. If the underwriters exercise this option in full, the total underwriting discounts will be $, and our total proceeds, before expenses, will be $.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the shares of our common stock to purchasers on or about December , 2013.

Joint Book-Running Managers

Wells Fargo Securities **Credit Suisse**

Co-Managers

Raymond James **KeyBanc Capital Markets** **Wunderlich Securities** **Houlihan Lokey**

The date of this prospectus supplement is , 2013.

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We and the underwriters have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus or in any "free writing prospectus" prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the terms of the offering of shares of our common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus, provides more general information about us and the common stock offered hereby. Generally, when we refer to this prospectus, we are referring to both parts of this document combined together with all documents incorporated by reference. To the extent there is a conflict between the information contained in this prospectus supplement or any "free writing prospectus" we may authorize to be delivered to you, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement or such "free writing prospectus", as the case may be, provided that, if any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

We and the underwriters have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus or in any "free writing prospectus" prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

We and the underwriters are offering to sell, and seeking offers to buy, our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement, the accompanying prospectus and the offering of our common stock in certain jurisdictions may be restricted by law. Neither we nor the underwriters have done anything that would permit this offering, or possession or distribution of this prospectus, in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus supplement and accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement and accompanying prospectus outside the United States. This prospectus supplement and accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any common stock offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation. The information contained, or incorporated by reference, in this prospectus supplement and contained, or incorporated herein by reference, in the accompanying prospectus is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of our common stock.

It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents we have referred you to in the section entitled "Where You Can Find More Information" in this prospectus supplement and the accompanying prospectus and any "free writing prospectus" we may authorize to be delivered to you.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus supplement and the accompanying prospectus were made solely for the benefit of the parties to such agreement and the third-party beneficiaries named therein, if any, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless the context otherwise requires, in this prospectus supplement, "US Ecology," the "Company," "we," "us," "our" and similar names refer to US Ecology, Inc. and its subsidiaries.

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FORWARD-LOOKING STATEMENTS

This prospectus supplement 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, dividends, the likelihood of our success in expanding our business, financing plans, budgets, working capital needs and sources of liquidity.

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

Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the Securities and Exchange Commission, or 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 "Risk Factors" in this prospectus supplement and "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2012, and in subsequent filings, which are incorporated by reference into this prospectus supplement and the accompanying prospectus, could harm our business, prospects, operating results, and financial condition.

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

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement and in the accompanying prospectus and in the documents we incorporate by reference herein and therein. This summary does not contain all the information you should consider before investing in shares of our common stock in this offering. You should carefully read this entire prospectus supplement and the entire accompanying prospectus, including the "Risk Factors" section beginning on page S-11 of this prospectus supplement and in our Annual Report on Form 10-K, and the consolidated financial statements and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. If you invest in our common stock, you are assuming a high degree of risk.

Our Company

We are a leading North American provider of environmental services, and have been managing, transporting, treating, recycling and disposing of regulated waste streams for over 60 years. In 2012 we processed over one million tons of regulated waste, including hazardous, non-hazardous, polychlorinated biphenyls, or PCBs, and radioactive waste generated by our commercial and government customers.

Our customers require specialized treatment, disposal and recycling of waste they generate that are regulated under applicable federal, state, provincial and local environmental regulations. We operate one of the largest networks of treatment and disposal assets for hazardous and non-hazardous waste in North America. For many of our larger customers, we offer cradle-to-grave transportation and logistics services by managing their waste streams from origination to disposal. Our six disposal facilities are strategically located across North America and are permitted to manage a wide range of regulated waste streams. As of September 30, 2013, we operated treatment and disposal facilities in the locations highlighted below:

We serve large and diverse end markets including commercial industry and federal, state and local governments. Commercial industry end markets include oil field development, oil refineries, petrochemical, steel, electric utilities, automobile, aerospace, large and small manufacturers and academic institutions. Governmental end markets include a variety of state and local governments, as well as federal government agencies, including the Environmental Protection Agency, or U.S. EPA, the Department of Defense, or DOD, and the U.S. Army Corps of Engineers, among others. We employ a highly experienced sales force to serve our largest customers directly and who also manage an extensive indirect sales channel consisting of brokers, aggregators, treatment, storage and disposal facilities, known as TSDFs, and other national service providers. This combination of our direct and indirect sales channels has allowed us to generate recurring revenue and efficiently access highly fragmented

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end markets. Our largest customer in 2012 represented only 6% of our revenue and our top ten customers accounted for less than 35% of our revenue. During the nine months ended September 30, 2013, our largest customer represented only 8% of revenue and our top ten customers accounted for less than 40% of our revenue.

During fiscal year 2012, we generated total revenues and Adjusted EBITDA of $169 million and $58 million, respectively. During the nine months ended September 30, 2013, we generated total revenues and Adjusted EBITDA of $142 million and $51 million, respectively, an increase of 19.4% and 19.3%, respectively, over the same period in the prior year. Our net income for fiscal year 2012 and the nine months ended September 30, 2013 was $26 million and $23 million, respectively. See "Summary Financial Data Other Financial Metrics" for a calculation and reconciliation of net income to Adjusted EBITDA for the periods presented.

Our Services

We generate revenue primarily from managing, treating, recycling and disposing of hazardous, non-hazardous, PCB and radioactive waste in government permitted facilities. We also derive revenue from transportation and logistics services, generally for transferring material from the customer location to one of our facilities. We provide services to our customers within two categories, consisting of:

Treatment and Disposal, or T&D, Services (83% of total revenue for the nine months ended September 30, 2013) we provide a broad range of waste treatment services including stabilization, solidification, encapsulation, thermal recycling and hazardous liquid processing co-located at our six Company-operated treatment and disposal facilities. T&D revenue can be broken down into two categories: "Base Business" and "Event Business."

Base Business (64% of T&D revenue for the nine months ended September 30, 2013) consists of waste streams generated through ongoing industrial processes that are generally recurring. The types and amounts of waste received from recurring customers vary quarter-to-quarter, sometimes significantly, but are generally more predictable than project-based work, or "Event Business." Significant drivers in the Base Business segment are overall industrial production and changes to the regulatory environment for hazardous and radioactive waste.

Event Business (36% of T&D revenue for the nine months ended September 30, 2013) generally consists of waste generated from discrete one-time waste clean-up projects. The duration of Event Business projects can last from a one-week clean-up of a small contaminated site to a multiple year clean-up project. Several of our Event Business customers utilize our services for multiple or frequent projects, resulting in recurring revenue. While general economic conditions often drive the aggregate demand for clean-up projects, other drivers such as government funding, regulatory developments, environmental enforcement actions, and large project management can materially impact the variability of Event Business revenue.

Transportation Services (17% of total revenue for the nine months ended September 30, 2013) we provide a wide variety of transportation logistics support on customer sites and other locations. We utilize our network of contracted and owned truck and rail assets, three rail transfer facilities and specialized handling equipment to safely manage and transport waste from customers nationwide to our facilities. Typically our transportation services are provided as a value-added service, priced at or near cost and bundled with our T&D services along with other value-added logistics and field services support work to help win new business.

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The Environmental Services Industry

In 2012, the industry grew 3.2% compared to 2011, resulting in $10.1 billion of sales according to the Environmental Business Journal, which includes commercial industrial waste management, commercial radioactive waste management, hazardous and radioactive waste management contracts at federal facilities and medical waste management totaling $3.0 billion, $1.1 billion, $3.6 billion, and $2.4 billion, respectively. The largest commercial producers of hazardous waste materials are companies in the chemical, petrochemical, primary metals, paper, furniture, aerospace and pharmaceutical industries. The federal government is also one of the largest generators of hazardous and radioactive waste. Radioactive waste includes Low-Level Radioactive Waste, or LLRW, Low-Activity Radioactive Material, or LARM, and Naturally Occurring and Accelerator Produced Radioactive Materials, or NORM/NARM. All areas of the hazardous and radioactive waste market face significant government regulation at the federal, state, provincial and local level, driving demand for our services.

In the U.S., the hazardous waste sector is regulated under the Resource Conservation and Recovery Act, or RCRA, which created a cradle-to-grave system governing 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, facilities that treat, store, or dispose of hazardous waste must obtain a permit, either from the U.S. EPA or from a state agency to which the U.S. EPA has delegated oversight authority.

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

We operate four of the twenty landfills in the U.S. and Canada that are permitted to accept RCRA wastes, in Beatty, Nevada; Robstown, Texas; Grand View, Idaho; and Blainville, Quebec, Canada. Our Beatty, Nevada and Grand View, Idaho facilities are also authorized to dispose of PCB waste regulated under the Toxic Substances Control Act of 1976, or TSCA, which is administered by the U.S. EPA. To service radioactive waste producers, we also operate one of the four licensed radioactive disposal facilities in the United States in Richland, Washington. In addition, we have expanded our permits at our Grand View, Idaho facility to accept LARM and other LLRW waste that has been exempt from regulation under the Atomic Energy Act of 1954.

We face a wide range of competitors of various sizes that provide a number of services, including transportation, treatment, storage, disposal, recycling and field services. We believe we have a significant competitive advantage over many players in the sector due to our difficult-to-replicate disposal assets and geographical reach in North America. We expect that these assets, coupled with significant regulatory requirements and know-how, will help drive our long-term success.

Competitive Strengths

Difficult-to-Replicate Infrastructure

We operate six disposal facilities located across North America, which are permitted to accept a wide range of waste, including hazardous, PCB, non-hazardous, low-activity radioactive and low-level radioactive waste. We consider our disposal facilities to be difficult to replicate due to the current regulatory environment for hazardous waste processing facilities, which includes the generally high cost of obtaining permits, multi-year permitting time frames, uncertainty of outcome, high initial capital expenditures and the potential for community-based opposition to the development of new facilities. As a result, it has been at least 15 years since a new hazardous waste landfill or incinerator has been built

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in the United States. We operate four of twenty landfills in the U.S. and Canada that are permitted to accept RCRA wastes. Our Richland, Washington LLRW facility is one of only three full-service Class A, B, and C disposal facilities in the U. S. and the facility's personnel have extensive experience safely managing radioactive waste through the use of shielding and remote handling devices. We also own and manage a fleet of 234 gondola railcars and three rail transfer stations. Together, these assets allow us to service a wide range of geographies, customers and industries.

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 hazardous and radioactive waste regulation. As a result of our regulatory and permitting expertise, we maintain a regulatory compliance and permitting program at our disposal facilities that has allowed us to obtain additional approvals to expand our service offering in terms of the types, amounts and concentrations of wastes that we accept. Our track record of successfully navigating government regulatory and permitting processes serves as a consistent competitive advantage.

A Market Leader in Hazardous & Non-Hazardous Waste Treatment and Disposal

We are a leader in the North American hazardous waste services sector with over six decades of experience. In 2012, we disposed over one million tons of regulated waste, including hazardous, non-hazardous, PCBs and radioactive material. Our collection of disposal assets combined with our transportation network provides us with coast-to-coast treatment and disposal capabilities, allowing us to serve a wide mix of customers and industries across the United States and Canada. We operate four of 20 RCRA landfills in North America, demonstrating our leadership position.

Diverse Markets and Customer Base

In 2012, we serviced approximately 1,000 commercial and governmental entities, such as refineries, chemical production facilities, electric utilities, heavy manufacturers, steel mills, waste brokers and medical and academic institutions. Our broad range of end-markets gives us exposure to a variety of industrial cycles, creating stability for our overall business. Additionally, we have low customer concentration, with our largest account representing 6% of sales and our top ten customers representing less than 35% of sales in fiscal year 2012.

Steady, Recurring Revenue and Industry-Leading Margins

Since 2009, we have generated solid revenue growth, cash flow generation and robust margins. We have historically focused on operating leverage and operational efficiency and adjusted our service mix to benefit from higher margin, recurring business offerings. Starting in 2008, we have shifted our strategy to focus on expanding our recurring Base Business revenue. As a result, Base Business revenue represented 64% of T&D revenue for the nine months ended September 30, 2013, up from 50% in 2008. As we continue to expand our Base Business, we have become more diversified and less dependent on large Event Business work to drive revenue growth. For the nine months ended September 30, 2013, we generated Adjusted EBITDA of $51 million, representing a 36% margin, and net income of $23 million. See "Summary Financial Data Other Financial Metrics" for a calculation and reconciliation of net income to Adjusted EBITDA for the periods presented. We believe we are well positioned to further extend this strong financial performance by successfully executing on our organic growth strategies, capitalizing on positive market dynamics and supplementing our business with targeted, complementary acquisitions.

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Solid Safety and Compliance Record

Safety and environmental compliance is a cornerstone of US Ecology's business. The Company has dedicated environmental professionals who oversee and manage safety and environmental programs including, but not limited to, employee training, internal and external audits, safety incentive programs, Voluntary Protection Programs, or VPP, the Safety & Health Achievement Recognition Program, and ISO 9001 and ISO 14001 programs. Dedicated senior managers regularly review and discuss environmental and safety results with management to ensure regulatory compliance. In addition, we have received multiple site safety awards including the VPP Star Worksite Award, Thoroughbred Safety Award and the CSX Chemical Safety Award.

