

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and the accompanying prospectus are 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 17, 2024

PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated December 12, 2024)



PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Shares of Common Stock

We are offering shares of our common stock by this prospectus supplement and the accompanying prospectus, at a public offering price of per share.

Our common stock is traded on The Nasdaq Capital Market under the symbol "PESI." On December 12, 2024, the last reported sale price of our common stock on The Nasdaq Capital Market was \$11.68 per share.

Investing in shares of our common stock involves significant risks that are described in the "Risk Factors" section beginning on page S-9 of this prospectus supplement and page 8 of the accompanying prospectus, and in the other documents that are incorporated by reference herein. You should read the entire prospectus supplement and the accompanying prospectus, including any information incorporated by reference herein or therein, carefully before you make your investment decision.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds, before expenses, to us	\$	\$

(1) We have agreed to reimburse the underwriters for certain expenses. See "Underwriting" beginning on page S-18 of this prospectus supplement for a description of the compensation payable to the underwriter.

We have granted the underwriter an option to purchase up to an additional shares of our common stock at the public offering price, less underwriting discounts and commissions, within 30 days from the date of this prospectus supplement.

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 underwriter expects to deliver the shares of common stock against payment therefor on or about December , 2024.

Craig-Hallum

The date of this prospectus supplement is December , 2024.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a “shelf” registration statement on Form S-3 (File No. 333-283555) that we filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. This prospectus supplement is not complete without, and may not be utilized except in connection with, the accompanying prospectus, dated December 12, 2024, which forms a part of the “shelf” registration statement on Form S-3. This prospectus supplement describes the specific terms of this offering, and also adds to and updates information contained in the accompanying prospectus. The accompanying prospectus provides more general information, some of which may not apply to this offering. We incorporate important information into this prospectus supplement and the accompanying prospectus by reference. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus prepared by or on behalf of us or to which we have referred you, in their entirety before making an investment decision regarding the securities we are offering. You should also read and consider the information in the documents to which we have referred you in the sections titled “Where You Can Find More Information” and “Information of Certain Information by Reference” in this prospectus supplement and the accompanying prospectus.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we may provide to you in connection with this offering. Moreover, you should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus prepared by or on behalf of us or to which we have referred you, is accurate only as of the dates of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference; however, 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. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

Neither we nor the underwriter have authorized any other person to provide you with any information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We and the underwriter are not making an offer to sell the common stock offered hereby in any jurisdiction where the offer or sale is not permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock offered hereby in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the securities offered hereby and the distribution of this prospectus supplement and accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities 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.

Unless otherwise indicated, information contained in this prospectus supplement, the accompanying prospectus, or the documents incorporated by reference, concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry’s future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors” in this prospectus supplement and accompanying prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus supplement. These and other important factors could cause our future performance to differ materially from our assumptions and estimates. See “Special Note Regarding Forward-Looking Statements.”

When we refer to “Perma-Fix,” “we,” “our,” “us” and the “Company” in this prospectus supplement, we mean Perma-Fix Environmental Services, Inc. and its consolidated subsidiaries, unless otherwise specified. General information about us can be found on our website at www.perma-fix.com. The information on our website is for informational purposes only and should not be relied on for investment purposes. The information on our website is not incorporated by reference into either this prospectus supplement or the accompanying prospectus and should not be considered part of this or any other report filed with the SEC.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 (File No. 333-283555), under the Securities Act of 1933, as amended (the “Securities Act”), with respect to the securities offered by this prospectus supplement. This prospectus supplement and the accompanying prospectus are part of that registration statement, but omit certain information, exhibits, schedules, and undertakings set forth in the registration statement. You may refer to the registration statement, exhibits, and schedules for more information about us and the common stock offered by this prospectus supplement. The registration statement, exhibits, and schedules are available through the SEC’s website at www.sec.gov.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and, in accordance with such requirements, we file periodic reports, proxy statements, and other information with the SEC, including our audited financial statements. Our publicly available filings can be found on the SEC’s website. We also maintain a website at www.perma-fix.com, at which you may access these filings as well as additional information that we have made public to investors. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus supplement (except for SEC reports expressly

incorporated by reference herein) or the accompanying prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information contained in documents that we file separately with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is considered to be a part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. In all cases, you should rely on the later information over different information included in this prospectus supplement and the accompanying prospectus. The following documents have been filed by us with the SEC and are incorporated by reference into this prospectus:

- Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023, filed with the SEC on March 13, 2024;
- Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024;
- Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2024, filed with the SEC on August 8, 2024
- Quarterly Report on [Form 10-Q](#) for the quarter ended September 30, 2024, filed with the SEC on November 13, 2024
- Current Report on [Form 8-K](#) filed with the SEC on January 23, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on May 14, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on May 24, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on July 19, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on December 9, 2024;
- The description of our common stock that is contained in the Registration Statement on Form 8-A filed pursuant to Section 12 of the Exchange Act, that became effective on October 30, 1992, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference the information contained in all other documents that we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than the portions that are deemed to have been furnished and not filed in accordance with SEC rules, unless otherwise indicated therein), on or after the date of this prospectus supplement and prior to the termination of the offering of the common stock covered by this prospectus supplement and the accompanying prospectus. Information in such future filings updates and supplements the information provided in this prospectus supplement and the accompanying prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

You may obtain copies of any of these filings by contacting us as described below, or by contacting the SEC or accessing its website as described above under the heading “Where You Can Find More Information.” We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus supplement but not delivered with the prospectus supplement, including exhibits that are specifically incorporated by reference into such documents. You may request a copy of these filings by writing or calling us at:

Perma-Fix Environmental Services, Inc.
Attn: Secretary
8302 Dunwoody Place, #250
Atlanta, Georgia 30350
(770) 587-9898

THE INFORMATION CONTAINED ON, OR ACCESSIBLE THROUGH, OUR WEBSITE IS NOT INCORPORATED INTO AND DOES NOT CONSTITUTE A PART OF THIS PROSPECTUS SUPPLEMENT.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, including the documents incorporated by reference into this prospectus supplement, contains “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. All statements other than statements of historical facts contained in this prospectus supplement, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management, and expected market growth, are forward-looking statements. These forward-looking statements are contained principally in the sections titled “Summary,” “Risk Factors” and “Use of Proceeds.” Without limiting the generality of the preceding sentence, any time we use the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “goal,” “intend,” “likely,” “may,” “might,” “objective,” “plan,” “possible,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will,” “would” and, in each case, their negative or other various or comparable terminology, and similar expressions, we intend to clearly express that the information deals with possible future events and is forward-looking in nature. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking.

Such statements are based on currently available operating, financial, and competitive information, and are subject to various risks, uncertainties and assumptions, including the risks, uncertainties and assumptions discussed under the caption “Risk Factors” and the factors set out below, any of which may cause our or our industry’s actual results, levels of activity, performance or achievements to differ materially from those anticipated or implied in our forward-looking statements, including but not limited to:

- The completion of the offering, the satisfaction of customary closing conditions related to the offering, and the anticipated use of proceeds therefrom;
- changes in demand for our services;
- reductions in the level of government funding in future years and its effect on the Company;
- the possibility that accelerated investments could adversely affect our operations on an ongoing basis;
- our ability to reduce operating costs and non-essential expenditures;
- our ability to meet loan agreement quarterly covenant requirements;
- our ability to collect in a timely manner a material amount of receivables;

- our cash flow requirements;
- sufficiency of liquidity to fund operations for the next 12 months through cash from operations, borrowing availability under our credit facility, financing, and the collection of accounts receivable;
- the timing and amount of revenue under a multi-year contract awarded by the European Commission to our joint venture with Campoverde Srl;
- our ability to obtain additional grants or bid awards internationally;
- the manner in which applicable governmental entities are required to spend funding to remediate various sites containing environmental hazards;
- our ability to develop and/or improve new and existing technologies in the conduct of operations;
- uncertainties related to our new PFAS destruction technology process, including market acceptance of its superiority to currently available treatment options, expenditures associated with scalability, and our ability to advance operations at our pilot PFAS destruction unit and accept commercial quantities of waste for destruction by mid-2025;
- our ability to fund remediation expenditures for sites from funds generated internally;
- the need to use internally generated funds for purposes not presently anticipated;
- discovery of additional contamination or expanded contamination at any of the sites or facilities leased or owned by us or our subsidiaries which would result in a material increase in remediation expenditures;

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- delays at our third-party disposal site, which could extend collection of our receivables greater than twelve months;
- a change in regulations reducing or even eliminating existing requirements to obtain permits for treatment, storage, and disposal (TSD) activities or licensing to handle low-level radioactive materials;
- terminations of contracts with government agencies or subcontracts involving government agencies, or reduction in amount of waste delivered to the Company under the contracts or subcontracts;
- changes in the scope of work relating to existing contracts;
- failure of our Italian joint venture partner to meet its performance obligations under the terms of the European Commission bid award;
- compliance with environmental regulations;
- our ability to obtain procurement contracts from the Department of Energy (“DOE”) and other government agencies;
- delays in waste shipments and contract awards;
- the risk that disposal expense accrual could prove to be inadequate in the event the waste requires re-treatment;
- potential effect of being a “Potentially Responsible Party,” or PRP, as such term is defined in 40 CFR § 304.12;
- potential violations of environmental laws and attendant remediation at our facilities.
- the outcome of a recently filed putative class action against the Company;
- inability to raise capital on commercially reasonable terms; and
- inability of the Company to maintain the listing of its common stock on The Nasdaq Capital Market.

The foregoing list sets forth many, but not all, of the factors that could impact our ability to achieve results described in any forward-looking statements. Investors should understand that it is not possible to predict or identify all such factors and should not consider this list to be a complete statement of all potential risks and uncertainties.

Moreover, new risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus supplement and the accompanying prospectus, any related free-writing prospectus, and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. We cannot assure you that the results, events, and circumstances reflected in any forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

You should read this prospectus supplement, the accompanying prospectus, and the documents that we incorporate by reference herein and therein with the understanding that our actual future results may be materially different from what we currently expect. You should assume that the information appearing in this prospectus supplement and the accompanying prospectus, and any document incorporated by reference herein and therein, is accurate as of its date only. Because the risks referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors may arise. In addition, we cannot predict the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus supplement and the accompanying prospectus, and any document incorporated herein and therein by reference, and particularly our forward-looking statements, by these cautionary statements.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. You should read and consider carefully the more detailed information in this prospectus supplement and in the accompanying prospectus, including the information incorporated by reference into this prospectus supplement and in the accompanying prospectus, and the information referred to under the heading "Risk Factors" in these documents, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering, before making an investment decision.

Our Company and Business

Perma-Fix Environmental Services, Inc. is a nuclear services company and provider of nuclear and mixed waste management services. Our nuclear waste services include management and treatment of radioactive and mixed waste for hospitals, research labs and institutions, federal agencies, including the U.S. Department of Energy (DOE), the U.S. Department of Defense (DOD), and the commercial nuclear industry. Our nuclear services group provides project management, waste management, environmental restoration, decontamination and decommissioning, new build construction, and radiological protection, safety and industrial hygiene capability to our clients. We operate four nuclear waste treatment and storage facilities that are licensed by the Nuclear Regulatory Commission (or state equivalent agency) and permitted by the U.S. Environmental Protection Agency ("EPA") or state-equivalent agency, which provide nuclear services at DOE, DOD, and commercial facilities nationwide.

Our business is conducted through two operating segments, treatment and services, which contributed approximately 48.5% and 51.5%, respectively, to our total revenue in 2023. Historically, we have focused our business strategy in the treatment segment on upgrading our treatment facilities to increase efficiency and modernize and expand treatment capabilities to meet the changing markets associated with the waste management industry. Within our services segment, we continue to revitalize and expand our business development programs to further increase competitive procurement effectiveness and broaden the market penetration within both the commercial and government sectors. The Company also remains focused on expansion into both commercial and international markets to supplement government spending in the United States, from which a significant portion of the Company's revenue is derived. Inherent in our strategy is the development of new services, new customers, and increased market share in our current markets.

We also conduct research and development ("R&D") activities to identify, develop and implement innovative waste processing techniques for problematic waste streams, as well as provide technical services and on-site waste management services to commercial and governmental customers.

The distribution channels for our services are through direct sales to customers or via intermediaries.

For a description of our business, financial condition, results of operations and other important information regarding Perma-Fix, we refer you to our filings with the SEC incorporated by reference into this prospectus supplement and the accompanying prospectus. For instructions on how to find copies of these documents, see "Where You Can Find More Information." More information about us is also available through our website at www.perma-fix.com. The information on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus (except for SEC reports that are expressly incorporated by reference herein and therein).

