

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 8-K  
CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported) June 30, 1998

PERMA-FIX ENVIRONMENTAL SERVICES, INC.

(Exact name of registrant as specified in its charter)

Delaware

1-11596

58-1954497

(State or other  
jurisdiction of  
incorporation)

(Commission File  
Number)

(IRS Employer  
Identification No.)

1940 N.W. 67th Place, Suite A, Gainesville, Florida

32653

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code (352) 373-4200

Not applicable

(Former name or former address, if changed since last report)

Item 5. Other Events.

Pursuant to the terms of a Private Securities Subscription Agreement ("Subscription Agreement"), effective as of June 30, 1998, between Perma-Fix Environmental Services, Inc. (the "Company") and RBB Bank Aktiengesellschaft, located in Graz, Austria ("RBB Bank"), the Company issued to RBB Bank 3,000 shares of newly created Series

10 Class J Convertible Preferred Stock, par value \$.001 per share ("Series 10 Preferred"), at a price of \$1,000 per share, for an aggregate sales price of \$3,000,000. The sale to RBB Bank was made in a private placement under Section 4(2) of the Securities Act of 1933, as amended (the "Act"), and/or Rule 506 of Regulation D under the Act. The Series 10 Preferred has a liquidation value equal to \$1,000 per outstanding share of Series 10 Preferred (the "Liquidation Value"), and has a liquidation preference over the Company's Common Stock, par value \$.001 per share ("Common Stock"), equal to the aggregate Liquidation Value for all of the then outstanding shares of Series 10 Preferred plus an amount equal to all unpaid dividends accrued thereon. The Series 10 Preferred accrues dividends on a cumulative basis at a rate of four percent (4%) per annum of the Liquidation Value ("Dividend Rate"), and is payable semi-annually when and as declared by the Board of Directors. No dividends or other distributions may be paid or declared or set aside for payment on the Company's Common Stock until all accrued and unpaid dividends on all outstanding shares of Series 10 Preferred have been paid or set aside for payment. Dividends may be paid, at the option of the Company, in the form of cash or Common Stock. If the Company pays dividends in Common Stock, such is payable in the number of shares of Common Stock equal to the product of (a) the quotient of (i) the Dividend Rate divided by (ii) the average of the closing bid quotation of the Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or if the Common Stock is not listed for trading on the NASDAQ but is listed for trading on a national securities exchange, the average closing bid price of the Common Stock as quoted on such national securities exchange, for the five (5) trading days immediately prior to the date the dividend is declared, times (b) a fraction, the numerator of which is the number of days elapsed during the period for which the dividend is to be paid, and the denominator of which is 365.

The holder of the Series 10 Preferred may convert into Common Stock any or all of the Series 10 Preferred on and after 180 days after June 30, 1998. The conversion price per outstanding share of Preferred Stock ("Conversion Price") is \$1.875; except that if the average of the closing bid price per share of Common Stock quoted on the NASDAQ (or the closing bid price of the Common Stock as quoted on the national securities exchange if the Common Stock is not listed for trading on the NASDAQ but is listed for trading on a national securities exchange) for the five (5) trading days immediately prior to the particular date on which the holder notified the Company of a conversion ("Conversion Date") is less than \$2.34, then the Conversion Price for that particular conversion shall be eighty percent (80%) of the average of the closing bid price of the Common Stock on the NASDAQ (or if the Common Stock is not listed for trading on the NASDAQ but is listed for trading on a national securities exchange then eighty percent (80%) of the average of the closing bid price of the Common Stock on the national securities exchange) for the five (5) trading

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days immediately prior to the particular Conversion Date. As of June 30, 1998, the closing price of Common Stock on the NASDAQ was \$1.875 per share.

As part of the sale of the Series 10 Preferred, the Company also issued to RBB Bank (a) a warrant entitling the holder to purchase up to an aggregate of 150,000 shares of Common Stock at an exercise price of \$2.50 per share of Common Stock expiring three (3) years after June 30, 1998 and (b) a warrant entitling the holder to purchase up to an aggregate of 200,000 shares of Common Stock at an exercise price of \$1.875 per share of Common Stock and expiring three

(3) years after June 30, 1998. Collectively, these warrants are referred to herein as the "RBB Warrants." The Common Stock issuable upon the conversion of the Series 10 Preferred and upon the exercise of the RBB Warrants is subject to certain registration rights pursuant to the Subscription Agreement.

The Company intends to utilize the proceeds received on the sale of Series 10 Preferred for working capital and/or to reduce the outstanding balance of its credit facilities, subject to the Company reborrowing under such credit facilities.