Experienced Management Team with Proven Track Record

We are led by an experienced management team with an average of over 14 years of industry and technical experience and a proven track record of successfully operating through multiple economic cycles. Our President and CEO, Jeff Feeler, joined our Company in 2006 and served as our CFO from 2007 to 2012. Our management team has extensive and demonstrated experience pursuing new market opportunities, expanding through acquisitions and maintaining a strong culture of safety and compliance. Since 2008, the management team has effectively executed on its strategy by growing its North American footprint coast-to-coast, expanding its service offering through permit and service expansion, increasing its Base Business and other recurring revenue streams and acquiring and integrating the businesses of Stablex Canada Inc. and US Ecology Michigan, Inc.

Our Strategy

Our strategy is to capitalize on our unique and difficult-to-replicate disposal assets so that we continue serving the needs of our diverse client base by maintaining our commitment to customer service. We aim to execute on internal marketing initiatives to drive organic growth and intend to pursue acquisition opportunities that will enhance our capabilities and expand our customer reach.

The principal elements of our business strategy are to:

Leverage Regulatory Expertise to Expand Permit Capabilities and Broaden Service Offerings

We have a proven track record of leveraging our regulatory expertise to broaden our service offerings. As part of this strategy, our sales teams engage customers to identify new service opportunities and work with our regulatory affairs personnel to jointly assess market opportunities through permit expansion. For example, in 2007 our sales team identified an opportunity to address a growing need to handle special nuclear material, or SNM, and byproduct radioactive material. They worked with our regulatory affairs team to advocate for a change in Idaho law and obtained a permit to handle such material at our Grand View, Idaho facility, directly leading to new sales opportunities. As part of our business strategy, we expect to pursue new service expansion permits and increase the disposal capacity at our landfills, as frequently required by the evolving needs of our customers.

Continue to Build on Our Robust Waste Handling Infrastructure to Increase Revenue from Our Existing Assets

We have a unique set of treatment, recycling and disposal assets in the highly regulated hazardous and radioactive waste markets. We aim to enhance our treatment capabilities at our existing facilities in order to handle additional waste streams and maximize throughput. We also seek to maximize the utilization of our Company-owned rail assets in order to provide our customers with flexible and cost-effective disposal solutions. We also continue to invest in our infrastructure to ensure we have ample surge capacity for increases in our Event Business while continuing to support our Base Business customers. We also expect to continue to expand our thermal recycling of oil bearing hazardous waste,

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which is co-located at our Robstown, Texas site and yields a profitable secondary revenue stream for recovered oil and metals.

Execute on Marketing Initiatives to Grow Organically

Our sales team is focused on expanding treatment and disposal capabilities into new high margin, niche waste streams that our competitors may not be able to obtain the necessary regulatory authorizations for or handle cost-effectively. We expect to expand into new markets and to offer new services so that we continue harvesting our inherent operating leverage by driving incremental volume into our existing disposal facilities. Our strategy is to have our Base Business cover our fixed overhead costs along with a reasonable profit, therefore allowing the majority of T&D revenue generated from our Event Business to be realized as operating profit. We aim to continue to build our Base Business while remaining flexible enough to serve our customers' event-driven needs.

Pursue a Disciplined Acquisition Strategy to Add Complementary Capabilities

We plan to pursue selective acquisitions that expand our disposal network and geographic footprint. We have had success historically with our targeted acquisition strategy, acquiring Stablex Canada Inc. in 2010 and Dynecol, Inc. (now US Ecology Michigan, Inc.) in 2012. Both acquisitions expanded our physical presence and customer base as well as enhanced our service offerings. We also expect to seek acquisition opportunities that enable us to fill gaps in capabilities across the hazardous waste value chain while maintaining our commitment to customer service.

Corporate Information

Headquartered in Boise, Idaho, we are a leading North American provider of environmental services. The Company and its predecessor companies have been in business for over 60 years. We employed 455 people as of November 22, 2013.

The Company was most recently incorporated as a Delaware corporation in May 1987 as American Ecology Corporation. Our principal executive offices are located at 251 E. Front Street, Suite 400, Boise, ID 83706 and our telephone number is (208) 331-8400. Our website is www.usecology.com. The information on our website is not incorporated by reference into this prospectus supplement or any accompanying prospectus. On February 22, 2010, the Company changed its name from American Ecology Corporation to US Ecology, Inc.

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THE OFFERING

Issuer:	US Ecology, Inc.
Common stock offered by us pursuant to this prospectus supplement	2,600,000 shares
Option to purchase additional shares	We have granted the underwriters an option for a period of 30 days from the date of this prospectus supplement to purchase up to 390,000 additional shares of common stock.
Common stock estimated to be outstanding immediately after this offering*	21,134,210 shares (21,524,210 shares if the underwriters exercise in full their option to purchase 390,000 additional shares of common stock)
Use of Proceeds	We currently intend to use the net proceeds of this offering for general corporate purposes, which will include the repayment of debt under our Existing Credit Facility (as defined in "Use of Proceeds"), and to fund potential future acquisitions. See "Use of Proceeds" on page S-14 of this prospectus supplement.
Market for the common stock	Our common stock is quoted and traded on the NASDAQ Global Select Market under the symbol "ECOL."
Conflict of Interest	Because an affiliate of Wells Fargo Securities, LLC is the lender under our Existing Credit Facility and will be receiving more than 5% of the net offering proceeds in connection with the repayment of outstanding loans under our Existing Credit Facility, Wells Fargo Securities, LLC, an underwriter in this offering, is deemed to have a "conflict of interest" with us under Rule 5121 of the Financial Industry Regulatory Authority, Inc. Wells Fargo Securities, LLC will not confirm sales of the shares of common stock to any account over which it exercises discretionary authority without the prior written approval of the customer. See "Underwriting; Conflicts of Interest" beginning on page 17 of this prospectus supplement.
Risk Factors	See "Risk Factors" beginning on page S-11 of this prospectus supplement and in our Annual Report on Form 10-K for the year ended December 31, 2012 for a discussion of risk factors you should consider carefully before deciding to invest in shares of our common stock.

*

The number of shares of our common stock to be outstanding after this offering is based on 18,534,210 shares of common stock outstanding as of September 30, 2013. Unless specifically stated otherwise, the information in this prospectus supplement excludes:

408,142 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2013, at a weighted average exercise price of $22.45 per share, of which options to purchase 137,216 shares of our common stock were then exercisable;

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up to 51,800 shares reserved as of September 30, 2013 for future issuance upon settlement of restricted stock awards granted under our 2005 Director Stock Plan and 2006 Employee Stock Plan; and

an aggregate of 1,017,062 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under our 2008 Stock Option Incentive Plan and 2005 Director Stock Plan, as of September 30, 2013.

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SUMMARY FINANCIAL DATA

The following tables set forth summary financial data at December 31, 2012, December 31, 2011 and December 31, 2010 and for the years ended December 31, 2012, December 31, 2011 and December 31, 2010, as well as summary financial data at September 30, 2013 and September 30, 2012 and for the nine-month periods ended September 30, 2013 and September 30, 2012. The summary financial data at December 31, 2012 and December 31, 2011 and for the years ended December 31, 2012, December 31, 2011, and December 31, 2010 are derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, which is filed with the SEC and incorporated by reference into this prospectus supplement and the accompanying prospectus. The summary financial data at September 30, 2013 and for the nine-month periods ended September 30, 2013 and September 30, 2012 are derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the nine-month period ended September 30, 2013, which is filed with the SEC and incorporated by reference into this prospectus supplement and the accompanying prospectus. The summary financial data at December 31, 2010 is derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2010. You should read such selected financial data in conjunction with the audited and unaudited consolidated financial statements and the related notes thereto and with "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2012 and such Quarterly Report on Form 10-Q for the nine-month period ended September 30, 2013 incorporated by reference into this prospectus supplement and accompanying prospectus. The interim results set forth below are not necessarily indicative of results for the year ended December 31, 2013 or for any other period.

	Nine Months Ended September 30,		Year Ended December 31,		
$s in thousands, except per share amounts	**2013**	**2012**	**2012**	**2011**	**2010**
Income Statement Data:					
Revenue	$ 141,766	$ 118,732	$ 169,138	$ 154,917	$ 104,836
Operating income	37,577	29,824	40,638	32,365	20,377
Foreign currency gain (loss)	(1,448)	1,775	1,213	(1,321)	1,819
Income tax expense	12,813	12,078	16,059	11,437	9,602
Net income	22,944	19,547	25,659	18,370	12,584
Earnings per share basic:	$ 1.25	$ 1.07	$ 1.41	$ 1.01	0.69
Earnings per share diluted:	$ 1.24	$ 1.07	$ 1.40	$ 1.01	$ 0.69
Shares used in earnings per share calculation:					
Basic	18,395	18,228	18,238	18,198	18,170
Diluted	18,475	18,262	18,281	18,223	18,189
Dividends paid per share	$ 0.36	$ 0.54	$ 0.90	$ 0.72	$ 0.72
Balance Sheet Data:					
Total assets	$ 230,731	$ 223,720	$ 218,694	$ 202,588	$ 217,349
Working capital(1)	17,349	12,760	13,021	8,772	18,693
Long-term debt	35,500	47,200	45,000	40,500	63,003
Stockholders' equity	129,908	111,552	112,022	100,163	94,712
Return on invested capital(2)	16.6%	14.7%	14.6%	12.0%	12.7%

(1) Calculated as current assets minus current liabilities.

(2) Calculated as operating income less applicable taxes divided by the sum of stockholders' equity, long-term debt, closure and post-closure obligations and monetized operating leases, less cash and short-term investments.

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Other Financial Metrics

Adjusted EBITDA is defined as net income before net interest expense, income tax expense, depreciation, amortization, stock based compensation, accretion of closure and post-closure liabilities, foreign currency gain/loss and other income/expense, which are not considered part of usual business operations. 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; and
- Although depreciation and amortization charges are non-cash charges, the assets being depreciated and amortized will often have to be replaced in the future, and Adjusted EBITDA does not reflect any cash requirements for such replacements.

The following reconciliation itemizes the differences between reported net income and Adjusted EBITDA for the years ended December 31, 2012, 2011, and 2010 and for the nine months ended September 30, 2013 and 2012:

	For the Nine Months Ended September 30,		For the Year Ended December 31,		
($ thousands)	**2013**	**2012**	**2012**	**2011**	**2010**
Net Income	$ 22,944	$ 19,547	$ 25,659	$ 18,370	$ 12,584
Income tax expense	12,813	12,078	16,059	11,437	9,602
Interest expense, net	640	646	861	1,578	269
Foreign currency (gain)/loss	1,448	(1,775)	(1,213)	1,321	(1,819)
Other (income)/expense	(268)	(672)	(728)	(341)	(259)
Depreciation and amortization of plant and equipment	10,792	10,222	13,916	13,933	7,750
Amortization of intangibles	1,092	1,096	1,469	1,419	231
Stock-based compensation	601	564	846	837	988
Accretion and non-cash adjustments of closure & post-closure liabilities	927	1,018	1,483	1,295	1,288
Adjusted EBITDA	$ 50,989	$ 42,724	$ 58,352	$ 49,849	$ 30,634

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RISK FACTORS

Investing in our common stock involves risk. You should carefully consider the specific risks discussed or incorporated by reference into this prospectus supplement and the accompanying prospectus. You should also consider the risks, uncertainties and assumptions discussed under the caption "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2012 and in subsequent filings, which are incorporated by reference into this prospectus supplement and the accompanying prospectus. These risk factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to this Offering

We will have broad discretion in how we use the net proceeds from this offering, and we may use the net proceeds in ways in which you and other stockholders may not agree with.

We intend to use the net proceeds from this offering for general corporate purposes, which will include the repayment of debt under our Existing Credit Facility, and to fund potential future acquisitions. Our management will have broad discretion in the application of the net proceeds from this offering and could spend the net proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock. You will not have the opportunity, as part of your investment decision, to assess whether our net proceeds are being used appropriately. In addition, we may not be able to invest the net proceeds from this offering in assets that will generate a rate of return equal to the rate of return on invested capital that the Company has historically delivered.

Low trading volume of our common stock may adversely affect the price of our shares.

Our common stock has experienced limited trading volume. There can be no assurance the volume of trading in our common stock will increase after this offering or that a liquid market for our common stock will develop or be sustained. Limited trading volume subjects our common stock to greater price volatility and may make it difficult for you to sell your shares at a price that is attractive to you.

We may use the net proceeds to fund future acquisitions and as a result of such future acquisitions, we may not be able or willing to pay future dividends.

We intend to use the net proceeds from this offering to partially fund acquisitions, which acquisitions may be material. To the extent we engage in a material acquisition, the decision to undertake such a transaction reflects the belief of our board of directors and management that the investment of the Company's capital in acquired companies to grow our business is in our stockholders' best interests. As a result, in the event we consummate such a material acquisition, our board of directors may elect to no longer declare and pay a quarterly dividend. In addition, the terms of any debt financing that we may need to partially fund any such material acquisition may also restrict or limit us from paying dividends.

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

Our board of directors has the power to issue additional shares of common stock or preferred stock without stockholder approval. If additional funds are raised through the issuance of equity or

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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 will 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 will 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.

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 will 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. 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 obtaining financing for acquisitions to investment banks and others finding acquisitions for us. 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.