2024 Developments

PFAS Destruction Technology

In April 2024 we announced the successful completion of pilot plant testing on our new, patent-pending process for the destruction of Per- and Polyfluorinated Substances, commonly known as "PFAS." Also known as "forever chemicals," not only do PFAS compounds not degrade over time through any natural process or environmental conditions, PFAS compounds are known to bioaccumulate and are harmful to humans and the environment. Our testing, designed to demonstrate the destruction of commercial quantities of PFAS-contaminated liquids and better define the parameters needed to construct the first commercial unit, demonstrated that our patent-pending process is effective and can be applied to a variety of potential markets, including liquids, solids, soils, biosolids, and sludges.

Present disposal options for PFAS liquids include deep wells, incineration and landfills, all of which have serious environmental liability issues. We believe that our PFAS destruction process, which we call Perma-FAS, will virtually eliminate PFAS compounds (minimum of 99.9999% destruction) and reduce the environmental liability associated with these materials. Additionally, we expect that the process will operate at a highly competitive price compared to traditional disposal options.

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Our first-generation processing unit for Perma-FAS was fabricated and installed at our Perma-Fix Florida facility in Gainesville, Florida, and successfully processed our first commercial PFAS-containing waste materials on October 28, 2024. Initial rapid turn analytical results reflected an effective breakdown of the carbon-fluorine bond characteristics of PFAS at more than 99.99% after six hours of treatment. We believe that these results underscore the system's capacity to treat hazardous PFAS materials effectively, with a unique closed-loop design that eliminates air emissions. A second-generation unit, designed to increase capacity, incorporate recycling features to reduce costs, and enhance deployment efficiencies, is scheduled to be installed at our Oak Ridge, Tennessee plant in 2025.

International Initiatives

A key component of our business strategy involves expansion into both commercial and international markets to supplement government spending in the United States, from which a significant portion of the Company's revenue is derived. In December 2023, the European Commission formally awarded a multi-year contract valued at approximately EUR 50 million to a 50/50 joint venture comprised of Perma-Fix and Campoverde Srl, an Italian hazardous waste collection and disposal company, for the treatment of radioactive waste from the Joint Research Center in Ispra, Italy. Work under the contract commenced in the first quarter of 2024, performed predominately by our Campoverde Srl, our joint venture partner. We expect to generate an increase in revenue under this contract beginning in 2026, when the waste treatment phase of the project is scheduled to begin.

Other international initiatives include recent awards of over \$7 million in receipts from Mexico and Canada expected to be received in Q4 2024 – Q2 2025.

Acquisition of Environmental Waste Operations Center near Oak Ridge, Tennessee

In July 2024, we acquired the Environmental Waste Operations Center (EWOC) facility located near Oak Ridge, Tennessee that we previously had been leasing. Spanning over 29,000 square feet of licensed storage and processing area for radioactive materials on an 8-acre site, the EWOC facility is strategically located in the northwest portion of the Heritage Center near Oak Ridge, Tennessee. The facility has a rail spur that supports cost-effective transportation to western radiological waste landfills and facilitates the receipt of large component and large volume waste at the site. Additionally, the facility provides direct access to the DOE's Oak Ridge Reservation, enabling out-of-commerce transportation access to ongoing large-scale cleanup programs. We expect that the purchase will permit us to invest in facility upgrades to capitalize on regional opportunities, including large-scale decontamination projects, waste processing, trans-loading from truck to rail, and the future implementation of our Perma-FAS waste processing capabilities in conjunction with the installation of our second-generation PFAS processing unit at our Oak Ridge, Tennessee plant in 2025.

West Valley Demonstration Project

On December 2, 2024, BWXT Technologies, Inc (BWXT) announced that the DOE had awarded BWXT and its team the contract for the cleanup operations at the West Valley Demonstration Project (WVDP) in West Valley, NY. As disclosed by BWXT, the contract was awarded to West Valley Cleanup Alliance, LLC (WVCA), a joint venture led by BWXT Technical Services Group, and which includes Jacobs Technology, Inc. and Geosyntec Consultants, Inc., and which also includes Perma-Fix as one of two teaming subcontractors. Under the contract, WVCA will continue the current cleanup mission to include, but not be limited to, the demolition of remaining near- and below-grade components of the main plant process building; additional facility deactivation and demolition; contaminated soils remediation and disposition; waste management and legacy waste disposition; safeguards and security; environmental monitoring; surveillance and maintenance; and program support activities. The contract has a 10-year ordering period with a maximum value of up to \$3 billion that can be performed for up to 15 years. As an Indefinite Delivery, Indefinite Quantity (IDIQ) contract, the economics attributable to PESI have not yet been defined and are subject to certain approvals.

The WVDP is an approximately 150-acre area located 35 miles south of Buffalo, New York. The site is owned by the New York State Energy Research and Development Authority and is home to the only commercial spent nuclear fuel reprocessing facility to operate in the United States. Operating from 1963 to 1972, the site processed 640 metric tons of spent nuclear fuel and generated over 600,000 gallons of liquid high-level waste. The West Valley Demonstration Project Act, passed by Congress in 1980, required the DOE to conduct a high-level waste management demonstration project at the site and transport it to a federal repository for disposal.

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Legal Proceedings

On November 25, 2024, purported shareholder Michael O’Neill filed a complaint in the Court of Chancery of the State of Delaware against the Company and all current directors of the Company, asserting individual and class action claims for alleged breach of contract and breach of fiduciary duty. The case is styled Michael O’Neill v. Perma-Fix Environmental Services, Inc., et al., C.A. No. 2024-1211-PAF.

The complaint purports to be brought by the named plaintiff individually and on behalf of all “similarly situated Perma-Fix stockholders.” According to the complaint, defendants allegedly made materially false and misleading statements in its proxy statement filed with the SEC on June 8, 2023 regarding the effect of broker non-votes. In particular, the complaint alleges that defendants incorrectly stated in the proxy statement that broker non-votes would have no effect on the vote solicited to approve an amendment to the Company’s 2017 Stock Option Plan to increase by 600,000 shares the number of shares of common stock issuable under the plan, resulting in an alleged defective approval of the plan amendment. As of the date of this prospectus supplement, the Company has not issued any options under the plan relating to the additional shares included in the plan amendment.

The plaintiff seeks, among other things, class certification, declaring as void the amendment of the 2017 Stock Option Plan, and the award of costs and disbursements to plaintiff, including the reasonable allowance of fees and costs for attorneys, experts, and accountants.

We believe that the complaint is without merit and we and the individual defendants intend to vigorously defend against the complaint.

Company Information

We are a Delaware corporation incorporated in December 1990. Our principal executive offices are located at 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350, and our telephone number is (770) 587-9898. Our website address is www.perma-fix.com. The information on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and should not be considered to be a part of these documents. Our internet address is included in this prospectus supplement and the accompanying prospectus as an inactive textual reference only.

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THE OFFERING

Common stock offered by us _____ shares (or _____ if the underwriter exercises its option to purchase additional shares of common stock in full).

Common stock outstanding immediately after this offering _____ shares of common stock (or shares if the underwriter exercises its option to purchase additional shares in full).

Underwriter’s option to purchase additional shares We have granted the underwriter an option to purchase up to an additional _____ shares of our common stock from us, at the public offering price, less the underwriting discounts and commissions, for a period of 30 days after the date of this prospectus supplement.

Use of proceeds We estimate that the net proceeds to us from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$ _____ million (or approximately \$ _____ million if the underwriter exercises its option to purchase additional shares of common stock in full).

We expect to use the net proceeds from this offering to fund (i) continued R&D and business development relating to our patent-pending Perma-FAS process for the destruction of PFAS, as well as the cost of installing at least one second-generation Perma-FAS commercial treatment unit; (ii) ongoing facility cap-ex and maintenance costs; as well as (iii) general corporate and working capital purposes. See “Use of Proceeds” on page S-11 of this prospectus supplement for a more complete description of the intended use of proceeds from this offering.

Risk factors Investing in our securities involves a high degree of risk. You should carefully read and consider the information beginning on page S-9 of this prospectus supplement and on page 8 of the accompanying prospectus under the headings “Risk Factors” and all other information set forth in this prospectus supplement, the accompanying prospectus, and the documents incorporated herein and therein by reference before deciding to invest in our securities.

Exchange listing

Our common stock is listed on The Nasdaq Capital Market under the symbol “PESI.”

Lock-up agreements

We and each of our directors and executive officers have agreed, subject to certain exceptions, that we and they will not, for a period 90 days following the closing date of this offering, offer or contract to sell any of our shares of common stock.

The number of shares of our common stock to be outstanding immediately after this offering is based on shares of common stock outstanding as of December 12, 2024 and excludes:

- 1,000,900 shares of common stock issuable upon exercise of outstanding stock options under our stock incentive plans as of December 12, 2024 having a weighted average exercise price of \$6.18 per share;
- 897,934 shares of common stock reserved for future issuance under our equity incentive plans as of December 12, 2024; and
- 61,538 shares of common stock issuable upon the exercise of warrants outstanding as of December 12, 2024, with an exercise price of \$12.19 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants described above.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties and all other information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus, including the risks and uncertainties described below and under the caption “Risk Factors” in the accompanying prospectus and in our most recently filed Annual Report on Form 10-K filed with the SEC, in each case as these risk factors are amended or supplemented by subsequent Annual Reports on Form 10-K or Quarterly Reports on Form 10-Q that have been or will be incorporated by reference in this prospectus supplement, including any amendments thereto. The risks set forth below and incorporated herein by reference are those which we believe are the material risks that we face. The occurrence of any of such risks may materially and adversely affect our business, financial condition, results of operations and future prospects. In such an event, the market price of our common stock could decline, and you could lose part or all of your investment. Please also read carefully the section beginning on page S-3 titled “Special Note Regarding Forward-Looking Statements.”

Risks Related to this Offering

Purchasers of shares of our common stock in this offering will experience immediate and substantial dilution in the book value of their investment.

The offering price per share of common stock in this offering is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase shares of common stock in this offering, you will incur immediate substantial dilution of approximately \$ per share, representing the difference between the offering price per share, and our as adjusted net tangible book value as of September 30, 2024. Furthermore, if outstanding options and warrants are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus supplement titled “Dilution.”

You may experience future dilution of your ownership interests because of the future issuance of additional shares of the common stock

In the future, we may issue additional authorized but previously unissued equity securities, resulting in the dilution of the ownership interests of our stockholders. We are currently authorized to issue an aggregate of 30,000,000 shares of common stock and 2,000,000 shares of preferred stock, \$0.001 par value per share. As of September 30, 2024, there were 15,809,404 shares of common stock outstanding. At such date, there were no shares of preferred stock outstanding. In addition, as of September 30, 2024, there was an aggregate of approximately 1,039,900 shares of common stock issuable upon exercise of outstanding stock options under our equity incentive plans, and 897,934 shares of common stock reserved for future issuance under such plans, as well as 61,538 shares of common stock issuable upon the exercise of warrants outstanding at such date. We may also issue additional shares of common stock or preferred stock or other securities that are convertible into or exercisable for common stock in connection with hiring or retaining employees, future acquisitions, future sales of securities for capital raising purposes, or for other business purposes. The future issuance of any such additional shares of common stock may create downward pressure on the trading price of the common stock. There can be no assurance that we will not be required to issue additional shares, warrants or other convertible securities in the future in conjunction with any capital raising efforts, including at a price (or exercise prices) below the offering price of the shares of common stock in this offering.

Management will have broad discretion as to the use of the proceeds from this offering and may not use the proceeds effectively.

While management has identified broad categories of uses of the net proceeds we receive in this offering, including for any of the purposes described in the section titled “Use of Proceeds,” management necessarily retains broad discretion in the actual application of the net proceeds from this offering and could spend the proceeds in ways that may not improve our results of operations or enhance the value of our securities. Our failure to apply these funds effectively could have a material adverse effect on our business and cause the price of our common stock to decline. Pending their use, we may invest our net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders. See “Use of Proceeds” on page S-11 of this prospectus supplement.

We may be required to raise additional capital by issuing new securities with terms or rights superior to those of our existing stockholders, or at a price per share that is less than the price per share paid by investors in this offering, which could adversely affect the market price of shares of our common stock and our business.

We expect to require additional financing to fund future operations. We may not be able to obtain financing on favorable terms, if at all. If we raise additional funds by issuing equity securities, we may sell shares of our common stock or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering. Additionally, if we raise additional funds by issuing equity securities, the percentage ownership of our current stockholders will be reduced, and, if the equity securities issued are preferred shares, the holders of the new preferred shares may have rights superior to those of our existing securityholders, which could adversely affect rights of our existing securityholders and the market price of our common stock. If we raise additional funds by issuing debt securities, the holders of those debt securities would have some rights senior to those of our existing securityholders, and the terms of these debt securities could impose restrictions on operations and create a significant interest expense for us, which could have a materially adverse effect on our business.

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The price of our common stock may be volatile.