In addition to the 2,200,000 shares of Common Stock which have been reserved for issuance upon conversion of the Series 10 Preferred, and in payment of dividends accrued thereon and upon exercise of the RBB Warrants, RBB Bank may also be considered to be the beneficial owner of approximately 7,958,687 shares of the Company's Common Stock consisting of (a) 931,786 shares of Common Stock held directly by RBB Bank; (b) 4,051,335 shares of Common Stock issuable upon conversion of 6,500 shares of other series of convertible preferred stock previously issued by the Company to RBB Bank, subject to variation depending upon, among other things, the market price per share of Common Stock at the time of conversion and various terms and conditions of the preferred; (c) 319,316 shares of Common Stock which may be issued in payment of dividends accrued on such 6,500 shares of convertible preferred stock; and, (d) 2,656,250 shares of Common Stock that RBB Bank has the right to acquire upon exercise of various warrants previously issued by the Company to RBB Bank, consisting of (i) warrants entitling the holder to purchase up to an aggregate of 1,000,000 shares of Common Stock at an exercise price of \$2.00 per share of Common Stock; (ii) warrants entitling the holder to purchase up to an aggregate of 1,000,000 shares of Common Stock at an exercise price of \$3.50 per share of Common Stock; (iii) warrants entitling the holder to purchase up to an aggregate of 375,000 shares of Common Stock at an exercise price of \$1.875 per share of Common Stock; and, (iv) warrants entitling the holder to purchase up to an aggregate of 281,250 shares of Common Stock at an exercise price of \$2.125 per share of Common Stock. If RBB Bank were to obtain 10,158,687 shares of Common Stock through exercise of all of its warrants and conversion of all of its preferred stock into Common Stock it would hold approximately 47.9% of the outstanding Common Stock of the Company based upon 12,001,746 shares of Common Stock issued and outstanding as of July 17, 1998 (excluding 920,000 shares held as treasury stock). The foregoing estimate assumes that no other shares of Common Stock are issued by the Company, no other warrants or options

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granted by the Company and currently outstanding are exercised, the Company does not acquire additional shares of Common Stock as treasury stock, and RBB Bank does not dispose of any shares of Common Stock.

In connection with the placement of Series 10 Preferred to RBB Bank, the Company paid fees (excluding legal and accounting) of \$210,000 and issued to (a) Liviakis Financial Communications, Inc. ("Liviakis") for assistance with the placement of the Series 10 Preferred, warrants entitling the holder to purchase up to an aggregate of 1,875,000 shares of Common Stock, subject to certain anti-dilution provisions, at an exercise price of \$1.875 per share of Common Stock, which warrants may be exercised after January 15, 1999, and which expire after four (4) years; (b) Robert B. Prag, an executive officer of Liviakis for assistance with the placement of the Series 10 Preferred, warrants entitling the holder to purchase up to an aggregate of 625,000 shares of Common Stock, subject to certain anti-dilution provisions, at an exercise price of \$1.875 per share of Common Stock, which warrants may be exercised after

January 15, 1999, and which expire after four (4) years; (c) JW Genesis Financial Corporation for assistance with the placement of the Series 10 Preferred, warrants entitling the holder to purchase up to an aggregate of 150,000 shares of Common Stock, subject to certain anti-dilution provisions, at an exercise price of \$1.875 per share of Common Stock, which warrants expire after three (3) years; and (d) Fontenoy Investments for assistance with the placement of the Series 10 Preferred, warrants entitling the holder to purchase up to an aggregate of 350,000 shares of Common Stock, subject to certain anti-dilution provisions, at an exercise price of \$1.875 per share of Common Stock, which warrants expire after three (3) years. Under the terms of each warrant, the holder is entitled to certain registration rights with respect to the shares of Common Stock issuable on the exercise of each warrant.

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Item 7. Financial Statements and Exhibits.

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(c) Exhibits.

- 4.1 Private Securities Subscription Agreement, dated June 30, 1998, between the Company and RBB Bank Aktiengesellschaft.
- 4.2 Certificate of Designations of Series 10 Class J Convertible Preferred Stock, dated July 16, 1998.
- 4.3 Specimen copy of Certificate relating to the Series 10 Class J Convertible Preferred Stock.
- 4.4 Common Stock Purchase Warrant (\$2.50) dated June 30, 1998, between the Company and RBB Bank Aktiengesellschaft.
- 4.5 Common Stock Purchase Warrant (\$1.875) dated June 30, 1998, between the Company and RBB Bank Aktiengesellschaft.
- 4.6 Consulting Agreement dated effective June 30, 1998, between the Company and Liviakis Financial Communications, Inc.
- 4.7 Common Stock Purchase Warrant (\$1.875) effective June 30, 1998, between the Company and Liviakis Financial Communications, Inc.
- 4.8 Common Stock Purchase Warrant (\$1.875) effective June 30, 1998, between the Company and Robert B. Prag.

\* \* \* \* \*

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By: /s/ Richard T. Kelecy

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Richard T. Kelecy  
Chief Financial Officer

Date: July 17, 1998

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Common Stock Purchase Warrant  
(\$1.875) effective June 30, 1998,  
between the Company and Robert B.  
Prag.

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued



by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.

8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued

by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.