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

Acquisitions involve numerous risks, including the following:

- 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;
- inability to negotiate effective indemnification protection from the seller, or inability to collect in the event of an indemnity claim;
- 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, including with respect to environmental matters, with regard to acquired companies that did not have adequate internal controls;
- 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;
- potential loss of key employees and customers of the acquired company; and

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future write-offs of intangible and other assets, including goodwill, if the acquired operations fail to generate sufficient cash flows.

Current estimates of our anticipated results may not be achieved.

Management's estimates of our anticipated results for the year ending December 31, 2013 and our preliminary outlook for 2014 are based upon a number of assumptions. While our 2013 estimates are presented with numerical specificity and management considers our 2013 estimates and preliminary outlook for 2014 to be reasonable, they are inherently subject to business, economic and competitive uncertainties and actual results could differ materially, particularly if actual events differ from one or more of our key assumptions.

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

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

The price of our common stock has fluctuated in the past and this may make it difficult for you to resell shares of common stock owned by you at times or may make it difficult for you to sell shares of common stock at prices you 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 shareholders;

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."

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USE OF PROCEEDS

We expect to receive net proceeds of approximately $94.9 million from the sale of 2,600,000 shares of our common stock in this offering, or approximately $109.2 million if the underwriters exercise their option to purchase additional shares in full, based on an assumed public offering price of $38.47 per share (which was the last reported closing price for our common stock, as reported on the NASDAQ Global Select Market, on November 27, 2013), after deducting underwriting discounts and commissions and estimated offering expenses payable by us and before deducting the repayment of outstanding revolving debt as described below.

We currently intend to use the net proceeds of this offering for general corporate purposes, which will include the repayment of approximately $35.5 million of our revolving debt issued under a credit agreement, dated October 29, 2010 with Wells Fargo Bank, National Association (the "Existing Credit Facility"). The Existing Credit Facility has a maturity date of November 1, 2015 and had an effective interest rate of 1.43% at September 30, 2013. We may also use a portion of the proceeds for the potential acquisition of companies that complement our business, although we have no current understandings, commitments or agreements to do so. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, and as a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

An affiliate of Wells Fargo Securities, LLC is the lender under our Existing Credit Facility. As a result, Wells Fargo Securities, LLC will receive a portion of the net proceeds from this offering used to repay outstanding debt under the Existing Credit Facility. See "Underwriting; Conflicts of Interest."

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CAPITALIZATION

The following table sets forth our cash, cash equivalents and capitalization as of September 30, 2013 on an actual basis and on an as adjusted basis to reflect our receipt of estimated net proceeds of approximately $59.4 million from the sale of shares of common stock in this offering, based on an assumed public offering price of $38.47 per share (which was the last reported closing price for our common stock, as reported on the NASDAQ Global Select Market, on November 27, 2013), after deducting underwriting discounts and commissions and estimated offering expenses payable by us, the repayment of outstanding revolving debt issued under our Existing Credit Facility as described in "Use of Proceeds," and assuming no exercise of the underwriters' option to purchase additional shares.

The historical data in the table is derived from, and should be read in conjunction with, our historical financial statements, including accompanying notes, incorporated by reference in this prospectus supplement. You should also read this table in conjunction with the sections entitled "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the related notes thereto from our Annual Report on Form 10-K for the year ended December 31, 2012 and Quarterly Report on Form 10-Q for the quarter ended September 30, 2013.

	As of September 30, 2013	
	Actual	As Adjusted(1)
	($ in thousands)	
Cash and cash equivalents	$ 4,378	$ 63,779
Long-term debt:		
Existing Revolving Line of Credit	$	
Existing Reducing Revolving Line of Credit	$ 35,500	
Total long-term debt	$ 35,500	$
Stockholders' equity:		
Common stock $0.01 par value, 50,000,000 authorized, actual and as adjusted; 18,534,210 issued, actual; 21,134,210 issued, as adjusted	$ 185	211
Additional paid-in capital	$ 65,838	160,713
Retained earnings	$ 64,723	64,723
Treasury stock, at cost, 19,000 and 19,000 shares, respectively	$ (319)	(319)
Accumulated other comprehensive income (loss)	$ (519)	(519)
Total stockholders' equity	$ 129,908	$ 224,809
Total capitalization	$ 165,408	$ 224,809

(1) Excludes: (i) 408,142 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2013, at a weighted average exercise price of $22.45 per share, of which options to purchase 137,216 shares of our common stock were then exercisable; (ii) up to 51,800 shares reserved as of September 30, 2013 for future issuance upon settlement of restricted stock awards granted under our 2005 Director Stock Plan and 2006 Employee Stock Plan; and (iii) an aggregate of 1,017,062 shares of our common stock reserved for future grants of stock options (or other similar equity instruments) under our 2008 Stock Option Incentive Plan and 2005 Director Stock Plan, as of September 30, 2013.

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DESCRIPTION OF OUR COMMON STOCK

The following description is a general summary of the terms of the shares of common stock that we may issue. The description below is subject to and qualified in its entirety by reference to our Restated Certificate of Incorporation and Amended and Restated Bylaws, copies of which have been filed previously with the SEC, and to the more complete description in the accompanying prospectus under the caption "Description of Capital Stock." Please refer to "Where You Can Find More Information" in the accompanying prospectus for directions on obtaining these documents.

As of September 30, 2013, we are authorized to issue 50,000,000 shares of common stock, $0.01 par value per share. As of September 30, 2013, we had 18,534,210 shares of common stock outstanding.

General

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. Our Restated Certificate of Incorporation, as amended, provides for cumulative voting in connection with the election of directors. The holders of our common stock are entitled to dividends, if any, as our board of directors may declare from time to time from funds legally available for that purpose, subject to the holders of other classes of stock, if any, at the time outstanding having prior rights as to dividends, if any.

Upon any voluntary or involuntary liquidation, dissolution, or winding up of our affairs, the holders of our common stock are entitled to share ratably in all assets remaining after the payment of creditors, subject to any prior liquidation distribution rights of holders of other classes of stock, if any, at the time outstanding. Holders of our common stock have no preemptive, conversion, redemption or sinking fund rights. The outstanding shares of our common stock are, and the shares of common stock to be offered hereby when issued will be, validly issued, fully paid and non-assessable.

The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Co. and its address and telephone number are 59 Maiden Lane Plaza Level, New York, NY 10038 and (800) 937-5449, respectively.

NASDAQ Listing

Our common stock is listed on the NASDAQ Global Select Market under the symbol "ECOL."

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UNDERWRITING; CONFLICTS OF INTEREST

Subject to the terms and conditions set forth in an underwriting agreement, we have agreed to sell to the underwriters named below, and the underwriters, for whom Wells Fargo Securities, LLC and Credit Suisse Securities (USA) LLC are acting as joint-book running managers and representatives, have severally and not jointly agreed to purchase, the respective numbers of shares of common stock appearing opposite their names below:

Underwriter	Number of Shares
Wells Fargo Securities, LLC	
Credit Suisse Securities (USA) LLC	
Raymond James & Associates, Inc.	
KeyBanc Capital Markets Inc.	
Wunderlich Securities, Inc.	
Houlihan Lokey Capital, Inc.	
Total	

All of the shares to be purchased by the underwriters will be purchased from us.

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock are subject to various conditions, including delivery of customary legal opinions by counsel. The shares of common stock are offered by the underwriters, subject to prior sale, when, as and if issued to and accepted by them. The underwriters reserve the right to withdraw, cancel or modify the offer and to reject orders in whole or in part.

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock offered by this prospectus if any are purchased, other than those shares covered by the underwriters' option to purchase additional shares of common stock described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

Option to Purchase Additional Securities

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to a total of 390,000 additional shares of common stock from us at the public offering price per share less the underwriting discounts and commissions per share, as set forth on the cover page of this prospectus, and less an amount per share equal to any dividends or distributions declared, paid or payable by the Company on the shares that the underwriters have agreed to purchase from us but that are not payable on such additional shares. If the underwriters exercise this option in whole or in part, then the underwriters will be severally committed, subject to the conditions described in the underwriting agreement, to purchase the additional shares of common stock in proportion to their respective commitments set forth in the prior table.

Discounts and Commissions

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus and to certain dealers at that price less a concession of not more than $ per share. After the initial offering, the public offering price and concession to dealers may be changed.

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The following table summarizes the underwriting discounts and commissions and the proceeds, before expenses, payable by us, both on a per share basis and in total, assuming either no exercise or full exercise by the underwriters of their option to purchase additional shares of common stock:

		Total	
	Per Share	Without Option	With Option
Public Offering Price	$	$	$
Underwriting Discounts and Commissions	$	$	$
Proceeds to US Ecology, Inc. (before expenses)	$	$	$

We estimate that the expenses of this offering payable by us, not including underwriting discounts and commissions, will be approximately $350,000. We have also agreed to reimburse the underwriters for certain of their expenses relating to required reviews by the FINRA up to $.

Indemnification of Underwriters

The underwriting agreement provides that we will indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933 (the "Securities Act"), or contribute to payments that the underwriters may be required to make in respect of those liabilities.

Lock-Up Agreements

We and certain of our directors and executive officers have agreed, subject to certain exceptions, that, without the prior written consent of Wells Fargo Securities, LLC and Credit Suisse Securities (USA) LLC, as representatives of the several underwriters, we and they will not, during the period beginning on and including the date of this prospectus through and including the date that is the 90th day after the date of this prospectus (the "lock-up period"), directly or indirectly:

- issue (in the case of us), offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of any shares of common stock or preferred stock or other capital stock or any securities convertible into or exercisable or exchangeable for our shares of common stock or other capital stock of the company, whether now owned or hereafter acquired during the lock-up period;

- in the case of us, file or cause the filing of any registration statement under the Securities Act with respect to any of our shares of our common stock or other capital stock or any securities convertible into or exercisable or exchangeable for any shares of our common stock or other capital stock; or

- enter into any swap or other agreement, arrangement or transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of any of our shares of common stock or other capital stock or any securities convertible into or exercisable or exchangeable for any of our shares of common stock or other capital stock;

whether any transaction in any of the foregoing bullet points is to be settled by delivery of any shares of common stock, other capital stock, other securities, in cash or otherwise, or publicly announce any intention to do any of the foregoing.

Subject to certain exceptions detailed in the underwriting agreement, prior to engaging in any transaction or taking any other action that is subject to the restrictions imposed by the lock-up through and including the last day of the lock-up period, the parties bound by the lock-up will not engage in any transaction prohibited by the lock-up agreement, unless they first give notice to us and will not consummate such transaction or take any such action unless it has received written confirmation from us that the lock-up period has expired. Furthermore, the parties bound by the lock-up agreement may

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not make any demand for or exercise any right with respect to the registration under the Securities Act, of any of our shares of common stock or other capital stock or any securities convertible into or exercisable or exchangeable for our shares of common stock or other capital stock, and we may, with respect to any shares of common stock or other capital stock or any securities convertible into or exercisable or exchangeable for shares of common stock or other capital stock owned or held (of record or beneficially) by such parties, cause the transfer agent or other registrar to enter stop transfer instructions and implement stop transfer procedures with respect to such securities during the lock-up period.

The lock-up restrictions described above do not apply to us, with respect to:

- the issuance of shares of common stock to the underwriters;
- the issuance of shares, and options to purchase shares, of common stock and restricted stock units pursuant to stock option plans, stock purchase or other equity incentive plans described in this prospectus, as those plans are in effect on the date of the underwriting agreement; and
- the issuance of shares of common stock upon the exercise of stock options issued under stock option or other equity incentive plans referred to in the immediately preceding bullet above, as those plans are in effect on the date of the underwriting agreement provided that each recipient executes and delivers to Wells Fargo Securities, LLC and Credit Suisse Securities (USA) LLC, acting on behalf of the underwriters, not later than one business day prior to the date of such issuance, a lock-up agreement;
- the filing of any registration statement on Form S-8 with the SEC relating to the offering of securities pursuant to the terms of a stock option or similar plan in effect on the date of the underwriting agreement.

In addition, the lock-up restrictions described in the foregoing do not apply solely to our directors and officers, with respect to:

- where the holder is a natural person; transfers as a bona fide gift or gifts or by will, by intestate succession or pursuant to a so-called "living trust" or other revocable trust established to provide for the disposition of property on such holder's death, in each case to any member of the immediate family member by any relationship by blood, marriage or adoption not more remote than the first cousin of such holder, or to a trust the beneficiaries of which are exclusively the undersigned or members of such holder's immediate family, or as a bona fide gift or gifts to a charity or educational institution;
- where the holder is a partnership or a limited liability company, to a partner or member, as the case may be, of such partnership or limited liability company if, in any such case, such transfer is not for value;
- pursuant to a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, *provided* that such plan does not provide for the transfer of common stock during the lock-up period and no mandatory or voluntary filing with the SEC or other public report, filing or announcement shall be made in respect of such trading plan during the lock-up period; and
- dispositions to the Company, or the withholding of shares of common stock by the Company, solely in connection with the payment of taxes and any exercise price due with respect to the vesting of restricted stock awards or the cashless exercise of stock options, insofar as such restricted stock or stock option is outstanding as of the date of the underwriting agreement; provided that, (i) no voluntary filing with the SEC or other public report, filing or announcement shall be made in respect of such transfer during the lock-up period, and (ii) if any filing with the SEC under Section 16 of the Exchange Act, or other public report, is

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required to be made, such report shall clearly indicate that the transfer relates to the payment of taxes due with respect to the vesting of restricted stock awards or the cashless exercise of stock options and that no shares were sold by the reporting person;

provided, that in the case of any transfer pursuant to the first and second bullet points above (i) the transferee executes and delivers to Wells Fargo Securities, LLC and Credit Suisse Securities (USA) LLC, acting on behalf of the underwriters, not later than one business day prior to such transfer, a lock-up agreement with terms no less favorable than the terms of the transferor's lock-up agreement, (ii) that no filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of common stock or other capital stock or any securities convertible into or exercisable or exchangeable for common stock or other capital stock shall be required to be made during the lock-up period and (iii) no filing with the SEC or other public report, filing or announcement shall be made in respect of such transfer during this lock-up period.