The market price of our common stock may fluctuate substantially. For example, from December 12, 2023 through December 12, 2024, the market price of our common stock has fluctuated between \$16.25 and \$7.28. The price of our common stock that will prevail in the market after this offering may be higher or lower than the price that you have paid, depending on many factors, some of which are beyond our control and may not be related to our operating performance. Stock market volatility may also adversely affect the trading price of our common stock. In the past, following periods of volatility in the market price of a company’s securities, stockholders have often

instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our profitability and reputation.

Our failure to comply with the continued listing requirements of Nasdaq could adversely affect the price of our common stock and our liquidity.

Our common stock is currently listed on The Nasdaq Capital Market. In order to maintain that listing, we must satisfy minimum financial and other continued listing requirements and standards related to, among other things, stockholders' equity, market value, minimum bid price, and corporate governance in order to remain so listed. Although we are currently in compliance with such listing requirements, there can be no assurances that we will be able to continue to comply with the applicable listing requirements.

If we do not remain compliant with Nasdaq's continued listing requirements, we could be delisted from The Nasdaq Capital Market. If we were delisted, it would likely have a negative impact on the price of our common stock and our liquidity. If we are delisted from The Nasdaq Capital Market and we are not able to list our common stock on another exchange, our common stock could be quoted on one of the markets maintained by OTC Markets Group Inc. As a result, we could face significant adverse consequences including, among others:

- a limited availability of market quotations for our securities;
- a determination that our common stock is a "penny stock," which would require broker-dealers trading in our common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our securities;
- a limited amount of news and little or no analyst coverage of the Company;
- we would no longer qualify for exemptions from state securities registration requirements, which may require us to comply with applicable state securities laws; and
- a decreased ability to issue additional securities (including pursuant to short-form registration statements on Form S-3) or obtain additional financing in the future.

As a result of these factors, the value of our common stock could decline significantly.

We do not intend to pay dividends on our common stock for the foreseeable future.

We have never declared or paid any cash dividends on our common stock and do not intend to pay any cash dividends in the foreseeable future. We anticipate that we will retain all of our future earnings for use in the development of our business and for general corporate purposes. Any determination to pay dividends in the future will be at the discretion of our Board. In addition, we have agreed with our principal lender not to pay dividends without the consent of the lender. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

There is a limited trading market for our common stock, which could make it difficult to liquidate an investment in our common stock in a timely manner.

Our common stock is currently traded on The Nasdaq Capital Market. Because there is a limited public market for our common stock, investors may not be able to liquidate their investment whenever desired. We cannot assure that there will be an active trading market for our common stock and the lack of an active public trading market could mean that investors may be exposed to increased risk. In addition, if we failed to meet the criteria set forth in SEC regulations, various requirements would be imposed by law on broker-dealers who sell our securities to persons other than established customers and accredited investors. Consequently, such regulations may deter broker-dealers from recommending or selling our common stock, which may further affect its liquidity.

We have identified a material weakness in our internal control over financial reporting which may, if not remediated, result in material misstatements in our financial statements.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934. As disclosed in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2024, our controls and procedures were not effective as a result of a material weakness in internal controls over financial reporting. The material weakness related to the level of precision needed to properly evaluate the need for a valuation allowance on our U.S. deferred tax assets. This material weakness resulted in an income tax valuation adjustment recorded during the quarter ended September 30, 2024. The error was corrected by management in the Condensed Consolidated Financial Statements as of September 30, 2024, and for the three and nine months ended September 30, 2024. The material weakness noted did not result in a material misstatement in our previously issued financial statements. We are actively engaged in developing a remediation plan designed to address this material weakness. If our remedial measures are insufficient to address the material weakness, or if additional material weaknesses or significant deficiencies in our internal control are discovered or occur in the future, our ability to record, process and report financial information accurately, and to prepare financial statements within required time periods, could be adversely affected. If we are unable to remediate the material weakness, or if we are otherwise unable to maintain effective internal control over financial reporting, our financial statements may contain material misstatements and we could be required to restate our financial results. If our financial statements are not filed on a timely basis or we are required to restate our financial results, we could be in violation of covenants contained in the agreements governing our debt and other borrowings.

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USE OF PROCEEDS

We estimate that the net proceeds to us from the issuance and sale of _____ shares of common stock in this offering will be approximately \$ _____ million (or \$ _____ if the underwriter exercises its option to purchase additional shares of common stock in full) after deducting underwriting discounts and commissions and estimated offering expenses payable to us.

We currently intend to use the net proceeds from this offering to fund (i) continued R&D and business development relating to our patent-pending Perma-FAS process for the destruction of PFAS, as well as the cost of installing at least one second-generation Perma-FAS commercial treatment unit; (ii) ongoing facility cap-ex and maintenance costs; as well as (iii) general corporate and working capital purposes.

We have not determined the amount of net proceeds to be used specifically for such purposes. This expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual use of the net proceeds may vary significantly depending on numerous factors, including the actual net proceeds from this offering, the progress of our continued research and development regarding the Perma-FAS process for the destruction of PFAS, the amount of cash generated by our operations, the amount of competition we face, and other operational factors, as well as the factors described under "Risk Factors" in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, and any unforeseen cash needs. As a result, management will retain broad discretion over the allocation of net proceeds, and investors will be relying on the judgment of our management regarding the application of the net proceeds of this offering.

Pursuant to the credit agreement between us and our lender, PNC Bank, N.A., the net proceeds of this offering are considered collateral but may be utilized by us at our discretion, so long as no Event of Default (as defined in the credit agreement) exists. In the event that any such Event of Default were to exist, any uninvested proceeds existing at the time of such default could be applied by the lender against any of our outstanding indebtedness with it.

Based on our current plans, we believe our existing cash, cash equivalents and short-term investments, together with the net proceeds from this offering, will be sufficient to fund the growth of our revenues and our operations for the foreseeable future. We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we expect.

Pending the use of the proceeds from this offering, we may temporarily invest the net proceeds in a variety of capital preservation instruments, including investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government, or may hold such proceeds as cash until they are used for their stated purpose.

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CAPITALIZATION

The following table sets forth our cash and capitalization as of September 30, 2024, on an actual basis and as adjusted to give effect to this offering. You should read the following table together with our consolidated financial statements and notes thereto incorporated by reference into this prospectus supplement and the accompanying prospectus.

	As of September 30, 2024 (in thousands, except share amounts) (Unaudited)	
	Actual	As Adjusted ⁽¹⁾
Cash and cash equivalents	\$ 10,567	\$
Total liabilities	35,792	
Stockholders' equity:		
Preferred stock, \$.001 par value, 2,000,000 shares authorized, no shares issued and outstanding	--	--
Common stock, \$.001 par value, 30,000,000 shares authorized, actual and as adjusted, 15,817,046 shares issued, actual, and shares issued, as adjusted ⁽²⁾	16	
Additional paid-in capital	136,047	
Accumulated deficit	(93,441)	(93,441)
Accumulated other comprehensive loss	(168)	(168)
Less common stock in treasury, at cost, 7,642	(88)	(88)
Total stockholders' equity	42,366	
Total capitalization	\$ 78,158	\$

(1) Does not give effect to the application of the net proceeds from this offering.

(2) Based on the number of shares of our common stock issued and outstanding as of September 30, 2024, and assumes that shares of common stock are sold in this offering and that the underwriter does not exercise its option to purchase additional shares. This share balance excludes: (i) 1,039,900 shares of common stock issuable upon exercise of outstanding stock options under our stock incentive plans as of September 30, 2024 having a weighted average exercise price of \$6.12 per share; (ii) 897,934 shares of common stock reserved for future issuance under our equity incentive plans as of September 30, 2024; and (iii) 61,538 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2024, with an exercise price of \$12.19 per share.

To the extent that any options are exercised, new options are issued under our equity incentive plans, or we issue additional shares of common stock pursuant to the underwriter's option referenced above or otherwise, investors purchasing shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the offering price per share and the adjusted net tangible book value per share of our common stock after this offering. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities (other than deferred tax liabilities), divided by the number of outstanding shares of our common stock. As of September 30, 2024, our net tangible book value was approximately \$31,493,000, or approximately \$1.99 per share, based on 15,809,404 shares of common stock outstanding at that date. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale by us of shares of Common Stock being offered in this offering at an offering price of \$ per share and after deducting the commissions and estimated offering expenses payable by us, our as-adjusted net tangible book value as of September 30, 2024 would have been approximately \$, or \$ per share of common stock. This represents an immediate increase in the net tangible book value of \$ per share to our existing stockholders and an immediate and substantial dilution in net tangible book value of \$ per share to new investors. The following table illustrates this per share dilution:

Offering price per share	\$
Net tangible book value per share as of September 30, 2024	\$ 1.99
Increase in net tangible book value per share attributable to this offering	\$
As adjusted net tangible book value per share as of September 30, 2024, after giving effect to this offering	\$
Dilution per share to new investors purchasing shares in this offering	\$

The above discussion and table are based on 15,809,404 shares of Common Stock outstanding as of September 30, 2024 and excludes the following securities:

1,039,900 shares of common stock issuable upon exercise of outstanding stock options under our stock incentive plans as of September 30, 2024 having a weighted average exercise price of \$6.12 per share;

897,934 shares of common stock reserved for future issuance under our equity incentive plans as of September 30, 2024; and

61,538 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2024, with an exercise price of \$12.19 per share.

To the extent that any options are exercised, new options are issued under our equity incentive plans, or we issue additional shares of common stock pursuant to the warrants referenced above or otherwise, investors purchasing shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due

to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DIVIDEND POLICY

We have never declared dividends on our equity securities, and currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. The payment of cash dividends in the future, if any, will be at the discretion of our Board of Directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our Board of Directors. In addition, we have agreed with our principal lender not to pay dividends without the consent of the lender.

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CERTAIN U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following discussion describes certain material U.S. federal income consequences of the acquisition, ownership and disposition of our common stock acquired in this offering. This discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing and proposed U.S. Treasury regulations promulgated thereunder, and administrative rulings and court decisions in effect as of the date hereof, all of which are subject to change at any time, possibly with retroactive effect. No ruling has been or will be sought from the Internal Revenue Service, or the IRS, with respect to the matters discussed below, and there can be no assurance the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

We assume in this discussion that the shares of our common stock will be held as capital assets (generally, property held for investment). This discussion does not address all aspects of U.S. federal income taxes, does not discuss the potential application of the Medicare contribution tax or the alternative minimum tax and does not deal with state or local taxes or any U.S. federal taxes other than income taxes (such as gift and estate taxes), or any non-U.S. tax consequences that may be relevant to holders in light of their particular circumstances. This discussion also does not address the special tax rules applicable to particular holders, such as:

- a bank, insurance company, or other financial institution;
- a tax-exempt entity, organization, or arrangement;
- a government or any agency, instrumentality, or controlled entity thereof;
- a real estate investment trust;
- a regulated investment company;
- a “controlled foreign corporation” or a “passive foreign investment company”;
- a dealer or broker in stocks and securities, or currencies;
- a trader in securities that elects mark-to-market treatment or any other holder subject to mark-to-market treatment;
- a holder of our common stock that holds such security in a tax-deferred account (such as an individual retirement account or a plan qualifying under Section 401(k) of the Code);
- a U.S. Holder, as defined below, of our common stock that has a functional currency other than the U.S. dollar;
- a holder of our common stock that holds such security as part of a hedge, straddle, constructive sale, conversion or other integrated transaction;
- a holder of our common stock required to accelerate the recognition of any item of gross income with respect to such security, as a result of such income being recognized on an applicable financial statement;
- a holder of our common stock that is a U.S. expatriate or former citizen or long-term resident of the United States; or
- a holder of our common stock whose security may constitute “qualified small business stock” under Section 1202 of the Code.

In addition, this discussion does not address the tax treatment of partnerships or other pass-through entities or persons who hold our common stock through partnerships or other entities which are pass-through entities for U.S. federal income tax purposes. If a partnership or other pass-through entity holds our common stock, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership or other pass-through entity. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other pass-through entity, as applicable.

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The discussion of U.S. federal income tax considerations is for information purposes only and is not tax advice. Investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of acquiring, holding and disposing of our common stock.

For the purposes of this discussion, a “U.S. Holder” means a beneficial owner of our common stock that is for U.S. federal income tax purposes (a) an individual citizen or resident of the United States, (b) a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more “United States persons” (within the meaning of Section 7701(a)(30) of the Code) has 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 United States person. For purposes of this discussion, a “non-U.S. Holder” is a beneficial owner of common stock that is for U.S. federal income tax purposes (i) a foreign corporation, (ii) a nonresident alien individual, or (iii) a foreign estate or trust that in each case is not subject to U.S. federal income tax on a net-income basis on income or gain from common stock.