8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued



by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.

8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

\_\_\_\_\_

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued

by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.



8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

\_\_\_\_\_

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued



by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.

8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

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Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued

by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.



8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

\_\_\_\_\_

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued



by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.

8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

\_\_\_\_\_

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed

NEITHER THIS WARRANT NOR ANY SHARES OF COMMON STOCK ISSUABLE UPON THE EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR QUALIFIED UNDER APPLICABLE STATE SECURITIES LAWS. THIS WARRANT AND THE COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT MAY NOT BE OFFERED, SOLD, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AND QUALIFICATION IN EFFECT WITH RESPECT THERETO UNDER THE SECURITIES ACT AND UNDER ANY APPLICABLE STATE SECURITIES LAW OR AN OPINION OF COUNSEL THAT IS SATISFACTORY TO PERMA-FIX ENVIRONMENTAL SERVICES INC. THAT SUCH REGISTRATION AND QUALIFICATION IS NOT REQUIRED UNDER APPLICABLE FEDERAL AND STATE SECURITIES LAWS OR AN EXEMPTION THEREFROM.

NOTWITHSTANDING THE FOREGOING, THE SHARES OF COMMON STOCK ISSUABLE UPON EXERCISE OF THIS WARRANT ARE SUBJECT TO THE REGISTRATION RIGHTS SET FORTH HEREIN.

No. LFC: 6-30-98-2

COMMON STOCK PURCHASE WARRANT CERTIFICATE

Dated: June 30, 1998

Six Hundred Twenty-Five Thousand(625,000) Warrants

to Purchase Six Hundred Twenty-Five Thousand

(625,000)

Shares of Perma-Fix Environmental Services, Inc.

Common Stock, \$.001 Par Value Per Share

VOID AFTER 5:00 P.M., UNITED STATES EASTERN DAYLIGHT SAVINGS TIME

on

June 29, 2002

PERMA-FIX ENVIRONMENTAL SERVICES, INC., a Delaware corporation (the "Company"), hereby certifies that ROBERT B. PRAG, an individual (the "Warrant Holder" or "Holder"), for value received, is entitled to purchase from the Company at any time after January 15, 1999, until 5:00 p.m., Eastern Daylight Savings Time ("EST") on June 29, 2002 ("the Exercise Period"), up to an aggregate of six hundred twenty-five thousand (625,000) shares (the "Shares" or

"Warrant Shares") of the Company's common stock, par value \$.001 per share ("Common Stock"), at an exercise price equal to U. S. \$1.875 per share (the "Per Share Exercise Price").

1. Exercise of Warrant and Shareholder Approval.

1.1 In order to exercise this Common Stock Purchase Warrant Certificate ("Warrant" or "Warrant Certificate"), in whole or in part, during the Exercise Period, the Holder shall deliver to the Company this Warrant Certificate, with the attached Election to Purchase form duly executed and completed by the Holder and specifying the number of Warrant Shares which Holder is purchasing pursuant to the terms of this Warrant, at 1940 Northwest 67th Place, Gainesville, Florida 32606-1649, together with either:

(a) payment to the Company (in the form of cash or certified or bank cashier's check payable to the Company) in an amount equal to the Per Share Exercise Price multiplied by the number of Warrant Shares being purchased (the "Aggregate Exercise Price"), or

(b) Holder's written direction to the Company to retain as the Aggregate Exercise Price for the Warrant Shares being purchased that number of the Warrant Shares (rounded upward to next highest full Share) being purchased which have an aggregate value equal to the Aggregate Exercise Price. Such Warrant Shares shall be valued for such purposes at the highest closing price of the Company's Common Stock in the principal market in which the Company's Common Stock trade for a five day period consisting of the trading day preceding the date on which this Warrant and the Purchase Form are delivered to the Company plus the four preceding trading days.

As soon as practicable thereafter, but in any event within ten (10) business days after the Company's receipt of all of the above documents, the Company shall cause to be delivered to the Holder a certificate issued in the Holder's name evidencing (x) in the case payment of the exercise price pursuant to (a) above the full number of Warrant Shares as to which this Warrant was exercised by the Holder or (y) in the case of payment of the exercise price pursuant to (b) above the number of Warrant Shares remaining after subtracting from the full number of Warrant Shares as to which this Warrant was exercised by Holder that number of Warrant Shares which the Company is to retain pursuant to (b) above. Holder shall be considered to be the holder and owner of the Warrant Shares to be evidenced by such certificate as of the close of business on the date the Company received the notice of exercise accompanied by payment, as contemplated herein, without regarding to the date of actual issuance of the certificate representing such Shares.

All or less than all of the Warrant Shares represented by this Certificate may be exercised and, in case of the exercise of less than all, the Company, upon surrender hereof, will deliver to the Holder a new Warrant Certificate of like tenor and dated the date hereof entitling said Holder to purchase the number of Warrant Shares represented by this Warrant which have not been exercised and to receive the Registration Rights set forth in Section 8 below (to the extent such rights have not already been exercised) with respect to such Warrant Shares which have not been exercised.