Wells Fargo Securities, LLC and Credit Suisse Securities (USA) LLC may, in their sole discretion and at any time or from time to time, without notice, release all or any portion of the shares of common stock or other securities subject to the lock-up agreements. Any determination to release any shares or other securities subject to the lock-up agreements would be based on a number of factors at the time of determination, which may include the market price of the shares of common stock, the liquidity of the trading market for the shares of common stock, general market conditions, the number of shares or other securities proposed to be sold or otherwise transferred and the timing, purpose and terms of the proposed sale or other transfer.

NASDAQ Global Select Market Listing

The common stock is traded on the NASDAQ Global Select Market under the symbol "ECOL."

Stabilization

In order to facilitate this offering of our shares of common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the market price of our shares of common stock. Specifically, the underwriters may sell more shares of common stock than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares of common stock available for purchase by the underwriters under the option to purchase additional shares of common stock. The underwriters may close out a covered short sale by exercising the option to purchase additional shares of common stock or purchasing shares of common stock in the open market. In determining the source of shares of common stock to close out a covered short sale, the underwriters may consider, among other things, the market price of shares of common stock compared to the price payable under the option to purchase additional shares of common stock. The underwriters may also sell shares of common stock in excess of their option to purchase additional shares of common stock, creating a naked short position. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of common stock in the open market after the date of pricing of this offering that could adversely affect investors who purchase in this offering.

As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of our shares of common stock, so long as stabilizing bids do not exceed a specified maximum. The underwriting syndicate may also reclaim selling concessions allowed to an underwriter or a dealer for distributing shares of common stock in this offering if the underwriting syndicate repurchases previously distributed shares of common stock to cover syndicate short positions or to stabilize the price of the shares of common stock.

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The foregoing transactions, if commenced, may raise or maintain the market price of our shares of common stock above independent market levels or prevent or retard a decline in the market price of the shares of common stock.

The foregoing transactions, if commenced, may be effected on the NASDAQ Global Select Market or otherwise. Neither we nor any of the underwriters makes any representation that the underwriters will engage in any of these transactions and these transactions, if commenced, may be discontinued at any time without notice. Neither we nor any of the underwriters makes any representation or prediction as to the direction or magnitude of the effect that the transactions described above, if commenced, may have on the market price of our common stock.

Electronic Distribution

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as email.

Conflicts of Interest

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory services, investment management, investment research, principal investment, hedging, financing and brokerage activities.

Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us and our affiliates, for which they have received or will receive customary fees and expenses.

Because an affiliate of Wells Fargo Securities, LLC is the lender under our Existing Credit Facility and will be receiving more than 5% of the net offering proceeds in connection with the repayment of outstanding loans under our Existing Credit Facility, Wells Fargo Securities, LLC, an underwriter in this offering, is deemed to have a "conflict of interest" with us under Rule 5121 of the Financial Industry Regulatory Authority, Inc. Wells Fargo Securities, LLC will not confirm sales of the shares of common stock to any account over which it exercises discretionary authority without the prior written approval of the customer.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment. Such investments and securities activities may involve securities and/or instruments of the issuer. Certain of the underwriters or their affiliates that have a lending relationship with us routinely hedge their credit exposure to us consistent with their customary risk management policies. Typically, such underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Sales Outside the United States

No action has been or will be taken in any jurisdiction (except in the United States) that would permit a public offering of the shares of common stock, or the possession, circulation or distribution of this prospectus or any other material relating to us or the shares of common stock in any jurisdiction where action for that purpose is required. Accordingly, the shares of common stock may not be offered

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or sold, directly or indirectly, and neither of this prospectus nor any other offering material or advertisements in connection with the shares of common stock may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of any such country or jurisdiction.

Each of the underwriters may arrange to sell shares of common stock offered by this prospectus in certain jurisdictions outside the United States, either directly or through affiliates, where they are permitted to do so. In that regard, Wells Fargo Securities, LLC may arrange to sell shares in certain jurisdictions through an affiliate, Wells Fargo Securities International Limited, or WFSIL. WFSIL is a wholly-owned indirect subsidiary of Wells Fargo & Company and an affiliate of Wells Fargo Securities, LLC. WFSIL is a U.K. incorporated investment firm regulated by the Financial Services Authority. Wells Fargo Securities is the trade name for certain corporate and investment banking services of Wells Fargo & Company and its affiliates, including Wells Fargo Securities, LLC and WFSIL. Credit Suisse Securities (USA) LLC may arrange to sell shares in certain jurisdictions other than the United States of America through an affiliate, Credit Suisse Securities (Europe) Limited.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

(d) provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the "FSMA") received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

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MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following discussion is a general summary of the material U.S. federal income tax consequences applicable to Non-U.S. Holders (as defined below) of the purchase, ownership and disposition of shares of our common stock as of the date hereof.

For purposes of this discussion, a "Non-U.S. Holder" of common stock means a beneficial owner that, for U.S. federal income tax purposes, is not a U.S. person. The term U.S. person means:

- an individual citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States or any State thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

This summary does not consider specific facts and circumstances that may be relevant to a particular Non-U.S. Holder's tax position and does not consider the state, local or non-U.S., or estate or gift (except as specifically addressed below) tax consequences of an investment in common stock. It also does not consider Non-U.S. Holders subject to special tax treatment under U.S. federal income tax laws (including partnerships or other pass-through entities, banks and insurance companies, dealers in securities, holders of our common stock held as part of a "straddle," "hedge," "conversion transaction" or other risk-reduction transaction, controlled foreign corporations, passive foreign investment companies, foreign tax-exempt organizations, "expatriated entities," companies subject to the "stapled stock" rules, former U.S. citizens or residents and persons who hold or receive the shares of common stock as compensation). This summary is based on provisions of the U.S. Internal Revenue Code of 1986, as amended, or the "Code," applicable U.S. Treasury regulations, administrative pronouncements of the U.S. Internal Revenue Service, or "IRS," and judicial decisions, all as in effect on the date hereof, and all of which are subject to change, possibly on a retroactive basis, and to different interpretations.

This summary is included herein as general information only. We urge each prospective Non-U.S. Holder to consult its own tax advisor concerning the particular U.S. federal, state, local and non-U.S. income, estate, gift and other tax consequences of the purchase, ownership and disposition of our common stock.

U.S. Trade or Business Income

For purposes of this discussion, dividend income, and gain on the sale or other taxable disposition of our shares will be considered to be "U.S. trade or business income" if such dividend income or gain is (1) effectively connected with the conduct by a Non-U.S. Holder of a trade or business within the United States; and (2) in the case of a Non-U.S. Holder that is eligible for the benefits of an applicable income tax treaty with the United States, attributable to a "permanent establishment" or "fixed base" maintained by the Non-U.S. Holder in the United States. Generally, U.S. trade or business income is not subject to U.S. federal withholding tax (provided the Non-U.S. Holder complies with applicable certification and disclosure requirements); instead, U.S. trade or business income is subject to U.S. federal income tax on a net income basis at regular U.S. federal income tax rates in the same manner as if the recipient were a U.S. person. Any U.S. trade or business income received by a Non-U.S.

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Holder that is treated as a corporation also may be subject to a "branch profits tax" at a 30% rate, or such lower rate as provided under an applicable income tax treaty.

Dividends

Distributions of cash or property (other than certain stock distributions) that we pay with respect to our common stock (or certain redemptions that are treated as distributions with respect to shares of our common stock) will be taxable as dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits as determined for U.S. federal income tax purposes. Subject to the discussion in "Foreign Account Tax Compliance Act" below, a Non-U.S. Holder generally will be subject to withholding of U.S. federal income tax at a rate of 30% of the gross amount of our distributions treated as dividends or such lower rate as may be specified by an applicable income tax treaty. In order to obtain a reduced rate of U.S. federal withholding tax under an applicable income tax treaty, a Non-U.S. Holder must provide a properly executed IRS Form W-8BEN (or appropriate substitute or successor form) certifying its entitlement to benefits under the treaty. A Non-U.S. Holder of our common stock that is eligible for a reduced rate of U.S. federal withholding tax under an applicable income tax treaty may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for refund with the IRS. A Non-U.S. Holder is encouraged to consult its own tax advisor regarding its possible entitlement to benefits under an applicable income tax treaty. If the amount of a distribution exceeds our current and accumulated earnings and profits, such excess first will be treated as a tax-free return of capital to the extent of the Non-U.S. Holder's adjusted tax basis in our shares, and thereafter will be treated as capital gain. A Non-U.S. Holder's adjusted tax basis in our shares will generally be equal to the amount the Non-U.S. Holder paid for its shares, reduced by the amount of any distributions treated as a return of capital. See, "Sale, Exchange or Other Disposition of Common Stock" below.

The U.S. federal withholding tax does not apply to dividends that are U.S. trade or business income, as described above, of a Non-U.S. Holder who provides a properly executed IRS Form W-8ECI (or appropriate substitute or successor form), certifying that the dividends are subject to tax as income effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States.

Sale, Exchange or Other Disposition of Common Stock

Subject to the discussion in "Foreign Account Tax Compliance Act" below, a Non-U.S. Holder generally will not be subject to U.S. federal income tax or withholding tax in respect of any gain recognized on a sale, exchange or other disposition of shares of our common stock unless:

- the gain is U.S. trade or business income, as described above;
- the Non-U.S. Holder is present in the United States for 183 or more days in the taxable year of the sale or other disposition but is not treated as a resident of the United States for that year, and certain other conditions are met; or
- we are or have been during a specified testing period a "United States real property holding corporation" for U.S. federal income tax purposes, as defined below.

Gain described in the first bullet above will be subject to U.S. federal income tax in the manner described under "U.S. Trade or Business Income." Gain described in the second bullet above will be subject to a flat 30% tax (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses (even though the Non-U.S. Holder is not considered a resident of the United States), provided that the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

In general, a corporation is a "United States real property holding corporation" if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of

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its worldwide (domestic and foreign) real property interests and its other assets used or held for use in a trade or business, or "Total Assets." For this purpose, real property interests generally include land, improvements and associated personal property. We intend to take the position that US Ecology has not been and is not a "United States real property holding corporation" for U.S. federal income tax purposes. Moreover, we do not anticipate that US Ecology will become a "United States real property holding corporation" in the future, although there can be no assurance that this will be the case. If US Ecology is or becomes a "United States real property holding corporation," a Non-U.S. Holder will not be subject to U.S. federal income or withholding tax in respect of any gain on a sale or other disposition of our common stock so long as shares of our common stock are "regularly traded on an established securities market" as defined under applicable Treasury regulations during the calendar year in which the sale or other disposition occurs and the relevant Non-U.S. Holder owns, actually and constructively, 5% or less of our shares at all times during the shorter of the five-year period ending on the date of the sale or other disposition and such Non-U.S. Holder's holding period for our shares. Prospective investors should be aware that no assurance can be given that shares of our common stock will be so regularly traded during the year in which a Non-U.S. Holder sells such shares. Moreover, any Non-U.S. Holder that owns, actually or constructive, more than 5% of our shares is urged to consult its own tax advisor regarding whether any gain on a sale or other disposition of our shares would be subject to U.S. federal income tax as a result of 50% or more of the fair market value of US Ecology's Total Assets being classified by the IRS as "U.S. real property interests."

U.S. Federal Estate Tax

Individual Non-U.S. Holders and entities, the property of which is potentially includible in an individual's gross estate for U.S. federal estate tax purposes (for example, a trust funded by an individual and with respect to which the individual has retained certain interests or powers), should note that, unless an applicable tax treaty provides otherwise, shares of our common stock will be treated as U.S. situs property subject to U.S. federal estate tax.

Information Reporting and Backup Withholding

Information returns will be filed with the IRS in connection with payments of dividends. Copies of these information returns also may be made available under the provisions of a specific treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides. Under certain circumstances, the Code imposes a backup withholding obligation on certain reportable payments. Dividends paid to a Non-U.S. Holder generally will be exempt from backup withholding if the Non-U.S. Holder provides a properly executed IRS Form W-8BEN (or appropriate substitute or successor form) or otherwise establishes an exemption.