Tax Considerations Applicable to U.S. Holders

Distributions

As discussed above in the section captioned “Dividend Policy”, we currently anticipate that we will retain all available funds and any future earnings for use in the

operation of our business and do not anticipate declaring or paying any cash dividends on our common stock for the foreseeable future. In the event that we do make distributions on our common stock to a U.S. Holder, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Distributions to a U.S. Holder that are not derived from our current or accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, the U.S. Holder's adjusted tax basis in our common stock, and to the extent in excess of such basis, will be treated as gain realized on the sale or exchange of our common stock, as applicable, as described below under the section titled "*Disposition of Our Common Stock*."

Disposition of Our Common Stock

Upon a sale or other taxable disposition of our common stock, a U.S. Holder generally will recognize capital gain or loss in an amount equal to the difference between the amount realized and the U.S. Holder's adjusted tax basis in the applicable common stock. Capital gain or loss will constitute long-term capital gain or loss if the U.S. Holder's holding period for the applicable common stock exceeds one year. The deductibility of capital losses is subject to certain limitations. U.S. Holders who recognize losses with respect to a disposition of our common stock should consult their own tax advisors regarding the tax treatment of such losses.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of dividends (including constructive dividends) on our common stock and to the proceeds of a sale or other disposition of common stock by a U.S. Holder unless such U.S. Holder is an exempt recipient, such as a corporation, and establishes such status. Backup withholding will apply to those payments if the U.S. Holder fails to provide the holder's taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption. Backup withholding is not an additional tax. Rather, amounts withheld as backup withholding may be credited against a person's U.S. federal income tax liability, and a holder generally may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

Tax Considerations Applicable to Non-U.S. Holders

Distributions

As discussed above in the section captioned "Dividend Policy", we currently anticipate that we will retain all available funds and any future earnings for use in the operation of our business and do not anticipate declaring or paying any cash dividends on our common stock for the foreseeable future. In the event that we do make distributions on our common stock to a Non-U.S. Holder, those distributions generally will be treated as dividends, as a return of capital or as gain on the sale or exchange of common stock for U.S. federal income tax purposes as described in "*Tax Considerations Applicable to U.S. Holders —Distributions*." Subject to the discussions below under the sections titled "*Information Reporting and Backup Withholding*" and "*Foreign Accounts*," any distribution (including constructive distributions) on our common stock that is treated as a dividend paid to a Non-U.S. Holder that is not effectively connected with the holder's conduct of a trade or business in the United States (or, if required by an applicable income tax treaty between the United States and such Non-U.S. Holder's country of residence, is not attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States) will generally be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and the Non-U.S. Holder's country of residence. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide the applicable withholding agent with a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. Such form must be provided prior to the payment of dividends and must be updated periodically.

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We generally are not required to withhold tax on dividends paid (or constructive dividends deemed paid) to a Non-U.S. Holder that are effectively connected with such Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder's permanent establishment or fixed base in the United States to which such dividends are attributable) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is timely furnished to us. In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates applicable to, and in the same manner as, U.S. persons, unless an applicable treaty provides otherwise. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments.

Distributions to a Non-U.S. Holder that are not derived from our current or accumulated earnings and profits generally will be treated as a return of capital that will be applied against and reduce (but not below zero) the Non-U.S. Holder's basis in its common stock, as applicable, and to the extent in excess of such basis, will be treated as gain from the sale or exchange of such common stock, as applicable, as described under "*Disposition of Our Common Stock*" below.

Disposition of Our Common Stock

Subject to the discussions below under the sections titled "*Information Reporting and Backup Withholding*" and "*Foreign Accounts*," a Non-U.S. Holder generally will not be subject to U.S. federal income or withholding tax with respect to gain realized on a sale or other disposition of our common stock unless:

- the gain is effectively connected with the Non-U.S. Holder's conduct of a trade or business in the United States (and, if required by an applicable income tax treaty between the United States and such Non-U.S. Holder's country of residence, the gain is attributable to a permanent establishment or fixed base maintained by the Non-U.S. Holder in the United States), in which case the Non-U.S. Holder will be taxed on a net income basis at the regular rates and in the manner applicable to U.S. persons, and if the Non-U.S. Holder is a corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;
- the Non-U.S. Holder is a nonresident alien present in the United States for a period or periods aggregating 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the Non-U.S. Holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S.-source capital losses of the Non-U.S. Holder, if any, provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are, or have been, a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes during the five-year period preceding such disposition (or the Non-U.S. Holder's holding period, if shorter). We do not believe that we are or have been a USRPHC and, even if we are or were a USRPHC, as long as our common stock is regularly traded on an established securities market, dispositions will not be subject to tax for a Non-U.S. Holder that has not held more than 5% of our common stock, actually or constructively, during the five-year period preceding such Non-U.S. Holder's disposition (or the Non-U.S. Holder's holding period, if shorter). However, there can be no assurance that we are not currently, or will not become, a USRPHC or that our common stock will be regularly traded on an established securities market for purposes of the rules described above.

See the sections titled "*Information Reporting and Backup Withholding*" and "*Foreign Accounts*" below for additional information regarding withholding rules that may apply to proceeds of a disposition of our common stock paid to foreign financial institutions or non-financial foreign entities.

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Information Reporting and Backup Withholding

We must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions (including constructive distributions) on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. Holders may have to comply with specific certification procedures to establish that the Non-U.S. Holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 24%. Generally, a Non-U.S. Holder will comply with such procedures if it provides a properly executed applicable IRS Form W-8 or by otherwise establishing an exemption. Dividends paid to Non-U.S. Holders subject to withholding of U.S. federal income tax, as described above under the heading “—Distributions,” will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the Non-U.S. Holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. Holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the Non-U.S. Holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder can be refunded or credited against the Non-U.S. Holder’s U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

Foreign Accounts

Legislation commonly referred to as the “Foreign Account Tax Compliance Act,” or “FATCA,” generally imposes a 30% withholding tax on dividends on common stock if paid to a non-U.S. entity and certain other withholdable payments, unless (i) if the non-U.S. entity is a “foreign financial institution,” the non-U.S. entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the non-U.S. entity is not a “foreign financial institution,” the non-U.S. entity identifies certain of its U.S. investors, if any, or (iii) the non-U.S. entity is otherwise exempt under FATCA.

While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock on or after January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers (including applicable withholding agents) generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Intergovernmental agreements between the United States and foreign countries with respect to FATCA may significantly modify the requirements described in this section for Non-U.S. Holders. Holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

The preceding discussion of material U.S. federal tax considerations is for information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

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UNDERWRITING

We are offering the shares of our common stock described in this prospectus supplement and the accompanying base prospectus through the underwriter listed below. The underwriter named below has agreed to buy, subject to the terms of the underwriting agreement, the number of shares of common stock listed opposite its name below. The underwriter is committed to purchase and pay for all of the shares if any are purchased, other than those shares covered by the over-allotment option described below. Craig-Hallum Capital Group LLC is the sole underwriter.

Underwriter	Number of Shares
Craig-Hallum Capital Group LLC	
Total	

The underwriter has advised us that it proposes to offer the shares of common stock to the public at a price of \$ _____ per share. The underwriter proposes to offer the shares of common stock to certain dealers at the same price less a concession of not more than \$ _____ per share. After the offering, these figures may be changed by the underwriter.

The shares sold in this offering are expected to be ready for delivery on or about _____, 2024, against payment in immediately available funds. The underwriter may reject all or part of any order.

We have granted the underwriter an option to purchase up to an additional _____ shares of common stock from us at the same price to the public, and with the same underwriting discount, as set forth in the table below. The underwriter may exercise this option any time, and from time to time, during the 30-day period after the date of this prospectus supplement (each, an “Option Closing Date”). To the extent the underwriter exercises the option, the underwriter will become obligated, subject to certain conditions, to purchase the shares for which it exercises the option.

The table below summarizes the underwriting discounts that we will pay to the underwriter. These amounts are shown assuming both no exercise and full exercise of the over-allotment option. In addition to the underwriting discount, we have agreed to reimburse up to \$95,000 of the fees and expenses of the underwriter, which includes the fees and expenses of counsel to the underwriter, in connection with this offering. The fees and expenses of the underwriter that we have agreed to reimburse are not included in the underwriting discounts set forth in the table below. The underwriting discount and reimbursable expenses the underwriter will receive were determined through arms’ length negotiations between us and the underwriter.

	Per Share	Total with no Over-Allotment	Total with Over-Allotment
Public offering price	\$ _____	\$ _____	\$ _____
Underwriting discounts and commissions(1)	\$ _____	\$ _____	\$ _____
Proceeds, before expenses and fees, to us	\$ _____	\$ _____	\$ _____

(1) The underwriter shall receive an underwriting discount of 7.0% of the aggregate gross proceeds hereunder.

We estimate that the total expenses of this offering, excluding underwriting discounts, will be approximately \$ _____. This includes \$95,000 of fees and expenses of the underwriter which are payable by us.

Underwriter’s Warrants

Upon closing of this offering and on each Option Closing Date, if any, we have agreed to issue the underwriter warrants (the “Underwriter’s Warrants”) as compensation to purchase up to _____ shares of common stock (approximately 5% of the number of shares of common stock sold in this offering). The Underwriter’s Warrants will be exercisable at a per share exercise price of \$ _____. The Underwriter’s Warrants are exercisable, in whole or in part, during the five-year period commencing from the commencement of sales of the shares of common stock in this offering.

The exercise price and number of shares issuable upon exercise of the Underwriter’s Warrants may be adjusted in certain circumstances including in the event of a stock dividend or our recapitalization, reorganization, merger or consolidation. However, the Underwriter’s Warrant exercise price or underlying shares will not be adjusted for issuances of shares of common stock at a price below the warrant exercise price.

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Financial Advisor Compensation

Wellington Shields & Co, LLC (“Wellington Shields”) has acted as financial advisor to the Company in connection with this offering, and, in connection therewith, the underwriter has agreed with us that Wellington Shields will be paid, as compensation for its services as financial advisor to the Company, 25% of the underwriting discount and commissions otherwise payable to the underwriter subsequent to the closing of the offering. In addition, we and the underwriter have agreed that the financial advisor will be issued 25% of the Underwriter’s Warrants.

Indemnification

Subject to certain limitations, we have agreed to indemnify the underwriter against certain liabilities, including civil liabilities under the Securities Act, or to contribute to payments that the underwriter may be required to make in respect of those liabilities.

Lock-Up Agreements

We have agreed to not sell any shares of our common stock, or any securities convertible into or exercisable or exchangeable into shares of common stock, subject to certain exceptions, for a period of 90 days after the closing of this offering unless we obtain prior written consent of the underwriter. Consent may be given at any time without public notice, and the underwriter may consent in its sole discretion. In addition, each of our directors and executive officers has entered into a lock-up agreement with the underwriter. Under the lock-up agreements, subject to certain limited circumstances, our directors and executive officers of the Company may not sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash settlement or otherwise) by such director or executive officer or any affiliate of such person), during the period from the date of this prospectus supplement continuing through the date 90 days after the closing of this offering without first obtaining the written consent of the underwriter. This consent may be given at any time without public notice, and the underwriter may consent in its sole discretion.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of securities in this offering is complete, SEC rules may limit the ability of the underwriter to bid for and purchase shares of our common stock. As an exception to these rules, underwriters are permitted to engage in certain transactions which stabilize the price of the shares of common stock, which may include short sales, covering transactions and stabilizing transactions. Short sales involve sales of shares of common stock in excess of the number of shares to be purchased by the underwriter in the offering, which creates a short position. “Covered” short sales are sales made in an amount not greater than the underwriter’s option to purchase additional shares of common stock from us in the offering. An underwriter may close out any covered short position by either exercising its option to purchase additional shares of common stock or purchasing shares of common stock in the open market. “Naked” short sales are any sales in excess of such option. A naked short position is more likely to be created if the underwriter is concerned that there may be downward pressure on the price of the shares of common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of the shares of common stock made by the underwriter in the open market prior to the completion of the offering.

The underwriter may also impose a penalty bid. This occurs when a particular underwriter repays to another underwriter a portion of the underwriting discount received by it because the representative has repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above might have on our shares of common stock. Any of these activities may have the effect of preventing or retarding a decline in the market price of our shares of common stock. They may also cause the price of the shares of common stock to be higher than the price that would otherwise exist in the open market in the absence of these transactions. If an underwriter commences any of these transactions, it may discontinue them at any time without notice.

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Other Relationships

The underwriter and its respective affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. The underwriter may in the future receive customary fees and commissions for these transactions.

In the ordinary course of its various business activities, the underwriter and its 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 its customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriter and its 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.

Electronic Offer, Sale and Distribution

A prospectus supplement in electronic format may be made available on the websites maintained by the underwriter, if any, participating in this offering and the underwriter may distribute prospectus supplements electronically. Other than the prospectus supplement in electronic format, the information on these websites is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved or endorsed by us or the underwriter, and should not be relied upon by investors.