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1.2 In connection with the transactions pursuant to which the Company is issuing this Warrant, the Company is also issuing (i) to RBB Bank Aktiengesellschaft ("RBB Bank") certain shares of a new series of Preferred Stock designated as Series 10 Class J Convertible Preferred Stock ("Preferred Stock"), which Preferred Stock is convertible into the Company's Common Stock pursuant to the terms thereof, and certain warrants to RBB Bank for the purchase by RBB Bank of up to 125,000 shares of Common Stock ("RBB Warrants") pursuant to the terms of that certain Private Securities Subscription Agreement, dated June 30, 1998 between the Company and RBB Bank ("RBB Subscription Agreement"), and (ii) a certain warrant to Robert B. Prag (collectively the "Prag Warrant") providing for the purchase of up to an aggregate of 625,000 shares of Common Stock pursuant to the terms of that certain Placement and Consulting Agreement, dated June 30, 1998 between the Corporation and the Holder ("Liviakis Consulting Agreement").

If (i) the aggregate number of shares of Common Stock issued

by the Company as a result of (a) conversion of the Preferred Stock, (b) payment of dividends accrued on the Preferred Stock, (c) exercise of the RBB Warrants (d) exercise of this Warrant and (e) exercise of the Prag Warrant exceeds 2,388,347 shares of Common Stock (which equals 19.9% of the outstanding shares of Common Stock of the Company as of the date of this Warrant) and (ii) RBB Bank has converted or elects to convert any of the then outstanding shares of Preferred Stock pursuant to the terms of the Preferred Stock at a Conversion Price (as defined in the terms of the Preferred Stock) less than \$1.875 (\$1.875 being the market value per share of Common Stock as quoted on the NASDAQ as of the close of business on June 30, 1998), other than if the Conversion Price is less than \$1.875 solely as a result of the anti-dilution provisions of the Preferred Stock, then, notwithstanding anything in this Warrant to the contrary, thereafter the Company shall not issue any shares of Common Stock as a result of the exercise of this Warrant unless and until the Company shall have obtained approval of its shareholders entitled to vote on the transactions referenced to in the RBB Subscription Agreement and the Liviakis Consulting Agreement pursuant to requirements of subparagraphs (25)(H)(i)d, (iv) and (v) of Rule 4310 of the NASDAQ Marketplace Rules ("Shareholder Approval").

If Shareholder Approval is required as set forth in the above paragraph, the Company shall take all practicable steps to obtain such Shareholder Approval within ninety (90) days of the event triggering the need for Shareholder Approval (the "90 Day Period"). The Holder shall, and the Company shall use its best efforts to cause its officers and directors to, vote all shares of Common Stock of the Company over which they have voting control in favor of such Shareholder Approval. If the Company is required to obtain such Shareholder Approval pursuant to the requirements of the above paragraph but is unable to obtain such Shareholder Approval within the 90 Day Period, then, the Company agrees that the Exercise Period shall be extended for that number of additional days equal to the number of days in the period of time beginning with the day after the expiration of the 90 Day Period and ending as of the day such Shareholder Approval is obtained.

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In addition, if the Company is required to obtain such Shareholder Approval within the 90 Day Period but is unable to obtain such Shareholder Approval within such 90 Day Period and thereafter the Holder notifies the Company in writing of its intention to exercise this Warrant for all or a portion of the Warrant Shares pursuant to the requirements of this Warrant ("Notification of Intention") before such Shareholder Approval is obtained, with such Notification of Intention specifying the exact number of Warrant Shares that the Holder intends to purchase ("Warrant Shares to be Purchased") pursuant to the requirements of this Warrant, then the Company shall have an additional sixty (60) days ("Additional 60 Days") from receipt by the Company from the Holder of such Notification of Intention. If the Company has not obtained the Shareholder Approval within the Additional 60 Days, then the Holder shall have the option to terminate this Warrant as to the Warrant Shares to be Purchased, and, in the event of such termination, the Company shall pay to the Holder an amount ("Payment Amount") determined by subtracting from (a) an amount determined by multiplying the fair market value (as defined below) per share of Common Stock by the number of Warrant Shares to be Purchased, (b) the Aggregate Exercise Price of the Warrant Shares to be Purchased. If the Holder elects to terminate this Warrant as