The payment of the proceeds from the disposition of our common stock to or though the U.S. office of any broker, U.S. or foreign, will be subject to information reporting and possible backup withholding unless the owner certifies (usually on IRS Form W-8BEN) as to its non-U.S. status under penalties of perjury or otherwise establishes an exemption, provided that the broker does not have actual knowledge or reason to know that the holder is a U.S. person or that the conditions of any other exemption are not satisfied. The payment of the proceeds from the disposition of our common stock to or through a non-U.S. office of a non-U.S. broker will not be subject to information reporting or backup withholding unless the non-U.S. broker has certain types of relationships with the United States (which we refer to as a United States related person). In the case of the payment of the proceeds from the disposition of our common stock to or through a non-U.S. office of a broker that is either a U.S. person or a United States related person, the U.S. Treasury regulations require information reporting (but not backup withholding) on the payment unless the broker has documentary evidence in its files that the owner is a Non-U.S. Holder and the broker has no knowledge to the contrary. Non-U.S. Holders should consult their own tax advisors on the application of information reporting and backup

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withholding to them in their particular circumstances (including upon their disposition of our common stock).

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder will be credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, with any excess withholding refunded to the Non-U.S. Holder, provided that the required information is furnished to the IRS.

Foreign Account Tax Compliance Act ("FATCA")

Withholding taxes may apply to certain types of payments made to "foreign financial institutions" (as defined in the Code) and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on distributions and gross proceeds from the sale, exchange or other disposition of our common stock paid to a "foreign financial institution" or to a "non-financial foreign entity" (each as defined in the Code) unless (1) the foreign financial institution undertakes certain diligence and reporting, (2) the non-financial foreign entity either certifies it does not have any "substantial U.S. owners" (as defined in the Code) or furnishes identifying information regarding each substantial U.S. owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in clause (1) above, it must enter into an agreement with the IRS requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities (as defined in applicable U.S. Treasury regulations), annually report certain information about such accounts, and withhold 30% on payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

The withholding provisions above will generally apply to payments of dividends made on or after July 1, 2014 and to payments of gross proceeds from the sale or disposition of stock on or after January 1, 2017. Non-U.S. Holders are urged to consult their tax advisors regarding the possible implications of this legislation on their investment in our common stock.

VALIDITY OF SECURITIES

The validity of the securities we are offering will be passed upon by Dechert LLP, Philadelphia, Pennsylvania. Davis Polk & Wardwell LLP, New York, New York, is counsel for the underwriters.

EXPERTS

The consolidated financial statements incorporated in this Prospectus by reference from US Ecology, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2012 and the effectiveness of US Ecology Inc.'s internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference and which (1) expresses an unqualified opinion on the consolidated financial statements and includes an emphasis of a matter paragraph referring to a change in method of presenting comprehensive income in 2012 and (2) expresses an unqualified opinion on the effectiveness of internal control over financial reporting. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

With respect to the unaudited interim financial information for the periods ended March 31, 2013 and 2012, June 30, 2013 and 2012, and September 30, 2013 and 2012, which is incorporated herein by reference, Deloitte & Touche LLP has applied limited procedures in accordance with the standards of the Public Company Accounting Oversight Board (United States) for a review of such information. However, as stated in their reports included in the Company's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2013, June 30, 2013, and September 30, 2013 and incorporated by reference herein, they did not audit and they do not express an opinion on that interim financial information. Accordingly, the degree of reliance on their reports on such information should be restricted in light of the limited nature of the review procedures applied. Deloitte & Touche LLP are not subject to the liability provisions of Section 11 of the Securities Act for their reports on the unaudited interim financial information because those reports are not "reports" or a "part" of the Registration Statement prepared or certified by an accountant within the meaning of Sections 7 and 11 of the Act.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy and information statements and other information with the Securities and Exchange Commission. Copies of these materials may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. The SEC maintains a website that contains reports, proxy statements and other information regarding us. The address of the SEC website is http://www.sec.gov. We maintain a website at www.usecology.com. Information contained on our website is not incorporated into this prospectus and you should not consider information contained on our website to be part of this prospectus or any prospectus supplement.

The SEC allows us to "incorporate by reference" into this prospectus supplement the information contained in documents that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and accompanying prospectus, and the information that we file later with the SEC will automatically update and supersede prior information. Any information so updated and superseded shall not be deemed, except as so updated and superseded, to constitute a part of this prospectus supplement and accompanying prospectus. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the termination of the offering. Notwithstanding the foregoing, unless specifically stated to the contrary, none of the information that is not deemed "filed" with the SEC, including information furnished under Items 2.02 or 7.01 of any Current Report on Form 8-K, will be incorporated by reference into, or otherwise included in, this prospectus supplement and accompanying prospectus:

1. our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed with the SEC on March 1, 2013;

2. our Quarterly Reports on Form 10-Q filed with the SEC on April 30, 2013, August 1, 2013 and October 31, 2013 and on Form 10-Q/A filed on May 1, 2013; and

3. our Current Reports on Form 8-K filed with the SEC on February 5, 2013, March 5, 2013, May 30, 2013, June 3, 2013, September 9, 2013, November 1, 2013, December 2, 2013 and December 2, 2013.

We make available, free of charge through our website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. You may also obtain, free of charge, a copy of any of these documents (other than exhibits to these documents unless the exhibits are specifically incorporated by reference into these documents or referred to in this prospectus supplement) by writing or calling us at the following address and telephone number:

US Ecology, Inc.
251 E. Front St.
Suite 400
Boise, ID 83702
Attention: Corporate Secretary
(208) 331-8400

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PROSPECTUS

$500,000,000

US ECOLOGY, INC.

Common Stock
Preferred Stock
Warrants
Debt Securities
Rights to Purchase Common Stock, Preferred Stock, Debt Securities or Units
Units

We may offer and sell from time to time our shares of common stock, shares of preferred stock, warrants, debt securities and rights to purchase common stock, preferred stock, debt securities or units, as well as units that include any of these securities. We may sell any combination of these securities in one or more offerings with an aggregate initial offering price of up to $500,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities pursuant to this prospectus, we will provide a prospectus supplement containing specific terms of the particular offering together with this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. The prospectus supplement also may add, update or change information contained in this prospectus. This prospectus may not be used to offer and sell securities unless accompanied by the applicable prospectus supplement.

Our common stock is listed on the NASDAQ Global Market under the symbol "ECOL." On April 26, 2013, the closing price of our common stock was $26.36.

Investing in our securities involves significant risks. We strongly recommend that you read carefully the risks we describe in this prospectus and in any accompanying prospectus supplement, as well as the risk factors that are incorporated by reference into this prospectus from our filings made with the Securities and Exchange Commission. See "Risk Factors" on page 3 of this prospectus.

We may sell the securities directly or to or through underwriters or dealers, and also to other purchasers or through agents. The names of any underwriters or agents that are included in a sale of securities to you, and any applicable commissions or discounts, will be stated in an accompanying prospectus supplement. In addition, the underwriters, if any, may over-allot a portion of the securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 30, 2013

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, (the "SEC"), using a "shelf" registration process. Under this shelf registration process, we may offer and sell from time to time any combination of the securities described in this prospectus in one or more offerings in amounts, at prices and on terms that we determine at the time of the offering, with an aggregate initial offering price of up to $500,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities under this registration statement we will provide a prospectus supplement that describes the terms of the relevant offering. The prospectus supplement also may add, update or change information contained in this prospectus. Before making an investment decision, you should read carefully both this prospectus and any prospectus supplement together with the documents incorporated by reference into this prospectus as described below under the heading "Information Incorporated by Reference."

The registration statement that contains this prospectus, including the exhibits to the registration statement and the information incorporated by reference, provides additional information about us and our securities. That registration statement can be read at the SEC website (www.sec.gov) or at the SEC public reference room, as discussed below under the heading "Where You Can Find More Information."

You should rely only on the information provided in the registration statement, this prospectus and in any prospectus supplement, including the information incorporated by reference. We have not authorized anyone to provide you with different information. You should not assume that the information in this prospectus or any supplement to this prospectus is accurate at any date other than the date indicated on the cover page of these documents or the filing date of any document incorporated by reference, regardless of its time of delivery. We are not making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted.

We may sell our securities to or through underwriters, initial purchasers, dealers or agents, directly to purchasers or through a combination of any of these methods of sale, as designated from time to time. We and our agents reserve the sole right to accept or reject in whole or in part any proposed purchase of our securities. An applicable prospectus supplement, which we will provide each time we offer the securities, will set forth the names of any underwriters, initial purchasers, dealers or agents involved in the sale of our securities, and any related fee, commission or discount arrangements. See "Plan of Distribution."

The terms "US Ecology, Inc.," "US Ecology," the "Company," "our," "us" and "we," as used in this prospectus, refer to US Ecology, Inc. and its wholly-owned subsidiaries, unless we state otherwise or the context indicates otherwise.

US ECOLOGY, INC.

US Ecology, through our subsidiaries, provides radioactive, hazardous, PCB and non-hazardous industrial waste management and recycling services to commercial and government entities, such as refineries and chemical production facilities, manufacturers, electric utilities, steel mills, medical and academic institutions and waste brokers/aggregators. Headquartered in Boise, Idaho, we are one of the oldest providers of such services in North America. US Ecology and its predecessor companies have been in business for over 60 years. We operate within North America and employed 428 people as of February 25, 2013.

Our filings with the SEC are posted on our website at www.usecology.com. The information found on our website is not part of this or any other report we file with or furnish to the SEC. The public can also obtain copies of these filings by visiting the SEC's Public Reference Room at 100 F Street NE,

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Washington DC 20549, or by calling the SEC at 1-800-SEC-0330 or by accessing the SEC's website at www.sec.gov.

US Ecology was most recently incorporated as a Delaware corporation in May 1987 as American Ecology Corporation. Our principal executive offices are located at 300 E. Mallard Dr., Suite 300, Boise, ID 83706 and our telephone number is (208) 331-8400. More information about us is available through our website at www.usecology.com. The information on our website is not incorporated by reference into this prospectus or any accompanying prospectus supplement. On February 22, 2010, the Company changed its name from American Ecology Corporation to US Ecology, Inc. Our wholly-owned primary operating subsidiaries are US Ecology Nevada, Inc., a Delaware corporation ("USEN"); US Ecology Washington, Inc., a Delaware corporation ("USEW"); US Ecology Texas, Inc., a Delaware corporation ("USET"); US Ecology Idaho, Inc., a Delaware corporation ("USEI"); US Ecology Michigan, Inc., a Michigan corporation ("USEM"); US Ecology Field Services, Inc., a Delaware corporation ("USEFS"), US Ecology Stablex Holdings, Inc., a Delaware corporation ("USESH"); and Stablex Canada Inc., a Canadian Federal Corporation ("Stablex"). US Ecology Illinois, Inc., a California corporation ("USE"), operates our closed property in Sheffield, Illinois. American Ecology Environmental Services Corporation, a Texas corporation ("AEESC"), operates our closed property in Winona, Texas.

FORWARD-LOOKING STATEMENTS

This registration statement on Form S-3 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 Company services, expansion of service offerings geographically or through new or expanded service lines, the timing and cost of planned capital expenditures, competitive conditions and general economic conditions. These assumptions could prove inaccurate. Forward-looking statements also involve known and unknown risks and uncertainties, which could cause actual results to differ materially from those contained in any forward-looking statement. Many of these factors are beyond our ability to control or predict. Such factors include the replacement of non-recurring event clean-up projects, a loss of a major customer, our ability to permit and contract for timely construction of new or expanded disposal cells, our ability to renew our operating permits or lease agreements with regulatory bodies, loss of key personnel, compliance with and changes to applicable laws, rules, or regulations, fluctuations in foreign currency markets, access to insurance, surety bonds and other financial assurances, a deterioration in our labor relations or labor disputes, our ability to perform under required contracts, failure to realize anticipated benefits and operational performance from acquired operations, adverse economic conditions, government funding or competitive pressures, incidents or adverse weather conditions that could limit or suspend specific operations, access to cost effective transportation services, lawsuits, market conditions, our willingness or ability to pay dividends, implementation of new technologies and our ability to effectively close and integrate future acquisitions.

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Except as required by applicable law, including the securities laws of the United States and the rules and regulations of 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" included in our Annual Report on Form 10-K for the year ended December 31, 2012, and in subsequent filings, which are incorporated by reference into this prospectus, 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.

RISK FACTORS

Investing in our securities involves risk. You should carefully consider the specific risks discussed or incorporated by reference into the applicable prospectus supplement, together with all the other information contained in the prospectus supplement or incorporated by reference into this prospectus and the applicable prospectus supplement. You should also consider the risks, uncertainties and assumptions discussed under the caption "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2012 and in subsequent filings, which are incorporated by reference into this prospectus. These risk factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future or by a prospectus supplement relating to a particular offering of our securities. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of your investment.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth the computation of our ratio of earnings to fixed charges for the periods indicated below (in thousands):

	Years ended December 31,				
	2012	**2011**	**2010**	**2009**	**2008**
Ratio of Earnings to Fixed Charges	47.3	19.2	61.2	225.1	228.2

Fixed charges consist of interest expense (including amortization of deferred financing costs), and the interest component of rental expense, as estimated by management.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we will use the net proceeds from the sale of the securities offered hereby for general corporate purposes, which include but are not

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limited to provide financing for acquisitions, capital expenditures, additions to working capital and reduction or refinancing of outstanding indebtedness or other corporate obligations.

PLAN OF DISTRIBUTION

We may sell the securities offered by this prospectus in any one or more of the following ways from time to time:

- to or through one or more underwriters, initial purchasers, brokers or dealers;
- through agents to investors or the public;
- in short or long transactions;
- through put or call option transactions relating to our common stock;
- directly to agents or other purchasers;
- in "at the market offerings" within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange or otherwise;
- though a combination of any such methods of sale; or
- through any other method described in the applicable prospectus supplement.