Transfer Agent

The transfer agent for our common stock is Continental Stock Transfer & Trust Company.

Listing on Nasdaq

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Steptoe & Johnson PLLC. The underwriter is being represented in connection with this offering by Troutman Pepper Hamilton Sanders LLP.

EXPERTS

The audited consolidated financial statements incorporated by reference in this prospectus supplement and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

PROSPECTUS



PERMA-FIX ENVIRONMENTAL SERVICES, INC.

\$100,000,000

**Common Stock
Preferred Stock
Debt Securities
Depository Shares
Warrants
Rights
Purchase Contracts
Units**

We may offer and sell from time to time shares of our common stock, shares of our preferred stock, debt securities, depository shares, warrants, rights, purchase contracts or units, or any combination thereof, 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 \$100,000,000 (or its equivalent in foreign currencies, currency units or composite currencies).

This prospectus describes some of the general terms that may apply to these securities and the manner in which they may be offered. We will provide the specific terms of any offering of securities in one or more supplements to this prospectus containing more information about the particular offering. The prospectus supplement also may add, update or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement, together with the documents we incorporate by reference, before you invest. This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.

These securities may be sold on a continuous or delayed basis to or through underwriters, brokers or dealers, directly to purchasers, through agents in “at the market” offerings or otherwise through a combination of any of these methods of sale.

Our common stock is traded on The Nasdaq Capital Market under the symbol “PESI.” If we decide to list or seek a quotation for any other securities, the prospectus supplement relating to those securities will disclose the exchange or market on which those securities will be listed or quoted.

Investing in our securities involves significant risks. You should review carefully the risks and uncertainties described under the heading “Risk Factors” on page 8 of this prospectus and any similar section contained in the applicable prospectus supplement and any related free writing prospectus we have authorized for use in connection with a specific offering, as well as the “Risk Factors” incorporated by reference into this prospectus from our filings made with the Securities and Exchange Commission.

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

The date of this prospectus is December 12, 2024.

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ABOUT THIS PROSPECTUS

To understand the terms of the securities offered by this prospectus, you should carefully read this prospectus and any applicable prospectus supplement. You should also read the documents referred to under the heading “Where You Can Find More Information” for information on us and the business conducted by us.

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 shares of our common stock, shares of our preferred stock, debt securities, depositary shares, warrants, rights, purchase contracts or units, or any combination thereof, 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 \$100,000,000 (or its equivalent in foreign currencies, currency units or composite currencies). This prospectus provides you with a general description of the securities. Each time we offer the securities, we will provide a prospectus supplement that describes the terms of the 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 “Incorporation of Certain Information 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 found on the SEC’s website at www.sec.gov.

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus, any accompanying prospectus supplement 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. 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. We are not making an offer to sell the securities in any jurisdiction where the offer or sale is not permitted.

We may sell the securities to or through underwriters, brokers or dealers, directly to purchasers, through agents, in “at the market” offerings or otherwise through a combination of any of these methods of sale. The securities may be sold for U.S. dollars, foreign-denominated currency, currency units or composite currencies. Amounts payable with respect to any securities may be payable in U.S. dollars or foreign-denominated currency, currency units or composite currencies as specified in the applicable prospectus supplement. We and our agents reserve the sole right to accept or reject in whole or in part any proposed purchase of the securities. The prospectus supplement, which we will provide each time we offer the securities, will set forth the names of any underwriters, dealers or agents involved in the sale of the securities, and any related fee, commission or discount arrangements. See “Plan of Distribution.”

The prospectus supplement may also contain information about any material U.S. federal income tax considerations relating to the securities covered by the prospectus supplement.

Unless the context otherwise requires, references in this prospectus to “Perma-Fix,” the “Company,” “we,” “our,” and “us” refer to Perma-Fix Environmental Services, Inc. and its consolidated subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus. This prospectus, which is part of the registration statement, omits certain information, exhibits, schedules, and undertakings set forth in the registration statement. You may refer to the registration statement, exhibits, and schedules for more information about us and the securities. The registration statement, exhibits, and schedules are available through the SEC’s website at www.sec.gov.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and, in accordance with such requirements, we file periodic reports, proxy statements, and other information with the SEC, including our audited financial statements. Our publicly available filings can be found on the SEC’s website. We also maintain a website at www.perma-fix.com, at which you may access these filings as well as additional information that we have made public to investors. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus (except for SEC reports expressly incorporated by reference herein).

You should rely only on the information in this prospectus and the additional information described above and under the heading “Incorporation of Certain Information by Reference” below. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely upon it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus was accurate on the date of the front cover of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information contained in documents that we file separately with the SEC, which means that we can disclose important information to you by referring you to those other documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. In all cases, you should rely on the later information over different information included in this prospectus or the prospectus supplement. The following documents have been filed by us with the SEC and are incorporated by reference into this prospectus:

- Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2023, filed with the SEC on March 13, 2024;
- Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2024, filed with the SEC on May 09, 2024;
- Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2024, filed with the SEC on August 8, 2024
- Quarterly Report on [Form 10-Q](#) for the quarter ended September 30, 2024, filed with the SEC on November 13, 2024
- Current Report on [Form 8-K](#) filed with the SEC on April 10, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on May 14, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on May 24, 2024;
- Current Report on [Form 8-K](#) filed with the SEC on July 19, 2024;
- The description of our common stock that is contained in the Registration Statement on Form 8-A filed pursuant to Section 12 of the Exchange Act, that became effective on October 30, 1992, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant with the SEC pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than documents or portions of documents deemed to be furnished pursuant to the Exchange Act), prior to the filing of a post-effective amendment which indicates that all securities offered have been sold, or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be a part hereof from the date of filing of such documents.

You should not assume that the information in this prospectus, the prospectus supplement, any applicable pricing supplement or any document incorporated by reference is accurate as of any date other than the date of the applicable document. Any statement contained in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may obtain copies of any of these filings by contacting us as described below, or by contacting the SEC or accessing its website as described above under the heading “Where You Can Find More Information.” We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You may request a copy of these filings by writing or calling us at:

Perma-Fix Environmental Services, Inc.
8302 Dunwoody Place, #250
Atlanta, Georgia 30350
(770) 587-9898

THE INFORMATION CONTAINED ON, OR ACCESSIBLE THROUGH, OUR WEBSITE IS NOT INCORPORATED INTO AND DOES NOT CONSTITUTE A PART OF THIS PROSPECTUS.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents incorporated by reference into this prospectus, contains “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management, and expected market growth are forward-looking statements. These forward-looking statements are contained principally in the sections titled “Summary,” “Risk Factors” and “Use of Proceeds.” Without limiting the generality of the preceding sentence, any time we use the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “goal,” “intend,” “likely,” “may,” “might,” “objective,” “plan,” “possible,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will,” “would” and, in each case, their negative or other various or comparable terminology, and similar expressions, we intend to clearly express that the information deals with possible future events and is forward-looking in nature. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking.

These statements are only predictions and involve known and unknown risks, uncertainties, and other factors, including the risks, uncertainties and assumptions discussed under the caption “Risk Factors” and the risks set out below, any of which may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. These risks include, by way of example and not in limitation:

- demand for our services;
- reductions in the level of government funding in future years and its effect on the Company;
- the possibility that accelerated investments could adversely affect our operations on an ongoing basis;
- our belief that our base business is well-positioned for fiscal 2025;

- our belief that advancement of certain initiatives should have a positive impact beginning in the second half of fiscal 2024;
- our ability to reduce operating costs and non-essential expenditures;
- our ability to meet loan agreement quarterly covenant requirements;
- our ability to collect in a timely manner a material amount of receivables;
- our cash flow requirements;
- our belief that we have sufficient liquidity to fund operations for the next 12 months through cash from operations, borrowing availability under our credit facility, financing, and the collection of accounts receivable;
- the timing and amount of revenue under a multi-year contract awarded by the European Commission to our joint venture with Campoverde Srl;
- our ability to obtain additional grants or bid awards internationally;
- the manner in which applicable governmental entities are required to spend funding to remediate various sites containing environmental hazards;
- our ability to develop and/or improve new and existing technologies in the conduct of operations;
- uncertainties related to our new PFAS destruction technology process, including market acceptance of its superiority to currently available treatment options, expenditures associated with scalability, and our ability to advance operations at our pilot PFAS destruction unit and accept commercial quantities of waste for destruction by mid-2025;
- our ability to fund remediation expenditures for sites from funds generated internally;

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- the need to use internally generated funds for purposes not presently anticipated;
- discovery of additional contamination or expanded contamination at any of the sites or facilities leased or owned by us or our subsidiaries which would result in a material increase in remediation expenditures;
- delays at our third-party disposal site can extend collection of our receivables greater than twelve months;
- a change in regulations reducing or even eliminating existing requirements to obtain permits for treatment, storage, and disposal (TSD) activities or licensing to handle low-level radioactive materials;
- terminations of contracts with government agencies or subcontracts involving government agencies, or reduction in amount of waste delivered to the Company under the contracts or subcontracts;
- changes in the scope of work relating to existing contracts;
- failure of our Italian joint venture partner to meet its performance obligations under the terms of the European Commission bid award;
- compliance with environmental regulations;
- our ability to obtain procurement contracts from the Department of Energy (“DOE”) and other government agencies;
- delays in waste shipments and contract awards;
- the risk that disposal expense accrual could prove to be inadequate in the event the waste requires re-treatment;
- potential effect of being a “Potentially Responsible Party,” or PRP, as such term is defined in 40 CFR § 304.12; and
- potential violations of environmental laws and attendant remediation at our facilities.
- inability to raise capital on commercially reasonable terms; and
- inability of the Company to maintain the listing of its common stock on The Nasdaq Capital Market.

The foregoing list sets forth many, but not all, of the factors that could impact our ability to achieve results described in any forward-looking statements. Investors should understand that it is not possible to predict or identify all such factors and should not consider this list to be a complete statement of all potential risks and uncertainties.

Moreover, new risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus and any related free-writing prospectus, and in the documents incorporated by reference into this prospectus. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

You should read this prospectus and the documents that we incorporate by reference herein with the understanding that our actual future results may be materially different from what we currently expect. You should assume that the information appearing in this prospectus and any document incorporated by reference herein is accurate as of its date only. Because the risks referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors may arise. In addition, we cannot predict the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus and any document incorporated herein by reference, and particularly our forward-looking statements, by these cautionary statements.

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PROSPECTUS SUMMARY

The following summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading "Risk Factors" contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Our Company and Business

We are an environmental services and environmental technology know-how company providing waste treatment, processing, and disposal services for nuclear, low-level radioactive, mixed, hazardous, and non-hazardous waste, primarily through four treatment and storage facilities that are licensed by the Nuclear Regulatory Commission (or state equivalent agency) and permitted by the U.S. Environmental Protection Agency ("EPA") or state-equivalent agency. We also conduct research and development ("R&D") activities to identify, develop and implement innovative waste processing techniques for problematic waste streams, as well as provide technical services and on-site waste management services to commercial and governmental customers.

Headquartered in Atlanta, Georgia, we provide services across the United States and internationally to research institutions, commercial companies, public utilities, and governmental agencies (domestic and foreign), including the U.S. Department of Energy ("DOE") and U.S. Department of Defense ("DOD"). The distribution channels for our services are through direct sales to customers or via intermediaries.

Our business is conducted through two operating segments, treatment and services, which contributed approximately 48.5% and 51.5%, respectively, to our total revenue in 2023. Historically, we have focused our business strategy in the treatment segment on upgrading our treatment facilities to increase efficiency and modernize and expand treatment capabilities to meet the changing markets associated with the waste management industry. Within our services segment, we continue to revitalize and expand our business development programs to further increase competitive procurement effectiveness and broaden the market penetration within both the commercial and government sectors. The Company also remains focused on expansion into both commercial and international markets to supplement government spending in the United States, from which a significant portion of the Company's revenue is derived. Inherent in our strategy is the development of new services, new customers, and increased market share in our current markets.

For a description of our business, financial condition, results of operations and other important information regarding Perma-Fix, we refer you to our filings with the SEC incorporated by reference into this prospectus. For instructions on how to find copies of these documents, see "Where You Can Find More Information." More information about us is also available through our website at www.perma-fix.com. The information on our website is not incorporated by reference into this prospectus or any accompanying prospectus supplement (except for SEC reports that are expressly incorporated by reference herein).

Corporate Information

We are a Delaware corporation incorporated in December 1990. Our principal executive offices are located at 8302 Dunwoody Place, Suite 250, Atlanta, Georgia 30350, and our telephone number is (770) 587-9898. Our website address is www.perma-fix.com. The information on our website is not incorporated by reference into this prospectus and should not be considered to be a part of this prospectus. Our internet address is included in this prospectus supplement as an inactive textual reference only.