to the Warrant Shares to be Purchased for the Payment Amount pursuant to the terms of this paragraph ("Election"), the Holder shall deliver to the Company written notice ("Election Notice") of the Election, and the Company shall have fifteen (15) days from receipt of such Election Notice to pay the Payment Amount to the Holder either in cash or by delivering to the Holder the Company's promissory note payable to the order of the Holder in the principal amount of the Payment Amount. If the Company elects to pay the Payment Amount by delivery to the Holder such promissory note, such promissory note shall be in the principal amount of the Payment Amount and shall bear an annual rate of interest equal to the prime rate announced from time to time by the Chase Manhattan Bank plus 1%, with the principal payable in thirty-six (36) equal monthly installments plus accrued and unpaid interest, and the first monthly installment beginning the first full month after issuance of such promissory note. Such promissory note shall be in form reasonably satisfactory to the Holder. For the purpose of this paragraph, "fair market value" per share of the Company's Common Stock shall be the average closing price of a share of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation System ("NASDAQ"), or if the Common Stock is not listed on the NASDAQ but is listed for trading on a national securities exchange the average closing price of a share of Common Stock as reported on such national securities exchange, for the five (5) trading days immediately prior to the Company's receipt of the Election Notice from the Holder of the documents required by Section 1.1 hereof in connection with the exercise of the Warrant Shares to be Purchased. Notwithstanding anything herein to the contrary, this Warrant as to the Warrant Shares to be Purchased shall terminate in all respects as of the date of receipt by the Company of the Holder's Election Notice.

2. Exchange and Transfer. This Warrant Certificate, at any time prior to the exercise hereof, upon presentation and surrender to the Company, may be exchanged, alone or with other certificates of like tenor registered in the name of the same Holder, for another Certificate of like tenor in the name of such Holder exercisable for the aggregate number of Warrant Shares as the Warrant Certificate surrendered.

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3. Rights and Obligations of Holder of this Certificate. The Holder of this Warrant Certificate shall not, by virtue hereof, be entitled to any rights of a shareholder in the Company, either at law or in equity; provided, however, that in the event any shares of Common Stock are issued to the Holder hereof upon exercise of some or all of the Warrants evidenced by this Warrant Certificate, such Holder shall, for all purposes, be deemed to have become the holder of record of such Common Stock on the date on which this Warrant Certificate and a duly executed Election to Purchase form were surrendered and payment of the Aggregate Exercise Price was made pursuant to the terms hereof, irrespective of the date of delivery of such share certificate. The rights of the Holder of this Warrant Certificate are limited to those expressed herein and the Holder of this Warrant Certificate, by his acceptance hereof, consents and agrees to be bound by, and to comply with, all of the provisions of this Warrant Certificate, including, without limitation, all of the obligations imposed upon the Holder contained in this Warrant Certificate. In addition, the Holder, by accepting this Warrant Certificate, agrees that the Company may deem and treat the person in whose name this Warrant Certificate is registered on the books of the Company as the absolute, true and lawful owner of this Warrant Certificate for all purposes

whatsoever, and the Company shall not be affected by any notice to the contrary.

4. Common Stock.

4.1 The Company covenants and agrees that all shares of Common Stock which may be acquired by the Holder under this Warrant Certificate will, when issued pursuant to the terms of this Warrant and upon delivery, be duly and validly authorized and issued, fully paid and nonassessable, and free from all stamp taxes, liens, and charges with respect to the purchase thereof.

4.2 The Company covenants and agrees that it will, at all times, reserve and keep available an authorized number of shares of its Common Stock and other applicable securities sufficient to permit the exercise in full of all outstanding options, warrants and rights, including this Warrant.

5. No Fractional Shares. No Fractional Shares or scrip representing Fractional Shares shall be issued upon the exercise of this Warrant. Fractional shares shall be rounded down to the nearest whole share of Common Stock.

6. Disposition of Warrant or Shares.

6.1 The Holder of this Warrant Certificate, by his acceptance thereof, agrees that (a) no public distribution of this Warrant or Warrant Shares will be made in violation of the provisions of the Securities Act of 1933, as amended, and the Rules and Regulations promulgated thereunder (collectively, the "Act"), and (b) during such period as delivery of a prospectus with respect to this Warrant or Warrant Shares may be required by the Act, no public distribution of this Warrant or Warrant Shares will be made in a manner or on terms different from those set forth in, or without delivery of, a prospectus then meeting the requirements of

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Section 10 of the Act and in compliance with all applicable state securities laws. The Holder of this Warrant Certificate and each transferee hereof further agrees that if any distribution of this Warrant or Warrant Shares is proposed to be made by them otherwise than by delivery of a prospectus meeting the requirements of Section 10 of the Act, such action shall be taken only after receipt by the Company of an opinion of counsel reasonably satisfactory to the Company, to the effect that the proposed distribution will not be in violation of the Act or of applicable state law. Furthermore, it shall be a condition to the transfer of this Warrant that any transferee thereof deliver to the Company his or its written agreement to accept and be bound by all of the terms and conditions contained in this Warrant Certificate.