The applicable prospectus supplement will set forth the terms of the offering and the method of distribution and will identify any firms acting as underwriters, initial purchasers, dealers or agents in connection with the offering, including:

- the terms of the offering;
- the names of any underwriters, dealers or agents;
- the name or names of any managing underwriter or underwriters;
- the purchase price of the securities and the proceeds to us from the sale;
- any over-allotment options under which the underwriters may purchase additional shares of common stock from us;
- any underwriting discounts, concessions, commissions or agency fees and other items constituting compensation to underwriters, dealers or agents;

any delayed delivery arrangements;

any public offering price;

any discounts or concessions allowed or re-allowed or paid by underwriters or dealers to other dealers; or

any securities exchange or market on which the common stock offered in the prospectus supplement may be listed.

If we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account for resale to the public, either on a firm commitment basis or a best efforts basis. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Underwriters may offer the securities to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more firms acting as underwriters. If an underwriter or underwriters are used in the sale of securities hereunder, an underwriting agreement will be executed with the underwriter or underwriters at the time an agreement for sale is reached. Unless we inform

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you otherwise in the applicable prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions. We may change from time to time any public offering price and any discounts or concessions the underwriters allow or pay to dealers.

During and after an offering through underwriters, the underwriters may purchase and sell the securities in the open market. These transactions may include overallotment and stabilizing transactions and purchases to cover syndicate short positions created in connection with the offering. The underwriters may also impose a penalty bid, which means that selling concessions allowed to syndicate members or other broker-dealers for the offered securities sold for their account may be reclaimed by the syndicate if the offered securities are repurchased by the syndicate in stabilizing or covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the offered securities, which may be higher than the price that might otherwise prevail in the open market. If commenced, the underwriters may discontinue these activities at any time.

Some or all of the securities that we offer though this prospectus may be new issues of securities with no established trading market. Any underwriters to whom we sell our securities for public offering and sale may make a market in those securities, but they will not be obligated to do so and they may discontinue any market making at any time without notice. Accordingly, we cannot assure you of the liquidity of, or continued trading markets for, any securities that we offer.

If dealers are used for the sale of securities, we, or an underwriter, will sell the securities to them as principals. The dealers may then resell those securities to the public at varying prices determined by the dealers at the time of resale. We will include in the applicable prospectus supplement the names of the dealers and the terms of the transaction.

We may also sell the securities through agents designated from time to time. In the applicable prospectus supplement, we will name any agent involved in the offer or sale of the offered securities, and we will describe any commissions payable to the agent. Unless we inform you otherwise in the applicable prospectus supplement, any agent will agree to use its reasonable best efforts to solicit purchases for the period of its appointment.

We may sell the securities directly in transactions not involving underwriters, dealers or agents.

We may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any sale of those securities. We will describe the terms of any such sales in the prospectus supplement.

Underwriters, dealers and agents that participate in the distribution of the securities may be underwriters as defined in the applicable securities laws and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the applicable securities laws. We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the applicable securities laws.

Underwriters, dealers and agents may engage in transactions with or perform services for us in the ordinary course of their businesses for which they may receive customary fees and reimbursement of expenses.

We may use underwriters with whom we have a material relationship. We will describe the nature of such relationship in the applicable prospectus supplement.

Under the securities laws of some states, the securities offered by this prospectus may be sold in those states only through registered or licensed brokers or dealers.

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We may enter into hedging transactions with broker-dealers and the broker-dealers may engage in short sales of the securities in the course of hedging the positions they assume with us, including, without limitation, in connection with distributions of the securities by those broker-dealers. We may enter into option or other transactions with broker-dealers that involve the delivery of the securities offered hereby to the broker-dealers, who may then resell or otherwise transfer those securities. We may also loan or pledge the securities offered hereby to a broker-dealer and the broker-dealer may sell the securities offered hereby so loaned or upon a default may sell or otherwise transfer the pledged securities offered hereby.

DESCRIPTION OF CAPITAL STOCK

The following description is a general summary of the terms of the shares of common stock or shares of preferred stock that we may issue. The description below and in any prospectus supplement does not include all of the terms of the shares of common stock or shares of preferred stock and should be read together with our Restated Certificate of Incorporation and Amended and Restated Bylaws, copies of which have been filed previously with the SEC. For more information on how you can obtain copies of our Restated Certificate of Incorporation and Amended and Restated Bylaws, see "Where You Can Find More Information."

Common Stock

General

Our Restated Certificate of Incorporation, as amended, provides the authority to issue 50,000,000 shares of common stock, par value $0.01 per share. At April 26 , 2013, there were 18,410,349 shares of common stock outstanding. 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 holders of our 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. Our Restated Certificate of Incorporation, as amended, provides for cumulative voting in connection with the election of directors.

Dividends

The holders of our common stock are entitled to dividends, if any, as our Board of Directors may declare from time to time from funds legally available for that purpose, subject to the holders of other classes of stock, if any, at the time outstanding having prior rights as to dividends, if any.

Liquidation Rights

Upon any voluntary or involuntary liquidation, dissolution, or winding up of our affairs, the holders of our common stock are entitled to share ratably in all assets remaining after the payment of creditors, subject to any prior liquidation distribution rights of holders of other classes of stock, if any, at the time outstanding.

Miscellaneous

Holders of our common stock have no preemptive, conversion, redemption or sinking fund rights. The outstanding shares of our common stock are, and the shares of common stock to be offered hereby when issued will be, validly issued, fully paid and non-assessable.

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NASDAQ Listing

Our common stock is listed on the NASDAQ Global Market under the symbol "ECOL."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer and Trust Co. and its address and telephone number are 59 Maiden Lane Plaza Level, New York, NY 10038 and (800) 937-5449, respectively.

Preferred Stock

General

Our Restated Certificate of Incorporation, as amended, authorizes the issuance of up to 1,000,000 shares of preferred stock, par value $0.01 per share, none of which are issued and outstanding as of the date of this prospectus. We may issue, from time to time in one or more series, the terms of which may be determined at the time of issuance by our board of directors, without further action by our stockholders, shares of preferred stock and such shares may include voting rights, preferences as to dividends and liquidation, conversion rights, redemption rights and sinking fund provisions. The shares of each series of preferred stock shall have preferences, limitations and relative rights, including voting rights, identical with those of other shares of the same series and, except to the extent provided in the description of such series, of those of other series of preferred stock.

The issuance of any preferred stock could adversely affect the rights of the holders of common stock and, therefore, reduce the value of the common stock. The ability of our board of directors to issue preferred stock could discourage, delay or prevent a takeover or change in control.

The description of the terms of a particular series of preferred stock in the applicable prospectus supplement will not be complete. You should refer to the applicable certificate of designation for complete information regarding a series of preferred stock. The prospectus supplement will also contain a description of U.S. federal income tax consequences relating to the preferred stock, if material.

The terms of any particular series of preferred stock will be described in the prospectus supplement relating to that particular series of preferred stock, including, where applicable:

- the series designation, stated value and liquidation preference of such preferred stock and the number of shares offered;
- the offering price;
- the dividend rate or rates (or method of calculation), the date or dates from which dividends shall accrue, and whether such dividends shall be cumulative or noncumulative and, if cumulative, the dates from which dividends shall commence to cumulate;
- any redemption or sinking fund provisions;
- the amount that shares of such series shall be entitled to receive in the event of our liquidation, dissolution or winding-up;
- the terms and conditions, if any, on which shares of such series shall be convertible or exchangeable for shares of our stock of any other class or classes, or other series of the same class;
- the voting rights, if any, of shares of such series in addition to those set forth under the caption entitled, "Voting Rights" below;

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the status as to reissuance or sale of shares of such series redeemed, purchased or otherwise reacquired, or surrendered to us on conversion or exchange;

the conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption or other acquisition by us, of our common stock or of any other class of our stock ranking junior to the shares of such series as to dividends or upon liquidation (including, but not limited to, at such times as there are arrearages in the payment of dividends or sinking fund installments);

the conditions and restrictions, if any, on the creation of Company indebtedness, or on the issue of any additional stock ranking on a parity with or prior to the shares of such series as to dividends or upon liquidation; and

any additional dividend, liquidation, redemption, sinking or retirement fund and other rights, preferences, privileges, limitations and restrictions of such preferred stock.

If we issue shares of preferred stock under this prospectus and any related prospectus supplement, the shares will be fully paid and non-assessable and will not have, or be subject to, any preemptive or similar rights.

Voting Rights

The General Corporation Law of Delaware provides that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes in the rights of holders of that preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Transfer Agent and Registrar

The transfer agent and registrar for any series of preferred stock will be set forth in the applicable prospectus supplement.

Other

Our issuance of preferred stock could decrease the amount of earnings and assets available for distribution to the holders of common stock or could adversely affect the rights and powers, including voting rights, of the holders of common stock. The issuance of preferred stock could have the effect of decreasing the market price of our common stock.

Delaware Law and Certain Restated Certificate of Incorporation and Amended and Restated Bylaws Provisions

The provisions of Delaware law and of our Restated Certificate of Incorporation, as amended, and Amended and Restated 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 and our Restated Certificate of Incorporation, as amended, and our Amended and Restated Bylaws.

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination"

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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 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 Restated Certificate of Incorporation, as amended, and Amended and Restated 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 and Restated Bylaws authorize our Board of Directors to elect additional directors under specified circumstances and fill any vacancies that occur in our Board of Directors by reason of death, resignation, removal, or otherwise. A director so elected by our Board of Directors 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 and Restated 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 US Ecology, Inc.

Indemnification

We have included in our Restated Certificate of Incorporation, as amended, and Amended and Restated 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 Delaware General Corporation Law, and to indemnify our directors and officers to the fullest extent permitted by Section 145 of the Delaware General Corporation Law, 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.

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DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of shares of our common stock, shares of our preferred stock or debt securities. The following description sets forth certain general terms and provisions of the warrants that we may offer pursuant to this prospectus. The particular terms of the warrants and the extent, if any, to which the general terms and provisions may apply to the warrants so offered will be described in the applicable prospectus supplement.

Warrants may be issued independently or together with other securities and may be attached to or separate from any offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The warrant agent will act solely as our agent in connection with the warrants and will not have any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants.

A copy of the forms of the warrant agreement and the warrant certificate relating to any particular issue of warrants will be filed with the SEC each time we issue warrants, and you should read those documents for provisions that may be important to you. For more information on how you can obtain copies of the forms of the warrant agreement and the related warrant certificate, see "Where You Can Find More Information."

Stock Warrants

The prospectus supplement relating to a particular issue of warrants to issue shares of our common stock or shares of our preferred stock will describe the terms of the common share warrants and preferred share warrants, including the following:

- the title of the warrants;
- the offering price for the warrants, if any;
- the aggregate number of the warrants;
- the designation and terms of the shares of common stock or shares of preferred stock that may be purchased upon exercise of the warrants;
- the terms for changes or adjustments to the exercise price of the warrants;
- if applicable, the designation and terms of the securities that the warrants are issued with and the number of warrants issued with each security;
- if applicable, the date from and after which the warrants and any securities issued with the warrants will be separately transferable;
- the number of shares of common stock or shares of preferred stock that may be purchased upon exercise of a warrant and the price at which the shares may be purchased upon exercise;
- the dates on which the right to exercise the warrants commence and expire;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

if applicable, a discussion of material United States federal income tax considerations;

anti-dilution provisions of the warrants, if any;

redemption or call provisions, if any, applicable to the warrants;

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any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants; and

any other information we think is important about the warrants.

Debt Warrants

The prospectus supplement relating to a particular issue of warrants to issue debt securities will describe the terms of those warrants, including the following:

the title of the warrants;

the offering price for the warrants, if any;

the aggregate number of the warrants;

the designation and terms of the debt securities purchasable upon exercise of the warrants;

the terms for changes or adjustments to the exercise price of the warrants;

if applicable, the designation and terms of the debt securities that the warrants are issued with and the number of warrants issued with each debt security;

if applicable, the date from and after which the warrants and any debt securities issued with them will be separately transferable;

the principal amount of debt securities that may be purchased upon exercise of a warrant and the price at which the debt securities may be purchased upon exercise;

the dates on which the right to exercise the warrants will commence and expire;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

whether the warrants represented by the warrant certificates or debt securities that may be issued upon exercise of the warrants will be issued in registered or bearer form;

information relating to book-entry procedures, if any;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

if applicable, a discussion of material United States federal income tax considerations;

anti-dilution provisions of the warrants, if any;

redemption or call provisions, if any, applicable to the warrants;

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants; and

any other information we think is important about the warrants.

Exercise of Warrants

Each warrant will entitle the holder of the warrant to purchase at the exercise price set forth in the applicable prospectus supplement the number of shares of common stock, shares of preferred stock or the principal amount of debt securities being offered. Holders may exercise warrants at any time up to the close of business on the expiration date set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants are void. Holders may exercise warrants as set forth in the prospectus supplement relating to the warrants being offered.

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Until a holder exercises the warrants to purchase our shares of common stock, shares of preferred stock or debt securities, the holder will not have any rights as a holder of our shares of common stock, shares of preferred stock or debt securities, as the case may be, by virtue of ownership of warrants.