The Securities That May Be Offered

We may offer or sell common stock, preferred stock, debt securities, depositary shares, warrants, rights, purchase contracts, and units in one or more offerings and in any combination. The aggregate offering price of the securities we sell pursuant to this prospectus will not exceed \$100,000,000. Each time securities are offered with this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered and the net proceeds we expect to receive from that sale.

The securities may be sold to or through underwriters, dealers or agents or directly to purchasers or as otherwise set forth in the section of this prospectus captioned "Plan of Distribution." Each prospectus supplement will set forth the names of any underwriters, dealers, agents or other entities involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

Common Stock

We may offer shares of our common stock, par value \$0.001 per share, either alone or underlying other registered securities convertible into our common stock. Holders of our common stock are entitled to receive dividends declared by our board of directors out of funds legally available for the payment of dividends, subject to rights, if any, of preferred shareholders. We have not paid dividends in the past and have no current plans to pay dividends. Each holder of common stock is entitled to one vote per share. The holders of common stock have no preemptive rights.

Preferred Stock

Our board of directors has the authority, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions, in each case without further vote or action by our shareholders. Each series of preferred stock offered by us will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or winding up, voting rights and rights to convert into common stock.

Debt Securities

We may offer secured or unsecured obligations in the form of one or more series of senior or subordinated debt. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the "debt securities." The subordinated debt securities generally will be entitled to payment only after payment of our senior debt. Senior debt generally includes all debt for money borrowed by us, except debt that is stated in the instrument governing the terms of that debt to be not senior to, or to have the same rank in right of payment as, or to be expressly junior to, the subordinated debt securities. We may issue debt securities that are convertible into shares of our common stock.

The debt securities will be issued under an indenture between us and a trustee to be identified in an accompanying prospectus supplement. We have summarized

the general features of the debt securities to be governed by the indenture in this prospectus and the form of indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part. We encourage you to read the indenture.

Depositary Shares

We may offer depositary shares evidenced by depositary receipts, with each depositary share representing a fractional interest in a share of a particular series of preferred stock issued and deposited with a depositary to be designated by us. Each series of depositary shares or depositary receipts offered by us will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or winding up, voting rights and rights to convert into common stock.

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Warrants

We may offer warrants for the purchase of common stock, preferred stock, debt securities or depositary shares. We may offer warrants independently or together with other securities.

Rights

We may offer rights to purchase our common stock. These rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the securityholder receiving the subscription rights in such offering.

Purchase Contracts

We may offer purchase contracts, including contracts obligating holders or us to purchase from the other a specific or variable number of securities at a future date or dates.

Units

We may offer units comprised of one or more of the other classes of securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit.

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RISK FACTORS

Investment in any securities offered pursuant to this prospectus involves substantial risks. Before you decide whether to purchase any of our securities, you should carefully consider the specific risks discussed in, 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 most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, 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. For more information, please see “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.” These risks could materially and adversely affect our business, results of operations and financial condition and could result in a partial or complete loss of your investment.

USE OF PROCEEDS

We maintain broad discretion over the use of proceeds from the sale of securities pursuant to this prospectus. Unless we specify otherwise in an accompanying prospectus supplement, we intend to use the net proceeds from the sale of securities by us for general corporate purposes, which may include, but is not limited to, working capital, repayment of indebtedness, capital expenditures, research and development expenditures, and acquisitions of new technologies or businesses, subject in all respects to the consent of our secured creditor. The precise amount, use and timing of the application of such proceeds will depend upon our funding requirements and the availability and cost of other capital. Any allocation of the net proceeds of an offering of securities to a specific purpose will be determined at the time of such offering and will be described in the accompanying supplement to this prospectus.

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DESCRIPTION OF SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If indicated in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include information in the prospectus supplement, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed. This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF COMMON STOCK

General

The following description summarizes some of the terms of our Restated Certificate of Incorporation, as amended (the “Certificate of Incorporation”) and our Second Amended and Restated By-Laws, as amended (the “Bylaws”), and of the General Corporation Law of the State of Delaware (the “DGCL”). This description is summarized from, and qualified in its entirety by reference to, our Certificate of Incorporation and Bylaws, each of which has been publicly filed with the SEC, as well as the relevant provisions of the DGCL.

Capital Stock

Our Certificate of Incorporation authorizes us to issue up to 30,000,000 shares of common stock, par value \$0.001 per share. As of November 21, 2024, there were

15,847,237 shares of our common stock outstanding.

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of common stock possess all voting power for the election of our directors and all other matters requiring stockholder action. Holders of common stock are entitled to one vote per share on matters to be voted on by stockholders.

Dividends

Common stockholders are entitled to receive dividends declared by the board of directors out of funds legally available for the payment of dividends, subject to the rights, if any, of preferred stockholders. However, we have never paid a dividend and we do not anticipate paying a dividend in the foreseeable future. Our current secured credit facility prohibits us from paying cash dividends on our common stock without prior approval from our lender.

Liquidation

Upon any liquidation, dissolution or winding up of our business, the holders of common stock are entitled to share equally in all assets available for distribution after payment of all liabilities and provision for liquidation preference of shares of preferred stock then outstanding.

Preemptive or Other Rights

The holders of common stock have no preemptive rights and no rights to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock. All outstanding shares of common stock are fully paid and nonassessable.

Options and Other Equity Awards

Our Certificate of Incorporation authorizes us to issue shares of common stock and options, rights, and warrants relating to the common stock for the consideration and on the terms and conditions established by our board of directors in its sole discretion, whether in connection with acquisitions or otherwise. As of November 21, 2024, we had (i) 1,000,900 shares of common stock issuable under outstanding options granted pursuant to various incentive stock option plans of the Company, and (ii) an additional 61,538 shares available for issuance pursuant to outstanding warrants.

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Antitakeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

We are a Delaware corporation governed by the General Corporation Law of Delaware, or the DGCL, including the provisions of Section 203 of the DGCL, an anti-takeover law. In general, Section 203 prohibits a Delaware public corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. As a result of Section 203, potential acquirers may be discouraged from attempting to effect acquisition transactions with us, thereby possibly depriving our security holders of certain opportunities to sell, or otherwise dispose of, such securities at above-market prices pursuant to such transactions. Further, certain of our option plans provide for the immediate acceleration of, and removal of restrictions from, options and other awards under such plans upon a “change of control” (as defined in the respective plans). Such provisions may also have the result of discouraging acquisition of us.

As of November 21, 2024, out of 30,000,000 shares of common stock authorized, we had 15,847,237 shares of common stock outstanding and 7,642 shares of treasury stock. In addition, at November 21, 2024, we had outstanding options to purchase 1,000,900 shares of our common stock at exercise prices ranging from \$3.15 to \$10.20 per share, and outstanding warrants to purchase 61,538 shares of our common stock at an exercise price of \$12.19 per share. Assuming the issuance of the common stock underlying such outstanding options and warrants, as of November 21, 2024, we had available for future issuance 13,090,325 shares of authorized and unissued common stock, including 897,934 shares of common stock available for issuance under our various incentive stock option plans, and 2,000,000 shares of our preferred stock. Future sales of authorized and unissued shares could be used by our management to make it more difficult for, and thereby discourage, an attempt to acquire control of us.

Requirements for Advance Notification of Stockholder Meetings, Nominations and Proposals

Our Certificate of Incorporation provides that special meetings of the stockholders may be called only by either the Chairman of the Board, if one has been elected, or the Chief Executive Officer, and shall be called by either such officer or the Secretary at the request in writing of a majority of the Board of Directors, but such special meetings may not be called by any other person or persons. In addition, any stockholder who wishes to bring business before an annual meeting or nominate directors must comply with the requirements set forth in our Bylaws. These provisions may have the effect of deferring, delaying or discouraging hostile takeovers or changes in control or management of our company.

No Cumulative Voting

The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation’s certificate of incorporation provides otherwise. Our Certificate of Incorporation does not provide for cumulative voting.

Transfer Agent and Registrar

The transfer agent and registrar for the common stock is Continental Stock Transfer & Trust Company, 1 State Street, 30th Floor, New York, New York 10004-1561.

Exchange Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol “PESI.”

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DESCRIPTION OF PREFERRED STOCK

We are authorized to issue 2,000,000 shares of preferred stock, par value \$0.001 per share. Our board of directors is authorized, subject to limitations prescribed by law, to provide for the issuance of shares of preferred stock in one or more series, and with respect to each series, to establish the number of shares to be included in each such series, and to fix the voting powers (if any), designations, powers, preferences, and relative, participating, optional or other special rights, if any, of the shares of each such series, and any qualifications, limitations or restrictions thereof. The powers (including voting powers), preferences, and relative, participating, optional and other special rights of each series of preferred stock and the qualifications, limitations or restrictions thereof, if any, may differ from those of any other series at any time outstanding. As of November 21, 2024, no shares of preferred stock are outstanding.

The authorization of undesignated preferred stock in our Certificate of Incorporation will make it possible for our board of directors to issue preferred stock with super voting, special approval, dividend or other rights or preferences on a discriminatory basis that could impede the success of any attempt to acquire us. These and other provisions may have the effect of deferring, delaying or discouraging hostile takeovers, or changes in control or management of our company.

DESCRIPTION OF THE DEBT SECURITIES

We may issue debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms summarized below will apply generally to any debt securities that we may offer under this prospectus, the particular terms of any debt securities that we may offer will be described in more detail in the applicable prospectus supplement or officer's certificate. The terms of any debt securities offered under a prospectus supplement or officer's certificate may differ from the terms described below. Unless the context requires otherwise, references to the indenture also refer to any supplemental indentures or officer's certificates that specify the terms of a particular series of debt securities.

We will issue the debt securities under the indenture that we will enter into with the trustee named in the indenture. The indenture will be qualified under the Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"). We have filed the form of indenture as an exhibit to the registration statement of which this prospectus is a part, and supplemental indentures, officer's certificates and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The following summary of material provisions of the debt securities and the indenture is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. You are urged to read the applicable prospectus supplements or officer's certificates and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete indenture that contains the terms of the debt securities.

General

The indenture does not limit the amount of debt securities that the Company may issue and it provides that the Company may issue debt securities up to the principal amount that the Company may authorize and may be in any currency or currency unit that the Company may designate. Except for the limitations on merger, consolidation and sale of all or substantially all of the Company assets contained in the indenture, the terms of the indenture do not contain any covenants or other provisions designed to give holders of any debt securities protection against changes in the Company's operations, financial condition or transactions involving the Company.

The Company may issue the debt securities issued under the indenture as "discount securities," which means they may be sold at a discount below their stated principal amount. These debt securities, as well as other debt securities that are not issued at a discount, may be issued with "original issue discount," or OID, for U.S. federal income tax purposes because of interest payment and other characteristics or terms of the debt securities. Material U.S. federal income tax considerations applicable to debt securities issued with OID will be described in more detail in any applicable prospectus supplement or officer's certificate.

The applicable prospectus supplement or officer's certificate will describe the terms of the series of debt securities being offered, including:

- the title of the series of debt securities;
- the forms of the series of debt securities;
- the price or prices (expressed as a percentage of the principal amount thereof) at which the series of debt securities will be issued;
- any limit upon the aggregate principal amount that may be issued;
- the maturity date or dates;
- the rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such rate or rates (including, but not limited to, any commodity, commodity index, stock exchange index or financial index) at which the series of debt securities shall bear interest, if any, the date or dates from which such interest, if any, shall accrue, the date or dates on which such interest, if any, shall commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where the principal of, premium and interest, if any, on the series of debt securities shall be payable, where the series of debt securities may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the series of debt securities may be served, and the method of such payment, if by wire transfer, mail or other means;

- if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which the series of debt securities may be redeemed, in whole or in part, at the option of the Company;
- the obligation, if any, of the Company to redeem or purchase the series of debt securities pursuant to any sinking fund or analogous provisions and the period or periods within which, the price or prices at which and the terms and conditions upon which series of debt securities shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the dates, if any, on which and the price or prices at which the series of debt securities will be repurchased by the Company at the option of the holders thereof and other detailed terms and provisions of such repurchase obligations;
- the denominations in which the series of debt securities shall be issuable, if other than minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof;
- if other than the principal amount thereof, the portion of the principal amount of the series of debt securities that shall be payable upon declaration of acceleration of the maturity thereof;
- the designation of the currency, currencies or currency units in which payment of the principal of, premium and interest, if any, on the series of debt securities will be made if other than U.S. dollars;
- any addition to or change in the events of default under the indenture which applies to any series of debt securities and any change in the right of the trustee or the requisite Holders of such debt securities to declare the principal amount thereof due and payable;
- any addition to or change in the covenants set forth under the indenture which applies to series of debt securities;
- any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to series of debt securities if other than those appointed in the indenture the applicability of any guarantees;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities rank as senior debt, senior subordinated debt, subordinated debt or any combination thereof, and the terms of any subordination;
- The Company's right, if any, to defer payment of interest and the maximum length of any such deferral period;
- whether the debt securities of the series shall be issued in whole or in part in the form of a global security or securities; the terms and conditions, if any, upon which such global security or securities may be exchanged in whole or in part for other individual securities; and the depository for such global security or securities; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, any other additions or changes in the provisions of the indenture (which may modify or delete any provision of the indenture insofar as it applies to such series), and any terms that may be required by the Company or advisable under applicable laws or regulations.