6.2 By acceptance hereof, the Holder represents and warrants that this Warrant Certificate is being acquired, and all Warrant Shares to be purchased upon the exercise of this Warrant Certificate will be acquired, by the Holder solely for the account of the Holder and not with a view to the fractionalization and distribution thereof, and will not be sold or transferred except in accordance with the applicable provisions of the Act and the rules and regulations promulgated thereunder, and the Holder agrees that neither this Warrant Certificate nor any of the Warrant Shares may be sold or transferred except under cover of a registration statement under the Act which is effective and current with respect to such Warrant Shares or pursuant to an opinion of counsel

reasonably satisfactory to the Company that registration under the Act is not required in connection with such sale or transfer. Any Warrant Shares issued upon exercise of this Warrant shall bear a legend to the following effect:

The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the "Act"), or qualified under applicable state securities laws, and are restricted securities within the meaning of the Act. Such securities may not be sold or transferred, except pursuant to a registration statement under such Act and qualification under applicable state securities laws or pursuant to an opinion of counsel reasonably satisfactory to the issuer of such securities that registration and qualification are not required under applicable federal or state securities laws or an exemption is available therefrom.

7. Warrant Holder Not Shareholder. This Warrant Certificate shall not confer upon the Holder any right to vote the Warrant Shares or to consent to or receive notice as a shareholder of the Company or any other rights as a shareholder of the Company because of this Warrant Certificate.

8. Registration Rights.

8.1 Subject to the terms of this Section 8, the Holder of this Warrant shall have the right to include all of the Warrant Shares after as part of any registration of securities filed by the Company (other than in connection with a transaction contemplated

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by Rule 145(a) promulgated under the Act or the registration of securities on Form S-4 or Form S-8), and the Holder of this Warrant must be notified in writing of such filing. The Holder shall have five (5) business days to notify the Company in writing as to whether the Company is to include the Warrant Shares as part of the registration; provided, however, that if any registration pursuant to this Section shall be underwritten, in whole or in part, the Company may require that the Warrant Shares requested for inclusion pursuant to this Section be included in the underwriting on the same terms and conditions as the securities otherwise being sold through the underwriters. If in the good faith judgment of the underwriter of such offering only a limited number of Warrant Shares should be included in such offering, or no such shares should be included, the Holder of such Warrant Shares, and any other selling shareholders, shall be reduced, such reduction to be applied by excluding (on a pro rata basis) Warrant Shares proposed to be sold by the Holder of this Warrant and shares proposed to be sold by all other selling shareholders. Those Warrant Shares (and all other shares of Common Stock held by the selling shareholders) which are not included in an underwritten offering pursuant to the foregoing provisions of this Section shall be withheld from the market by the holders thereof for a period, not to exceed one hundred and twenty (120) days, which the underwriter may reasonably determine is necessary in order to effect such underwritten offering, and the Holder shall sign any agreement to this effect requested by such underwriter. Notwithstanding the foregoing provisions, the Company may withdraw any registration statement without incurring any liability to the Holder of Warrant Shares.



8.2 If the Company has not registered the Warrant Shares as part of a registration of securities filed by the Company pursuant to Section 8.1 hereof by December 1, 1998, then, in such event and subject to the terms of this Section 8, at any time beginning after December 1, 1998, and ending as of the termination of the Exercise Period, at the written request of the Holder (whether or not the Holder theretofore shall have exercised this Warrant in whole or in part), and provided that (i) at the time of such request the Holder is the owner of, and/or has the right pursuant to this Warrant to purchase, Warrant Shares representing in the aggregate (either alone or together with Warrant Shares theretofore purchased and/or purchasable upon the exercise of this Warrant) more than 250,000 of the total number of Warrant Shares theretofore issued and then issuable upon the exercise of this Warrant or (ii) the Company has not theretofore provided the Holder the opportunity to include within the coverage of a registration statement, which registration statement has been declared effective by the Securities and Exchange Commission ("Commission"), all of the Warrant Shares therefore issued and then issuable upon the exercise of this Warrant pursuant to the provisions of Section 8.1 hereof or (iii) the Holder is unable to sell all of the Warrant Shares without registration under the Act pursuant to an exemption provided by the Act, the Company promptly shall prepare and file with the Commission a registration statement under the Act covering all of the Warrant Shares theretofore issued and which thereafter may be issuable upon the exercise of this Warrant (provided, that, if the request for registration is received by the Company within forty-five (45) days prior to the commencement of a fiscal year of the Company, the Company may delay the preparation and filing of such registration statement for a period of not more than one hundred twenty (120) days following the commencement of such fiscal year in order to prepare and include in such registration statement audited financial statements for the immediately preceding fiscal year) and shall use it reasonable efforts to cause such registration

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statement to become effective as promptly as practical and to remain effective and current with respect to the Warrant Shares pursuant to Section 8.3 below. The right to demand the filing of a registration statement pursuant to this Section 8.2 shall be exercisable on one (1) occasion only.