DESCRIPTION OF DEBT SECURITIES

The following is a general description of the terms of debt securities we may issue from time to time unless we provide otherwise in the applicable prospectus supplement. Particular terms of any debt securities we offer will be described in the prospectus supplement relating to such debt securities.

As required by Federal law for all bonds and notes of companies that are publicly offered, any debt securities we issue will be governed by a document called an "indenture." An indenture is a contract between us and a financial institution acting as trustee on behalf of the holders of the debt securities, and is subject to and governed by the Trust Indenture Act of 1939, as amended. The trustee has two main roles. First, the trustee can enforce holders' rights against us if we default. There are some limitations on the extent to which the trustee acts on holders' behalf, described in the second paragraph under "Description of Debt Securities Events of Default." Second, the trustee performs certain administrative duties, such as sending interest and principal payments to holders.

Because this section is a summary, it does not describe every aspect of any debt securities we may issue or the indenture governing any such debt securities. Particular terms of any debt securities we offer will be described in the prospectus supplement relating to such debt securities, and we urge you to read the applicable indenture, which will be filed with the SEC at the time of any offering of debt securities, because it, and not this description, will define the rights of holders of such debt securities.

A prospectus supplement will describe the particular terms of any series of debt securities we may issue, including some or all of the following:

- the designation or title of the series of debt securities;
- the total principal amount of the series of debt securities, the denominations in which the offered debt securities will be issued and whether the offering may be reopened for additional securities of that series and on what terms;
- the percentage of the principal amount at which the series of debt securities will be offered;
- the date or dates on which principal will be payable;
- the rate or rates (which may be either fixed or variable) and/or the method of determining such rate or rates of interest, if any;
- the date or dates from which any interest will accrue, or the method of determining such date or dates, and the date or dates on which any interest will be payable;
- the terms for redemption, extension or early repayment, if any;
- the currencies in which the series of debt securities are issued and payable;
- whether the amount of payments of principal, interest or premium, if any, on a series of debt securities will be determined with reference to an index, formula or other method and how these amounts will be determined;

the place or places of payment, transfer, conversion and/or exchange of the debt securities;

the provision for any sinking fund;

any restrictive covenants;

events of default;

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whether the series of debt securities are issuable in certificated form;

any provisions for legal defeasance or covenant defeasance;

whether and under what circumstances we will pay additional amounts in respect of any tax, assessment or governmental charge and, if so, whether we will have the option to redeem the debt securities rather than pay the additional amounts (and the terms of this option);

any provisions for convertibility or exchangeability of the debt securities into or for any other securities;

whether the debt securities are subject to subordination and the terms of such subordination;

any listing of the debt securities on any securities exchange;

if applicable, a discussion of certain U.S. Federal income tax considerations, including those related to original issue discount, if applicable; and

any other material terms.

The debt securities may be secured or unsecured obligations. Unless the prospectus supplement states otherwise, principal, interest and premium, if any, will be paid by us in immediately available funds.

General

The indenture may provide that any debt securities proposed to be sold under this prospectus and the applicable prospectus supplement relating to such debt securities ("offered debt securities") and any debt securities issuable upon conversion or exchange of other offered securities ("underlying debt securities") may be issued under the indenture in one or more series.

For purposes of this prospectus, any reference to the payment of principal of, or interest or premium, if any, on, debt securities will include additional amounts if required by the terms of the debt securities.

Debt securities issued under an indenture, when a single trustee is acting for all debt securities issued under the indenture, are called the "indenture securities." The indenture may also provide that there may be more than one trustee thereunder, each with respect to one or more different series of securities issued thereunder. See "Description of Debt Securities Resignation of Trustee" below. At a time when two or more trustees are acting under an indenture, each with respect to only certain series, the term "indenture securities" means the one or more series of debt securities with respect to which each respective trustee is acting. In the event that there is more than one trustee under an indenture, the powers and trust obligations of each trustee described in this prospectus will extend only to the one or more series of indenture securities for which it is trustee. If two or more trustees are acting under an indenture, then the indenture securities for which each trustee is acting would be treated as if issued under separate indentures.

We refer you to the applicable prospectus supplement relating to any debt securities we may issue from time to time for information with respect to any deletions from, modifications of or additions to the Events of Default or covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection, that will be applicable with respect to such debt securities.

We have the ability to issue indenture securities with terms different from those of indenture securities previously issued and, without the consent of the holders thereof, to reopen a previous issue of a series of indenture securities and issue additional indenture securities of that series unless the reopening was restricted when that series was created.

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Conversion and Exchange

If any debt securities are convertible into or exchangeable for other securities, the related prospectus supplement will explain the terms and conditions of the conversion or exchange, including the conversion price or exchange ratio (or the calculation method), the conversion or exchange period (or how the period will be determined), if conversion or exchange will be mandatory or at the option of the holder or us, provisions for adjusting the conversion price or the exchange ratio and provisions affecting conversion or exchange in the event of the redemption of the underlying debt securities. These terms may also include provisions under which the number or amount of other securities to be received by the holders of the debt securities upon conversion or exchange would be calculated according to the market price of the other securities as of a time stated in the prospectus supplement.

Payment and Paying Agents

We will pay interest to the person listed in the applicable trustee's records as the owner of the debt security at the close of business on a particular day in advance of each due date for interest, even if that person no longer owns the debt security on the interest due date. That day, often approximately two weeks in advance of the interest due date, is called the "record date." Because we will pay all the interest for an interest period to the holders on the record date, holders buying and selling debt securities must work out between themselves the appropriate purchase price. The most common manner is to adjust the sales price of the debt securities to prorate interest fairly between buyer and seller based on their respective ownership periods within the particular interest period. This prorated interest amount is called "accrued interest."

Events of Default

Holders of debt securities of any series will have rights if an Event of Default occurs in respect of the debt securities of such series and is not cured, as described later in this subsection. The term "Event of Default" in respect of the debt securities of any series means any of the following:

- we do not pay the principal of, or any premium on, a debt security of the series on its due date;
- we do not pay interest on a debt security of the series within 30 days of its due date;
- we do not deposit any sinking fund payment in respect of debt securities of the series on its due date and we do not cure this default within five days;
- we remain in breach of a covenant in respect of debt securities of the series for 90 days after we receive a written notice of default stating we are in breach. The notice must be sent by either the trustee or holders of at least 25% of the principal amount of debt securities of the series;
- we file for bankruptcy or certain other events of bankruptcy, insolvency or reorganization occur; and
- any other Event of Default occurs in respect of debt securities of the series described in the prospectus supplement.

An Event of Default for a particular series of debt securities does not necessarily constitute an Event of Default for any other series of debt securities issued under the same or any other indenture. The trustee may withhold notice to the holders of debt securities of any default, except in the payment of principal, premium or interest, if it considers the withholding of notice to be in the best interests of the holders.

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Remedies if an Event of Default Occurs

If an Event of Default has occurred and has not been cured or waived, the trustee or the holders of not less than 25% in principal amount of the debt securities of the affected series may declare the entire principal amount of all the debt securities of that series to be due and immediately payable. This is called a declaration of acceleration of maturity. A declaration of acceleration of maturity may be canceled by the holders of a majority in principal amount of the debt securities of the affected series if the default is cured or waived and certain other conditions are satisfied.

Except in cases of default, where the trustee has some special duties, the trustee typically is not required to take any action under an indenture at the request of any holders unless the holders offer the trustee reasonable protection from expenses and liability (called an "indemnity"). If reasonable indemnity is provided, the holders of a majority in principal amount of the outstanding debt securities of the relevant series may direct the time, method and place of conducting any lawsuit or other formal legal action seeking any remedy available to the trustee. The trustee may refuse to follow those directions in certain circumstances.

Before a holder is allowed to bypass the trustee and bring its own lawsuit or other formal legal action or take other steps to enforce its rights or protect its interests relating to any debt securities, the following must occur:

- the holder must give the trustee written notice that an Event of Default has occurred and remains uncured;
- the holders of at least 25% in principal amount of all outstanding debt securities of the relevant series must make a written request that the trustee take action because of the default and must offer reasonable indemnity to the trustee against the cost and other liabilities of taking that action;
- the trustee must not have taken action for 60 days after receipt of the above notice and offer of indemnity; and
- the holders of a majority in principal amount of the debt securities must not have given the trustee a direction inconsistent with the above notice during that 60-day period.

However, a holder is entitled at any time to bring a lawsuit for the payment of money due on its debt securities on or after the due date. Each year, we will furnish to each trustee a written statement of certain of our officers certifying that to their knowledge we are in compliance with the indenture and the debt securities, or else specifying any default.

Waiver of Default

The holders of a majority in principal amount of the relevant series of debt securities may waive a default for all such series of debt securities. If this happens, the default will be treated as if it had not occurred. No one can waive a payment default on a holder's debt security, however, without the holder's approval.

Merger or Consolidation

Under the terms of an indenture, we may be permitted to consolidate or merge with another entity. We may also be permitted to sell all or substantially all of our assets to another entity. However, typically we may not take any of these actions unless all the following conditions are met:

- if we do not survive such transaction or we convey, transfer or lease our properties and assets substantially as an entirety, the acquiring company must be a corporation, limited liability company, partnership or trust, or other corporate form, organized under the laws of any state of

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the United States or the District of Columbia, and such company must agree to be legally responsible for our debt securities, and, if not already subject to the jurisdiction of any state of the United States or the District of Columbia, the new company must submit to such jurisdiction for all purposes with respect to the debt securities and appoint an agent for service of process;

alternatively, we must be the surviving company;

immediately after the transaction no Event of Default will exist;

we must deliver certain certificates and documents to the trustee; and

we must satisfy any other requirements specified in the prospectus supplement relating to a particular series of debt securities.

Modification or Waiver

There are three types of changes we may make to an indenture and the debt securities issued thereunder.

Changes Requiring Approval

First, there are changes that we cannot make to debt securities without specific approval of all of the holders. The following is a list of the types of changes that may require specific approval:

change the stated maturity of the principal of or rate of interest on a debt security;

reduce any amounts due on a debt security;

reduce the amount of principal payable upon acceleration of the maturity of a security following a default;

at any time after a change of control has occurred, reduce any premium payable upon a change of control;

change the place or currency of payment on a debt security (except as otherwise described in the prospectus or prospectus supplement);

impair the right of holders to sue for payment;

adversely affect any right to convert or exchange a debt security in accordance with its terms;

reduce the percentage of holders of debt securities whose consent is needed to modify or amend the indenture;

reduce the percentage of holders of debt securities whose consent is needed to waive compliance with certain provisions of the indenture or to waive certain defaults;

modify any other aspect of the provisions of the indenture dealing with supplemental indentures, modification and waiver of past defaults, changes to the quorum or voting requirements or the waiver of certain covenants; and

change any obligation we have to pay additional amounts.

Changes Not Requiring Approval

The second type of change does not require any vote by the holders of the debt securities. This type is limited to clarifications and certain other changes that would not adversely affect holders of the outstanding debt securities in any material respect, including the addition of covenants and guarantees. We also do not need any approval to make any change that affects only debt securities to be issued under the indenture after the change takes effect.

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Changes Requiring Majority Approval

Any other change to the indenture and the debt securities may require the following approval:

- if the change affects only one series of debt securities, it must be approved by the holders of a majority in principal amount of that series; and

- if the change affects more than one series of debt securities issued under the same indenture, it must be approved by the holders of a majority in principal amount of all of the series affected by the change, with all affected series voting together as one class for this purpose.

The holders of a majority in principal amount of all of the series of debt securities issued under an indenture, voting together as one class for this purpose, may waive our compliance obligations with respect to some of our covenants in that indenture. However, we cannot obtain a waiver of a payment default or of any of the matters covered by the bullet points included above under "Description of Debt Securities Modification or Waiver Changes Requiring Approval."

Further Details Concerning Voting

When taking a vote on proposed changes to the indenture and the debt securities, we expect to use the following rules to decide how much principal to attribute to a debt security:

- for original issue discount securities, we will use the principal amount that would be due and payable on the voting date if the maturity of these debt securities were accelerated to that date because of a default;

- for debt securities whose principal amount is not known (for example, because it is based on an index), we will use a special rule for that debt security described in the related prospectus supplement; and

- for debt securities denominated in one or more foreign currencies, we will use the U.S. dollar equivalent.

Debt securities will not be considered outstanding, and therefore not eligible to vote, if we have deposited or set aside in trust money for their payment or redemption. Debt securities will also not be eligible to vote if they have been fully defeased as described later under "Description of Debt Securities Defeasance Legal Defeasance."

We generally will be entitled to set any day as a record date for the purpose of determining the holders of outstanding indenture securities that are entitled to vote or take other action under the indenture. If we set a record date for a vote or other action to be taken by holders of one or more series, that vote or action may be taken only by persons who are holders of outstanding indenture securities of those series on the record date and must be taken within 11 months following the record date.

Book-entry and other indirect holders will need to consult their banks or brokers for information on how approval may be granted or denied if we seek to change the indenture or the debt securities or request a waiver.

Defeasance

The following provisions will be applicable to each series of debt securities unless we state in the applicable prospectus supplement that the provisions of covenant defeasance and legal defeasance will not be applicable to that series.