Conversion or Exchange Rights

The applicable prospectus supplement or officer's certificate may set forth the terms on which a series of debt securities may be convertible into or exchangeable for the Company's common stock or its other securities. The applicable prospectus supplement or officer's certificate may include provisions as to settlement upon conversion or exchange and whether conversion or exchange is mandatory, at the option of the holder or at the Company's option. The applicable prospectus supplement or officer's certificate may include provisions pursuant to which the number of shares of the Company's common stock or the Company's other securities that the holders of the series of debt securities receive would be subject to adjustment.

Events of Default under the Indenture

Unless otherwise provided in the prospectus supplement or officer's certificate applicable to a particular series of debt securities, the following are events of default under the indenture with respect to any series of debt securities that the Company may issue:

- if the Company fails to pay any installment of interest on such series of debt securities, as and when the same shall become due and payable, and such default continues for a period of 90 days; provided, however, that a valid extension of an interest payment period by the Company in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of interest for this purpose;
- if the Company fails to pay the principal of, or premium, if any, on such series of debt securities as and when the same shall become due and payable whether at maturity, upon redemption, by declaration or otherwise, or in any payment required by any sinking or analogous fund established with respect to such series; provided, however, that a valid extension of the maturity of such debt securities in accordance with the terms of any indenture supplemental thereto shall not constitute a default in the payment of principal or premium, if any;
- if the Company fails to observe or perform any other covenant or agreement contained in the debt securities of such series or the indenture, other than a covenant specifically relating to another series of debt securities, and such failure continues for 90 days after the Company receives written notice of such failure, requiring the same to be remedied and stating that such is a notice of default thereunder, from the trustee or holders of not less than a majority in aggregate principal amount of the outstanding debt securities of the applicable series; and
- if specified events of bankruptcy, insolvency or reorganization occur.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to the Company in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, of such series of debt securities due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to the Company, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences (including acceleration described in the preceding paragraph), except that such waivers of defaults or events of default regarding payment of principal, premium, if any, or interest, require that the Company shall have paid or set aside with the trustee sufficient funds to pay all amounts then due and payable otherwise then due and payable otherwise then by acceleration. Any waiver shall cure the default or event of default.

Subject to the terms of the indenture, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that the trustee may refuse to follow any direction that conflicts with law or the indenture that the trustee determines may be unduly prejudicial to the rights of other holders of the debt securities of any series or that may involve the trustee in personal liability.

No holder of the debt securities of any series will have the right to institute a proceeding under the indenture or to appoint a receiver or trustee, or to seek other remedies unless:

- the holder has given written notice to the trustee of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request for the trustee to initiate such action or proceeding;
- such holders have offered to the trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred by the trustee in compliance with the request;
- the trustee does not comply with the request within 60 days after receipt of the request and the offer and, if requested, the provision of indemnity; and
- during such 60-day period the holders of a majority in aggregate principal amount of the outstanding debt securities of that series do not give the trustee a direction inconsistent with the request.

No holder of the debt securities of any series may use the indenture to prejudice the rights of another holder of the debt securities of such series or to obtain a preference or priority over another holder of the debt securities of such series.

On an annual basis, the Company will provide statements to the trustee regarding its compliance with specified covenants in the indenture.

Modification of Indenture; Waiver

Unless otherwise provided in the prospectus supplement or officer's certificate applicable to a particular series of debt securities, the Company and the trustee may change an indenture without the consent of any holders with respect to specific matters:

- to cure any ambiguity, defect or inconsistency in the indenture or in the debt securities of any series;
- to provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- to provide for the assumption of the Company's obligations to the holders of the debt securities of any series by a successor to the Company;
- to make any change that would provide any additional rights or benefits to the holders of the debt securities of any series or that does not adversely affect the legal rights hereunder of any holder;
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act ("TIA");
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture;
- to add guarantees with respect to the debt securities of any series or to provide security for the debt securities of any series; or
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee with respect to the debt securities of one or more series and to add to or change any of the provisions of the indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one trustee.

In addition, under the indenture, the rights of holders of a series of debt securities may be changed by the Company and the trustee with the written consent of the

holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, unless otherwise provided in the prospectus supplement or officer's certificate applicable to a particular series of debt securities, the Company and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

- reduce the principal amount or change the fixed maturity of any debt securities of any series or alter or waive any of the provisions with respect to the redemption or repurchase of the debt securities of any series;
- reduce the rate (or alter the method of computation) of or extend the time for payment of interest, including default interest, on any debt securities of any series;
- waive a default or event of default in the payment of principal of or premium, if any, or interest on the debt securities of any series, except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of any series and a waiver of the payment default that resulted from such acceleration;
- make the principal of or premium, if any or interest on any debt securities of any series payable in currency other than that stated in the debt securities of any series;
- make any change in the provisions of the indenture relating to waivers of past defaults or the rights of holders of the debt securities of any series to receive payments of principal of or premium, interest, if any, on the debt securities of any series and to institute suit for the enforcement of any such payments;
- make any change in the foregoing amendment and waiver provisions; or
- reduce the percentage in principal amount of any debt securities of any series, the consent of the holders of which is required for any of the foregoing modifications or otherwise necessary to modify or amend the indenture or to waive any past defaults.

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Discharge

The indenture provides that the Company can elect to be discharged from its obligations with respect to one or more series of debt securities that shall become due and payable within one year or are to be called for redemption within one year, including obligations to:

- provide for payment;
- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- pay principal of and premium and interest on any debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the trustee;
- compensate and indemnify the trustee; and
- appoint any successor trustee.

In order to exercise its rights to be discharged, the Company must irrevocably deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series when payments are due on the date of maturity or the date fixed for redemption.

Form, Exchange and Transfer

The Company will issue the debt securities of each series only in fully registered form without coupons and, unless otherwise provided in the applicable prospectus supplement or officer's certificate, in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof. The indenture provides that the Company may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company ("DTC") or another depository named by the Company and identified in the applicable prospectus supplement or officer's certificate with respect to that series. To the extent the debt securities of a series are issued in global form and as book-entry, a description of terms relating to any book-entry securities will be set forth in the applicable prospectus supplement or officer's certificate.

At the option of the holder, subject to the terms of the indenture and the limitations applicable to global securities described in the applicable prospectus supplement or officer's certificate, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indenture and the limitations applicable to global securities set forth in the applicable prospectus supplement or officer's certificate, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by the Company or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by the Company for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, the Company will impose no service charge for any registration of transfer or exchange, but the Company may require payment of any taxes or other governmental charges.

The applicable prospectus supplement or officer's certificate will name the security registrar, and any transfer agent in addition to the security registrar, that the Company initially designates for any debt securities. The Company may, at any time, designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that the Company will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If the Company elects to redeem the debt securities of any series, the Company will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange of any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities the Company is redeeming in part.

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Information Concerning the Trustee

The debt securities will be issued under an indenture between us and a trustee to be named in the indenture. The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indenture at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless otherwise indicated in the applicable prospectus supplement or officer's certificate, the Company will make payment of the interest on any debt securities on

any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

The Company will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by it, except that unless otherwise indicated in the applicable prospectus supplement or officer's certificate, the Company will make interest payments by check that it will mail to the holder or by wire transfer to certain holders. Unless otherwise indicated in the applicable prospectus supplement or officer's certificate, the Company will designate the corporate trust office of the trustee as its sole paying agent for payments with respect to debt securities of each series. The applicable prospectus supplement or officer's certificate will name any other paying agents that the Company initially designates for the debt securities of a particular series. The Company will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money the Company pays to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to the Company, and the holder of the debt security thereafter may look only to the Company for payment thereof.

Governing Law

The indenture and the debt securities, and any claim, controversy or dispute arising under or related to the indenture or the debt securities, will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

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DESCRIPTION OF DEPOSITARY SHARES

General

We may, at our option, elect to offer fractional shares rather than full shares of the preferred stock of a series. In the event that we determine to do so, we will issue receipts for depositary shares, each of which will represent a fraction (to be set forth in the prospectus supplement relating to a particular series of preferred stock) of a share of a particular series of preferred stock as more fully described below.

The shares of any series of preferred stock represented by depositary shares will be deposited under one or more deposit agreements among us, a depositary to be named in the applicable prospectus supplement, and the holders from time to time of depositary receipts issued thereunder. Subject to the terms of the applicable deposit agreement, each holder of a depositary share will be entitled, in proportion to the applicable fraction of a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented thereby (including, as applicable, dividend, voting, redemption, subscription and liquidation rights).

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Depositary receipts will be distributed to those persons purchasing the fractional shares of the related series of preferred stock.

The following description sets forth certain general terms and provisions of the depositary shares to which any prospectus supplement may relate. The particular terms of the depositary shares to which any prospectus supplement may relate and the extent, if any, to which such general provisions may apply to the depositary shares so offered will be described in the applicable prospectus supplement. To the extent that any particular terms of the depositary shares or the deposit agreement described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement relating to such deposited shares. The forms of deposit agreement and depositary receipt will be filed as exhibits to the documents incorporated or deemed to be incorporated by reference into this prospectus.

The following summary of certain provisions of the depositary shares and deposit agreement does not purport to be complete and is subject to, and is qualified in its entirety by express reference to, all the provisions of the deposit agreement and the applicable prospectus supplement, including the definitions.

Immediately following our issuance of shares of a series of preferred stock that will be offered as fractional shares, we will deposit the shares with the depositary, which will then issue and deliver the depositary receipts to the purchasers thereof. Depositary receipts will only be issued evidencing whole depositary shares. A depositary receipt may evidence any number of whole depositary shares.

Pending the preparation of definitive depositary receipts, the depositary may, upon our written order, issue temporary depositary receipts substantially identical to (and entitling the holders thereof to all the rights pertaining to) the definitive depositary receipts but not in definitive form. Definitive depositary receipts will be prepared thereafter without unreasonable delay, and such temporary depositary receipts will be exchangeable for definitive depositary receipts at our expense.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions received in respect of the related series of preferred stock to the record holders of depositary shares relating to the series of preferred stock in proportion to the number of the depositary shares owned by the holders.

In the event of a distribution other than in cash, the depositary will distribute property received by it to the record holders of depositary shares entitled thereto in proportion to the number of depositary shares owned by the holders, unless the depositary determines that the distribution cannot be made proportionately among the holders or that it is not feasible to make the distributions, in which case the depositary may, with our approval, adopt any method as it deems equitable and practicable for the purpose of effecting the distribution, including the sale (at public or private sale) of the securities or property thus received, or any part thereof, at the place or places and upon those terms as it may deem proper.

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The amount distributed in any of the foregoing cases will be reduced by any amounts required to be withheld by us or the depositary on account of taxes or other governmental charges.

Redemption of Depositary Shares

If any series of the preferred stock underlying the depositary shares is subject to redemption, the depositary shares will be redeemed from the proceeds received by the depositary resulting from any redemption, in whole or in part, of the series of the preferred stock held by the depositary. The redemption price per depositary share will be equal to the applicable fraction of the redemption price per share payable with respect to the series of the preferred stock. If we redeem shares of a series of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing the shares of preferred stock so redeemed. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or substantially equivalent method determined by the depositary.

After the date fixed for redemption, the depositary shares so called for redemption will no longer be deemed to be outstanding and all rights of the holders of the depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon such redemption, upon surrender to the depositary of the depositary receipts evidencing the depositary shares. Any funds deposited by us with the depositary for

any depositary shares that the holders thereof fail to redeem will be returned to us after a period of two years from the date the funds are so deposited.

Voting the Underlying Preferred Stock

Upon receipt of notice of any meeting at which the holders of any series of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary shares relating to the series of preferred stock. Each record holder of the depositary shares on the record date (which will be the same date as the record date for the related series of preferred stock) will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of the series of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote or cause to be voted the number of shares of preferred stock represented by the depositary shares in accordance with the instructions, provided the depositary receives the instructions sufficiently in advance of the meeting to enable it to so vote or cause to be voted the shares of preferred stock, and we will agree to take all reasonable action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will abstain from voting shares of the preferred stock to the extent it does not receive specific instructions from the holders of depositary shares representing the preferred stock.