8.3 The Company shall use reasonable efforts to keep effective and current the registration statement filed by the Company under either Section 8.1 or 8.2 hereof, which registration statement has been declared effective by the Commission, with respect to the Warrant Shares for an aggregate period ending upon the earlier of (i) two (2) years after the termination of the Exercise Period or the last exercise by the Holder of all of the Warrant Shares, whichever occurs first, or (ii) the Holder is permitted to sell or otherwise dispose of the Warrant Shares acquired by the Holder upon exercise of this Warrant without registration under the Act as a result of the provisions of Rule 144 (k) promulgated under the Act or a similar exemption from registration under the Act, or (iii) the disposal or transfer of all of the Warrant Shares by the Holder that are acquired by the Holder.

8.4 Unless terminated sooner, the registration rights set forth in Sections 8.1 and 8.2 above shall cease upon the earliest of (a) the effective registration under the Act of all of the Warrant Shares, (b) the disposal or transfer of such Warrant Shares by the Holder, (c) registration under the Act is no longer required

for the immediate public distribution of such Warrant Shares as a result of the provisions of Rule 144 promulgated under the Act, or (d) such Warrant Shares cease to be outstanding.

8.5 Subject to the immediately following sentence, the Company shall in all events pay and be responsible for all fees, expenses, costs and disbursements associated with the registering of the Warrant Shares under this Section 8, including filing fees, fees, costs and disbursements of the Company's counsel, accountants and other consultants representing the Company therewith. Notwithstanding anything set forth herein to the contrary, Holder shall be responsible for and shall pay any and all underwriting discounts and commissions in connection with the sale of the Warrant Shares pursuant to this Section 8 and all fees of its legal counsel and other advisors retained by the Holder in connection with reviewing any registration statement.

8.6 (i) The Company will indemnify and hold harmless the Holder and its directors and officers and any underwriter (as defined in the Act) for the Holder and each person, if any, who controls the Holder or such underwriter within the meaning of the Act, from and against, and will reimburse the Holder and each such underwriter and controlling person with respect to, any and all loss, damage, liability, cost and expense to which such Holder or any such underwriter or controlling person may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement or alleged untrue statement of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements

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therein, in light of the circumstances in which they were made not misleading; provided, however, that the Company will not be liable in any such case to the extent that any such loss, damage, liability, cost or expense arises out of, or is based upon, any untrue statement or alleged untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by the Holder, such underwriter or such controlling person in writing specifically for use in the preparation thereof.

ii. The Holder will indemnify and hold harmless the Company, its directors and officers, any controlling person and any underwriter from and against, and will reimburse the Company, its directors and officers, any controlling person and any underwriter with respect to, any and all loss, damage, liability, cost or expenses to which the Company or any controlling person and/or any underwriter may become subject under the Act or otherwise, insofar as such losses, damages, liabilities, costs or expenses are caused by any untrue statement, or alleged untrue statement, of any material fact contained in such registration statement referred to in Sections 8.1 or 8.2 of this Warrant, any prospectus contained therein or any amendment or supplement thereto, or arise out of, or are based upon, the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was so made in reliance upon, and in strict conformity with, written information furnished by, or on

behalf of, the Holder specifically for use in the preparation thereof.

9. Anti-Dilution.

9.1 If the Company at any time, or from time to time, while this Warrant Certificate is outstanding shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or other securities of the Company, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or other securities of the Company or in any right to acquire Common Stock), or if the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the number of shares of Common Stock issuable upon the exercise of this Warrant Certificate or the Exercise Price shall be appropriately adjusted such that immediately after the happening of any such event, the proportionate number of shares of Common Stock issuable immediately prior to the happening of such event shall be the number of shares of Common Stock issuable subsequent to the happening of such event.

9.2 In case of any consolidation or merger of the Company in which the Company is not the surviving entity, or in case of any sale or conveyance by the Company to another entity of all or substantially all of the property of the Company as an entirety or substantially as an entirety, the Holder shall have the right thereafter, upon exercise of this Warrant, to receive the kind and amount of securities, cash or other property which the Holder would have owned or been entitled to receive immediately after such

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consolidation, merger, sale or conveyance had this Warrant been exercised in full immediately prior to the effective date of such consolidation, merger, sale or conveyance, and in any such case, if necessary, appropriate adjustment shall be made in the application thereafter of the provisions of this Section 9 with respect to the rights and interests of the Holder to the end that the provisions of this Section 9 thereafter shall be correspondingly applicable, as nearly as may be, to such securities and other property.

10. Redemption at Corporation's Option. At any time, and from time to time, during the period beginning July 16, 1999 and ending upon the termination of the Exercise Period, the Company may, at its sole option, but shall not be obligated to, redeem this Warrant at a redemption price of five cents (\$.05) per Warrant Share covered by this Warrant (the "Redemption Price"). The Company may exercise its option to redeem this Warrant only if (a) the Warrant Shares are covered by a registration statement filed with the Commission which is effective as of the date of the Redemption Notice (as defined below) and remains effective through the Redemption Date (as defined below) and (b) the average closing bid quotation of the Company's Common Stock as reported on the National Association of Securities Dealers Automated Quotation system ("NASDAQ"), or the average closing price if listed on a national securities exchange, for the ten (10) trading days immediately prior to the date of the Redemption Notice (as defined below) is \$3.75 or more.