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Covenant Defeasance

We can make the deposit described below and be released from some of the restrictive covenants in the indenture under which the particular series was issued. This is called "covenant defeasance." In that event, the holders would lose the protection of those restrictive covenants but would gain the protection of having money and government securities set aside in trust to repay holders' debt securities. If applicable, a holder also would be released from the subordination provisions described under "Description of Debt Securities Indenture Provisions Subordination" below. In order to achieve covenant defeasance, we must do the following:

If the debt securities of the particular series are denominated in U.S. dollars, we must deposit in trust for the benefit of all holders of such debt securities a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the debt securities on their various due dates;

We may be required to deliver to the trustee a legal opinion of our counsel confirming that, under current U.S. Federal income tax law, we may make the above deposit without causing the holders to be taxed on the debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves at maturity; and

We must deliver to the trustee certain documentation stating that all conditions precedent to covenant defeasance have been complied with.

If we accomplish covenant defeasance, holders can still look to us for repayment of the debt securities if there were a shortfall in the trust deposit or the trustee is prevented from making payment. In fact, if one of the remaining Events of Default occurred (such as our bankruptcy) and the debt securities became immediately due and payable, there might be a shortfall. Depending on the event causing the default, holders may not be able to obtain payment of the shortfall.

Legal Defeasance

As described below, we can legally release ourselves from all payment and other obligations on the debt securities of a particular series (called "legal defeasance"), (1) if there is a change in U.S. Federal tax law that allows us to effect the release without causing the holders to be taxed any differently than if the release had not occurred, and (2) if we put in place the following other arrangements for holders to be repaid:

If the debt securities of the particular series are denominated in U.S. dollars, we must deposit in trust for the benefit of all holders of such debt securities a combination of money and U.S. government or U.S. government agency notes or bonds that will generate enough cash to make interest, principal and any other payments on the debt securities on their various due dates;

We may be required to deliver to the trustee a legal opinion confirming that there has been a change in current U.S. Federal tax law or an Internal Revenue Service ruling that allows us to make the above deposit without causing the holders to be taxed on the debt securities any differently than if we did not make the deposit and just repaid the debt securities ourselves at maturity. Under current U.S. Federal tax law, the deposit and our legal release from the debt securities would be treated as though we paid each holder its share of the cash and notes or bonds at the time the cash and notes or bonds were deposited in trust in exchange for its debt securities and holders would recognize gain or loss on the debt securities at the time of the deposit; and

We must deliver to the trustee a legal opinion and officers' certificate stating that all conditions precedent to legal defeasance have been complied with.

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If we ever did accomplish legal defeasance, as described above, holders would have to rely solely on the trust deposit for repayment of the debt securities. Holders could not look to us for repayment in the unlikely event of any shortfall. Conversely, the trust deposit would most likely be protected from claims of our lenders and other creditors if we ever became bankrupt or insolvent. If applicable, holders would also be released from the subordination provisions described later under "Description of Debt Securities Indenture Provisions Subordination."

Resignation of Trustee

Each trustee may resign or be removed with respect to one or more series of indenture securities provided that a successor trustee is appointed to act with respect to such series. In the event that two or more persons are acting as trustee with respect to different series of indenture securities under the indenture, each of the trustees will be a trustee of a trust separate and apart from the trust administered by any other trustee.

Indenture Provisions Subordination

Upon any distribution of our assets upon our dissolution, winding up, liquidation or reorganization, the payment of the principal of (and premium, if any) and interest on any indenture securities denominated as subordinated debt securities is to be subordinated to the extent provided in the indenture in right of payment to the prior payment in full of all Senior Indebtedness (defined below), but our obligation to holders to make payment of the principal of (and premium, if any) and interest on such subordinated debt securities will not otherwise be affected. In addition, no payment on account of principal (or premium, if any), interest or sinking fund, if any, may be made on such subordinated debt securities at any time unless full payment of all amounts due in respect of the principal (and premium, if any), interest and sinking fund, if any, on Senior Indebtedness has been made or duly provided for in money or money's worth.

In the event that, notwithstanding the foregoing, any payment from us is received by the trustee in respect of subordinated debt securities or by the holders of any of such subordinated debt securities before all Senior Indebtedness is paid in full, the payment or distribution must be paid over to the holders of the Senior Indebtedness or on their behalf for application to the payment of all the Senior Indebtedness remaining unpaid until all the Senior Indebtedness has been paid in full, after giving effect to any concurrent payment or distribution to the holders of the Senior Indebtedness. Subject to the payment in full of all Senior Indebtedness, the holders of such subordinated debt securities will be subrogated to the rights of the holders of the Senior Indebtedness to the extent of payments made to the holders of the Senior Indebtedness out of the distributive share of such subordinated debt securities.

By reason of this subordination, in the event of a distribution of our assets upon our insolvency, certain of our senior creditors may recover more, ratably, than holders of any subordinated debt securities. The related indenture will provide that these subordination provisions will not apply to money and securities held in trust under the defeasance provisions of the indenture.

"Senior Indebtedness" will be defined in an applicable indenture as the principal of (and premium, if any) and unpaid interest on:

- our indebtedness (including indebtedness of others guaranteed by us), whenever created, incurred, assumed or guaranteed, for money borrowed (other than indenture securities issued under the indenture and denominated as subordinated debt securities), unless in the instrument creating or evidencing the same or under which the same is outstanding it is provided that this indebtedness is not senior or prior in right of payment to the subordinated debt securities; and

- renewals, extensions, modifications and refinancings of any of such indebtedness.

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The prospectus supplement accompanying any series of indenture securities denominated as subordinated debt securities will set forth the approximate amount of our Senior Indebtedness outstanding as of a recent date.

Trustee

We intend to name the indenture trustee for each series of indenture securities in the related prospectus supplement.

Certain Considerations Relating to Foreign Currencies

Debt securities denominated or payable in foreign currencies may entail significant risks. These risks include the possibility of significant fluctuations in the foreign currency markets, the imposition or modification of foreign exchange controls and potential illiquidity in the secondary market. These risks will vary depending upon the currency or currencies involved and will be more fully described in the applicable prospectus supplement.

DESCRIPTION OF RIGHTS

The following is a general description of the terms of the rights we may issue from time to time unless we provide otherwise in the applicable prospectus supplement. Particular terms of any rights we offer will be described in the prospectus supplement relating to such rights.

General

We may issue rights to purchase common stock, preferred stock, debt securities or units. Rights may be issued independently or together with other securities and may or may not be transferable by the person purchasing or receiving the rights. In connection with any rights offering to our stockholders, we may enter into a standby underwriting, backstop or other arrangement with one or more underwriters or other persons pursuant to which such underwriters or other persons would purchase any offered securities remaining unsubscribed for after such rights offering. In connection with a rights offering to our stockholders, we would distribute certificates evidencing the rights and a prospectus supplement to our stockholders on or about the record date that we set for receiving rights in such rights offering.

The applicable prospectus supplement will describe the following terms of any rights we may issue, including some or all of the following:

- the title and aggregate number of the rights;
- the subscription price or a formula for the determination of the subscription price for the rights and the currency or currencies in which the subscription price may be payable;
- if applicable, the designation and terms of the securities with which the rights are issued and the number of rights issued with each such security or each principal amount of such security;
- the number or a formula for the determination of the number of the rights issued to each stockholder;
- the extent to which the rights are transferable;
- in the case of rights to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one right;
- in the case of rights to purchase common stock or preferred stock, the type of stock and number of shares of stock purchasable upon exercise of one right;

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the date on which the right to exercise the rights will commence, and the date on which the rights will expire (subject to any extension);

if applicable, the minimum or maximum amount of the rights that may be exercised at any one time;

the extent to which such rights include an over-subscription privilege with respect to unsubscribed securities;

if applicable, the procedures for adjusting the subscription price and number of shares of common stock or preferred stock purchasable upon the exercise of each right upon the occurrence of certain events, including stock splits, reverse stock splits, combinations, subdivisions or reclassifications of common stock or preferred stock;

the effect on the rights of any merger, consolidation, sale or other disposition of our business;

the terms of any rights to redeem or call the rights;

information with respect to book-entry procedures, if any;

the terms of the securities issuable upon exercise of the rights;

if applicable, the material terms of any standby underwriting, backstop or other purchase arrangement that we may enter into in connection with the rights offering;

if applicable, a discussion of certain U.S. Federal income tax considerations; and

any other terms of the rights, including terms, procedures and limitations relating to the exchange and exercise of the rights.

Exercise of Rights

Each right will entitle the holder to purchase for cash or other consideration such shares of stock or principal amount of securities at the subscription price as shall in each case be set forth in, or be determinable as set forth in, the prospectus supplement relating to the rights offered thereby. Rights may be exercised as set forth in the applicable prospectus supplement beginning on the date specified therein and continuing until the close of business on the expiration date set forth in the prospectus supplement relating to the rights offered thereby. After the close of business on the expiration date, unexercised rights will become void.

Upon receipt of payment and a subscription certificate properly completed and duly executed at the corporate trust office of the subscription agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, forward the securities purchasable upon such exercise. If less than all of the rights represented by such subscription certificate are exercised, a new subscription certificate will be issued for the remaining rights. If we so indicate in the applicable prospectus supplement, holders of the rights may surrender securities as all or part of the exercise price for rights.

We may determine to offer any unsubscribed offered securities directly to stockholders, persons other than stockholders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby underwriting, backstop or other arrangements, as set forth in the applicable prospectus supplement.

Prior to exercising their rights, holders of rights will not have any of the rights of holders of the securities purchasable upon subscription, including, in the case of rights to purchase common stock or preferred stock, the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise any voting rights or, in the case of rights to purchase debt securities, the right to receive principal, premium, if any, or interest payments, on the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture.

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DESCRIPTION OF UNITS

We may issue units comprising one or more securities described in this prospectus in any combination. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of the unit agreement and the unit certificate relating to any particular issue of units will be filed with the SEC each time we issue units, and you should read those documents for provisions that may be important to you. For more information on how you can obtain copies of the forms of the unit agreement and the related unit certificate, see "Where You Can Find More Information."

The prospectus supplement relating to any particular issuance of units will describe the terms of those units, including, to the extent applicable, the following:

- the designation and terms of the units and the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provision for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by Dechert LLP, Philadelphia, Pennsylvania.

EXPERTS

The consolidated financial statements incorporated in this Prospectus by reference from US Ecology, Inc.'s Annual Report on Form 10-K and the effectiveness of US Ecology Inc.'s internal control over financial reporting have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference and which (1) expresses an unqualified opinion on the financial statements and includes an emphasis of a matter paragraph referring to a change in method of presenting comprehensive income in 2012 and (2) expresses an unqualified opinion on the effectiveness of internal control over financial reporting. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

With respect to the unaudited interim financial information which is incorporated herein by reference, Deloitte & Touche LLP, an independent registered public accounting firm, have applied limited procedures in accordance with the standards of the Public Company Accounting Oversight Board (United States) for a review of such information. However, as stated in their report included in the Company's Quarterly Report on Form 10-Q and incorporated by reference herein, they did not audit and they do not express an opinion on that interim financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied. Deloitte & Touche LLP are not subject to the liability provisions of Section 11 of the Securities Act of 1933 for their report on the unaudited interim financial information because that report is not a "report" or a "part" of the Registration Statement prepared or certified by an accountant within the meaning of Sections 7 and 11 of the Act.

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WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy and information statements and other information with the Securities and Exchange Commission. Copies of these materials may be inspected and copied at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its public reference room. The SEC maintains a website that contains reports, proxy statements and other information regarding us. The address of the SEC website is http://www.sec.gov. We maintain a website at www.usecology.com. Information contained on our website is not incorporated into this prospectus and you should not consider information contained on our website to be part of this prospectus or any prospectus supplement.

INFORMATION INCORPORATED BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information contained in documents that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC before the date of this prospectus, while information that we file later with the SEC will automatically update and supersede prior information. Any information so updated and superseded shall not be deemed, except as so updated and superseded, to constitute a part of this prospectus. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, prior to the termination of the offering. Notwithstanding the foregoing, unless specifically stated to the contrary, none of the information that is not deemed "filed" with the SEC, including information furnished under Items 2.02 or 7.01 of any Current Report on Form 8-K, will be incorporated by reference into, or otherwise included in, this prospectus:

1. our Annual Report on Form 10-K for the fiscal year ended December 31, 2012 filed with the SEC on March 1, 2013;

2. our Quarterly Report on Form 10-Q filed with the SEC on April 30, 2013;

3. our Current Reports on Form 8-K filed with the SEC on February 5, 2013 and March 5, 2013; and

4. our description of our common stock contained in the registration statement filed under Section 12 of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

We make available, free of charge, through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. You may also obtain, free of charge, a copy of any of these documents (other than exhibits to these documents unless the exhibits are specifically incorporated by reference into these documents or referred to in this prospectus) by writing or calling us at the following address and telephone number:

US Ecology, Inc.
300 E. Mallard Dr.
Suite 300
Boise, ID 83706
Attention: Corporate Secretary
(208) 331-8400

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2,600,000 Shares
Common Stock

PROSPECTUS SUPPLEMENT

December , 2013

Wells Fargo Securities
Credit Suisse
Raymond James
KeyBanc Capital Markets
Wunderlich Securities
Houlihan Lokey