Withdrawal of Stock

Upon surrender of the depositary receipts at the corporate trust office of the depositary and upon payment of the taxes, charges and fees provided for in the deposit agreement and subject to the terms thereof, the holder of the depositary shares evidenced thereby will be entitled to delivery at such office, to or upon his or her order, of the number of whole shares of the related series of preferred stock and any money or other property, if any, represented by the depositary shares. Holders of depositary shares will be entitled to receive whole shares of the related series of preferred stock, but holders of the whole shares of preferred stock will not thereafter be entitled to deposit the shares of preferred stock with the depositary or to receive depositary shares therefor. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of the related series of preferred stock to be withdrawn, the depositary will deliver to the holder or upon his or her order at the same time a new depositary receipt evidencing the excess number of depositary shares.

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Amendment and Termination of a Deposit Agreement

The form of depositary receipt evidencing the depositary shares of any series and any provision of the applicable deposit agreement may at any time and from time to time be amended by agreement between us and the depositary. However, any amendment that materially adversely alters the rights of the holders of depositary shares of any series will not be effective unless the amendment has been approved by the holders of at least a majority of the depositary shares of the series then outstanding. Every holder of a depositary receipt at the time the amendment becomes effective will be deemed, by continuing to hold the depositary receipt, to be bound by the deposit agreement as so amended. Notwithstanding the foregoing, in no event may any amendment impair the right of any holder of any depositary shares, upon surrender of the depositary receipts evidencing the depositary shares and subject to any conditions specified in the deposit agreement, to receive shares of the related series of preferred stock and any money or other property represented thereby, except in order to comply with mandatory provisions of applicable law. The deposit agreement may be terminated by us at any time upon not less than 60 days prior written notice to the depositary, in which case, on a date that is not later than 30 days after the date of the notice, the depositary shall deliver or make available for delivery to holders of depositary shares, upon surrender of the depositary receipts evidencing the depositary shares, the number of whole or fractional shares of the related series of preferred stock as are represented by the depositary shares. The deposit agreement shall automatically terminate after all outstanding depositary shares have been redeemed or there has been a final distribution in respect of the related series of preferred stock in connection with any liquidation, dissolution or winding up of us and the distribution has been distributed to the holders of depositary shares.

Charges of Depositary

We will pay all transfer and other taxes and the governmental charges arising solely from the existence of the depositary arrangements. We will pay the charges of the depositary, including charges in connection with the initial deposit of the related series of preferred stock and the initial issuance of the depositary shares and all withdrawals of shares of the related series of preferred stock, except that holders of depositary shares will pay transfer and other taxes and governmental charges and any other charges as are expressly provided in the deposit agreement to be for their accounts.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us written notice of its election to do so, and we may at any time remove the depositary. Any resignation or removal will take effect upon the appointment of a successor depositary, which successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having a combined capital and surplus of at least \$50,000,000.

Miscellaneous

The depositary will forward to the holders of depositary shares all reports and communications from us that are delivered to the depositary and which we are required to furnish to the holders of the related preferred stock.

The depositary's corporate trust office will be identified in the applicable prospectus supplement. Unless otherwise set forth in the applicable prospectus supplement, the depositary will act as transfer agent and registrar for depositary receipts and if shares of a series of preferred stock are redeemable, the depositary will also act as redemption agent for the corresponding depositary receipts.

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DESCRIPTION OF THE WARRANTS

The following description of the terms of the warrants sets forth certain general terms and provisions of the warrants to which any prospectus supplement may relate. We may issue warrants for the purchase of common stock, preferred stock, debt securities or depositary shares. Warrants may be issued independently or together with common stock, preferred stock, debt securities or depositary shares offered by any prospectus supplement and may be attached to or separate from any such offered securities. Each series of warrants may be issued under a separate warrant agreement to be entered into between us and a bank or trust company, as warrant agent, and, if issued in such manner, the warrant agent will act solely as our agent in connection with the warrants and will not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of warrants. The following summary of certain provisions of the warrants does not purport to be complete and is subject to, and qualified in its entirety by reference to, the provisions of the warrant agreement that will be filed with the SEC in connection with the offering of such warrants.

Debt Warrants

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

- the title of such debt warrants;
- the offering price for such debt warrants, if any;
- the aggregate number of such debt warrants;

- the designation and terms of the debt securities purchasable upon exercise of such debt warrants;
- if applicable, the designation and terms of the debt securities with which such debt warrants are issued and the number of such debt warrants issued with each such debt security;
- if applicable, the date from and after which such debt warrants and any debt securities issued therewith will be separately transferable;
- the principal amount of debt securities purchasable upon exercise of a debt warrant and the price at which such principal amount of debt securities may be purchased upon exercise (which price may be payable in cash, securities or other property);
- the date on which the right to exercise such debt warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such debt warrants that may be exercised at any one time;
- whether the debt warrants represented by the debt warrant certificates or debt securities that may be issued upon exercise of the debt warrants will be issued in registered or bearer form;
- information with respect 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;
- the antidilution or adjustment provisions of such debt warrants, if any;
- the redemption or call provisions, if any, applicable to such debt warrants; and
- any additional terms of such debt warrants, including terms, procedures, and limitations relating to the exchange and exercise of such debt warrants.

Stock Warrants

The prospectus supplement relating to any particular issue of common stock warrants, preferred stock warrants or depositary share warrants will describe the terms of such warrants, including the following:

- the title of such warrants;
- the offering price for such warrants, if any;
- the exercise price for such warrants;
- the aggregate number of such warrants;
- the designation and terms of the offered securities purchasable upon exercise of such warrants;
- if applicable, the designation and terms of the offered securities with which such warrants are issued and the number of such warrants issued with each such offered security;
- if applicable, the date from and after which such warrants and any offered securities issued therewith will be separately transferable;
- the number of shares of common stock, preferred stock or depositary shares purchasable upon exercise of a warrant and the price at which such shares may be purchased upon exercise;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such 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;
- the antidilution provisions of such warrants, if any;
- the redemption or call provisions, if any, applicable to such warrants; and
- any additional terms of such warrants, including terms, procedures and limitations relating to the exchange and exercise of such warrants.

DESCRIPTION OF THE RIGHTS

We may issue rights to purchase our common stock. The rights may or may not be transferable by the persons purchasing or receiving the rights. In connection with any rights offering, we may enter into a standby underwriting 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. Each series of rights will be issued under a separate rights agent agreement to be entered into between us and one or more banks, trust companies or other financial institutions, as rights agent, that we will name in the applicable prospectus supplement. The rights agent will act solely as our agent in connection with the rights and will not assume any obligation or relationship of agency or trust for or with any holders of rights certificates or beneficial owners of rights.

The prospectus supplement relating to any rights that we offer will include specific terms relating to the offering, including, among other matters:

- the date of determining the security holders entitled to the rights distribution;
- the aggregate number of rights issued and the aggregate number of shares of common stock purchasable upon exercise of the rights;
- the exercise price;
- the conditions to completion of the rights offering;
- the date on which the right to exercise the rights will commence and the date on which the rights will expire; and
- any applicable federal income tax considerations.

Each right would entitle the holder of the rights to purchase for cash the principal amount of shares of common stock at the exercise price set forth in the applicable prospectus supplement. Rights may be exercised at any time up to the close of business on the expiration date for the rights provided in the applicable prospectus supplement. After the close of business on the expiration date, all unexercised rights will become void.

If less than all of the rights issued in any rights offering are exercised, we may offer any unsubscribed securities directly to persons other than our security holders, to or through agents, underwriters or dealers or through a combination of such methods, including pursuant to standby arrangements, as described in the applicable prospectus supplement.

DESCRIPTION OF THE PURCHASE CONTRACTS

We may issue, from time to time, purchase contracts, including contracts obligating holders to purchase from us and us to sell to the holders, a specified principal amount of debt securities, shares of common stock or preferred stock, depositary shares, government securities, or other securities that we may sell under this prospectus at a future date or dates. The consideration payable upon settlement of the purchase contracts may be fixed at the time the purchase contracts are issued or may be determined by a specific reference to a formula set forth in the purchase contracts. The purchase contracts may be issued separately or as part of units consisting of a purchase contract and other securities or obligations issued by us or third parties, including United States treasury securities, securing the holders' obligations to purchase the relevant securities under the

purchase contracts. The purchase contracts may require us to make periodic payments to the holders of the purchase contracts or units or vice versa, and the payments may be unsecured or prefunded on some basis. The purchase contracts may require holders to secure their obligations under the purchase contracts.

The prospectus supplement related to any particular purchase contracts will describe, among other things, the material terms of the purchase contracts and of the securities being sold pursuant to such purchase contracts, a discussion, if appropriate, of any special United States federal income tax considerations applicable to the purchase contracts and any material provisions governing the purchase contracts that differ from those described above. The description in the prospectus supplement will not necessarily be complete and will be qualified in its entirety by reference to the purchase contracts, and, if applicable, collateral arrangements and depositary arrangements, relating to the purchase contracts.

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DESCRIPTION OF THE UNITS

We may, from time to time, issue units comprised of one or more of certain other securities that may be offered under this prospectus, in any combination. Each unit may also include debt obligations of third parties, such as U.S. Treasury securities. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued 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.

Any prospectus supplement related to any particular units will describe, among other things:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units;
- if appropriate, any special United States federal income tax considerations applicable to the units; and
- any material provisions of the governing unit agreement that differ from those described above.

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PLAN OF DISTRIBUTION

We may sell the securities being offered by us in this prospectus in one or more of the following ways: through underwriters or dealers; in short or long transactions; directly to a limited number of purchasers or to a single purchaser; through agents, including via an at-the-market program; or through a combination of any of these methods of sale. The applicable prospectus supplement will describe the terms of the offering of the securities, including:

- the name or names of any underwriters, if, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or re-allowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed or traded.

We, and our agents, dealers, and underwriters, as applicable, may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

We may determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the underwriters' obligations, in the applicable prospectus supplement or amendment.

We may solicit directly offers to purchase securities. We may also designate agents from time to time to solicit offers to purchase securities. Any agent that we designate, who may be deemed to be an underwriter as such term is defined in the Securities Act, may then resell such securities to the public at varying prices to be determined by such agent at the time of resale.

We may engage in "at the market" offerings of our securities as defined in Rule 415(a)(4) under the Securities Act. An "at the market" offering is an offering of our common stock at other than a fixed price, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents. We shall name any underwriter or agent that the Company engages for an at the market offering in a post-effective amendment to the registration statement containing this prospectus. In the related prospectus supplement, we shall also describe any additional details of the Company's arrangement with such underwriter or agent, including commissions or fees paid or discounts offered by the Company, and whether such underwriter is acting as principal or agent.

If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. Only underwriters named in a prospectus supplement are underwriters of the securities offered by that prospectus supplement. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities, if any are purchased.

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We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price, with additional underwriting commissions or discounts, as may be set forth in a related prospectus supplement. The terms of any over-allotment option will be set forth in the prospectus supplement for those securities.

If we use a dealer in the sale of the securities being offered pursuant to this prospectus or any prospectus supplement, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The names of the dealers and the terms of

the transaction will be specified in a prospectus supplement.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement.

We may authorize agents or underwriters to solicit offers by institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

In connection with the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities, and any institutional investors or others that purchase securities directly for the purpose of resale or distribution, may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of the common stock by them may be deemed to be underwriting discounts and commissions under the Securities Act. No FINRA member firm may receive compensation in excess of that allowable under FINRA rules, including Rule 5110, in connection with the offering of the securities.

We may provide agents, underwriters and other purchasers with indemnification against particular civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents, underwriters or other purchasers may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

To facilitate the public offering of a series of securities, persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the market price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than have been sold to them by us. In exercising the over-allotment option granted to those persons. In addition, those persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to underwriters or dealers participating in any such offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

Unless otherwise specified in the applicable prospectus supplement, any common stock sold pursuant to a prospectus supplement will be eligible for trading as quoted on the Nasdaq Capital Market. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

In order to comply with the securities laws of some states, if applicable, the securities offered pursuant to this prospectus will be sold in those states only through registered or licensed brokers or dealers. In addition, in some states securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and complied with.

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LEGAL MATTERS

Legal matters in connection with the issuance and sale of the securities offered hereby will be passed upon for us by Steptoe & Johnson PLLC. Additional legal matters will be passed upon for any underwriters, dealers, or agents by counsel named in the applicable prospectus supplement.

EXPERTS

The audited financial statements incorporated by reference in this prospectus and elsewhere in the registration statement have been so incorporated by reference in reliance upon the report of Grant Thornton LLP, independent registered public accountants, upon the authority of said firm as experts in accounting and auditing.

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PERMA-FIX ENVIRONMENTAL SERVICES, INC.

Common Stock

PROSPECTUS SUPPLEMENT

Craig- Hallum