10.1 Mechanics of Redemption. Thirty (30) days prior to any date stipulated by the Company for the redemption of this

Warrant (the "Redemption Date"), a written notice ("the Redemption Notice") shall be mailed to each Holder of record. The Redemption Notice shall state: (a) the Redemption Date of the Warrants, (b) the number of Warrants to be redeemed from the Holder to whom the redemption notice is addressed, (c) instructions for surrender to the Company in the manner and at the place designated in this Warrant Certificate to be redeemed from such Holder, and (d) as to how to specify to the Company the number of Warrants to be exercised into Warrant Shares, as provided in Sections 1 and 10.2 hereof.

10.2 Exercise Upon Redemption. Upon receipt of the Redemption Notice, the Holder of this Warrant shall have the option, at its sole election, to specify what portion of this Warrant called for redemption in the Redemption Notice shall be redeemed as provided in this Section 10 or exercised into Warrant Shares in the manner provided in Section 1 hereof.

11. Notices. Except as otherwise specified herein to the contrary, all notices, request, demands and other communications required or desired to be given hereunder shall only be effective if given in writing, by hand, by fax, by certified or registered mail, return receipt requested, postage prepaid, or by U.S. Express Mail service, or by private overnight mail services (e.g., Federal Express). Any such notice shall be deemed to be have been given (a) on the business day actually received if given by hand or by fax, (b) on the business day immediately subsequent to mailing, if sent by U.S. Express Mail service or private overnight mail service, or (c) five (5) business days following the mailing thereof, if mailed by certified or registered mail, postage prepaid, return receipt requested, and all such notices shall be

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sent to the following addresses (or to such other address or addresses as a party may have advised the other in the manner provided in this Section 11):

If to the Company:	Perma-Fix Environmental Services, Inc. 1940 Northwest 67th Place Gainesville, Florida 32606-1649 Attention: Dr. Louis F. Centofanti Chief Executive Officer Fax No.: (352) 373-0040
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with copies simultaneously by like means to:	Conner & Winters One Leadership Square, Suite 1700 211 North Robinson Oklahoma City, Oklahoma 73102 Attention: Irwin H. Steinhorn, Esquire Fax No.: (405) 232-2695
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If to the Holder:	Robert B. Prag 2420 K Street Suite 220 Sacramento, CA 85816 Fax No. (916) 448-6084
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with copies simultaneously by like means to:	Kelly Lytton Mintz & Vann 1900 Avenue Of The Stars Suite 1450 Los Angeles, California 70067 Attention: Allen Jacobsen, Esquire Fax No. (310) 277-1804
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12. Governing Law. This Warrant Certificate and all rights and obligations hereunder shall be deemed to be made under and governed by the laws of the State of Delaware without giving effect to such State's conflict of laws provisions. The Company and the Holder irrevocably consent to the venue and jurisdiction of the federal court located in Wilmington, Delaware.

13. Binding Effect. This Warrant Certificate shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors, permitted assigns, heirs, executors and administrators.

14. Headings. The headings of various sections of this Warrant Certificate have been inserted for reference only and shall not be a part of this Agreement.

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IN WITNESS WHEREOF, the Company has caused this Warrant Certificate to be duly executed, manually or by facsimile, by one of its officers thereunto duly authorized.

Dated as of June 30, 1998

PERMA-FIX ENVIRONMENTAL  
SERVICES, INC.

By /s/ Louis F. Centofanti

\_\_\_\_\_  
Dr. Louis F. Centofanti  
Chief Executive Officer

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ELECTION TO PURCHASE

To be Executed by the Holder in Order to Exercise the Common Stock Purchase Warrant Certificate.

The undersigned Holder hereby irrevocable elects to purchase \_\_\_\_\_ of the Warrant Shares represented by this Warrant Certificate, and to purchase the shares of Common Stock issuable upon such exercise and requests that certificates for securities be issued in the name of:

\_\_\_\_\_  
(Please type or print name and address)

\_\_\_\_\_  
\_\_\_\_\_  
(Social Security Number)

And delivered to

(Please type or print name and address)

and, if such number of Warrant Shares to be purchases shall not be for all the Warrant Shares evidenced by this Warrant Certificate, that a new Common Stock Warrant Certificate for the balance of such Warrant Shares to be registered in the name of, and delivered to, the Holder at the address below, as provided in the Warrant.

The undersigned Holder hereby irrevocable elects to pay for the above referenced Warrant Shares pursuant to (check one):

☐ Section 1.1(a) of this Warrant, or

☐ Section 1.1(b) of this Warrant.

Dated: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Holder)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Social Security or Federal I.D. Number)

\_\_\_\_\_  
(Signature(s) guaranteed