August 14, 2012

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION
14440 CIVIC DRIVE, SUITE 200, VICTORVILLE CA 92392

NOTICE OF PROPOSED CLEANUP AND ABATEMENT ORDER NO. R6V-2012-(PROPOSED) FOR THE CITY OF BARSTOW WASTEWATER TREATMENT PLANT, CITY OF BARSTOW, SAN BERNARDINO COUNTY, WDID NO. 6B360101001

NOTICE IS HEREBY GIVEN that the California Regional Water Quality Control Board, Lahontan Region (Water Board) is soliciting comments on a proposed Cleanup and Abatement Order (CAO) requiring the City of Barstow to clean up and abate the effects of wastewater discharges and application of biosolids from its wastewater treatment plant (Facility) onto the Northern Reclamation Field. The discharges have resulted in violations of waste discharge requirements for the Facility and prohibitions contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan). Written comments must be received at the address above, attention Ghasem Pour-ghasemi, or by email to gpourghasemi@waterboards.ca.gov, **by 5:00 p.m. on September 27, 2012**.

Biosolids application and treated sewage effluent discharged from the Facility to the Northern Reclamation Field have adversely affected and polluted groundwater down gradient of the Northern Reclamation Field between the Soapmine Road and the Mojave River. The City of Barstow proposes to:

- Construct four new groundwater extraction wells along Webster Road;
- Construct one new groundwater extraction well along Clay River Road (midway between Webster Road and Irwin Bench Lane on Clay River Road);
- Extract a total of approximately 1,000 gallons per minute from the five groundwater extraction wells;
- Remove excess nitrate from the extracted groundwater using a fluidized bed reactor; and
- Discharge treated water into two percolation ponds on the south side of the Mojave River near the Facility.

The goal of the proposed groundwater extraction system is to achieve and maintain hydraulic control of nitrate-nitrogen polluted groundwater up gradient of Webster Road and down gradient of the Northern Reclamation Field.

The requirements for the proposed groundwater extraction system are covered under Category I in the proposed CAO. Category II requirements in the proposed CAO direct the City of Barstow to identify feasible methods and alternatives to establish hydraulic control of the eastern leading edge of the groundwater nitrate-nitrogen plume and propose a plan to clean up

the groundwater in the Irwin Bench Lane, Marks Road, and Nelson Road areas down-gradient of the proposed five well extraction system.

Following the public comment period, Water Board staff will review any comments it receives and make changes to the proposed CAO if appropriate.

Please bring the above information to the attention of anyone you know who would be interested in the matter. Any questions concerning the details of the Cleanup and Abatement Order should be directed to Ghasem Pour-ghasemi at (760)241-7309 or (gpourghasemi@waterboards.ca.gov). Written comments should be sent by email or by U.S. Mail to Ghasem Pour-ghasemi at the Water Board's address listed above.

Dated: August 14, 2012

Mike Plaziak
Supervising Engineering Geologist

Enclosure: Proposed Cleanup and Abatement Order

GPG/rp/EnfOrders2012/CityofBarstow/CoverLtrCAO

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

CLEANUP AND ABATEMENT ORDER NO. R6V-2012-(PROPOSED)

WASTEWATER TREATMENT PLANT, CITY OF BARSTOW
WDID NO. 6B360101001

REQUIRING THE CITY OF BARSTOW TO CLEANUP AND ABATE THE DISCHARGE AND THREATENED DISCHARGE OF NITRATE CONTAMINANTS TO THE GROUNDWATERS OF THE MOJAVE RIVER HYDROLOGIC UNIT

San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (hereinafter Water Board) finds that:

A. FINDINGS

1. The City of Barstow (hereafter the "Discharger") owns and operates the Barstow Wastewater Treatment Plant (Facility) located at 2200 Riverside Drive, Barstow in San Bernardino County.

2. Waste Discharge Requirements (WDRs) contained in Water Board Order No. 6-94-26 (Order) regulate waste discharges from the Facility. The Order authorizes the disposal of secondary-treated effluent and biosolids to eight percolation ponds and two reclamation fields: one active 60-acre reclamation field located on the south side of the Mojave River and a second, inactive, 67-acre reclamation field on the north side of the Mojave River (hereinafter the "Northern Reclamation Field").

3. Until 2004, and for approximately two decades prior to 2004, the Discharger applied up to 500,000 gallons per day of secondary-treated effluent to the Northern Reclamation Field. The secondary-treated effluent contained nitrate- and total Kjeldahl (TKN) nitrogen, which converts to nitrate in the soil. The Discharger also spread unknown amounts of secondary-treated sewage biosolids from the Facility to the Northern Reclamation Field.

4. Nitrate-containing wastes have polluted groundwater beyond the boundaries of the Northern Reclamation Field. Quarterly monitoring reports produced by the Discharger delineated the extent of the nitrate pollution. The groundwater nitrate plume, as of December 2011, is about 7,500 feet long and about 1,500 feet wide, and contains nitrate (as nitrogen) concentrations that exceed the Maximum Contaminant Level (MCL) of 10 milligrams per liter (mg/L)[1] (Attachment A)[2]. Moreover, the plume has migrated down gradient from the Northern Reclamation Field to the Soapmine Road neighborhood, affecting a number of domestic drinking water wells.

[1] The MCL is 45 mg/L nitrate as nitrate (NO_3) (Cal. Code Regs., tit. 22, § 64400 et seq.), which is equivalent to 10 mg/L as nitrate as nitrogen (N). For simplicity, this Order will use the common term "nitrate" when referring to nitrate as nitrogen (N).
[2] Extraction Well Construction and Aquifer Test Report, February 10, 2013, DPRA Inc.

5. The Water Board issued Cleanup and Abatement Order No.R6V-2007-0017 (2007 Order) on May 25, 2007, which required the Discharger to provide uninterrupted replacement water to residences in the Soapmine Road area where the nitrate concentration in groundwater exceeds 5 mg/L. In issuing that Order, the Water Board found that the groundwater beneath and immediately down gradient of the Northern Reclamation field exceeded the drinking water standard for nitrate, (10 mg/L), and thus the affected groundwater was no longer useable for drinking or domestic supply. On June 18, 2007, the City petitioned this Order to the State Water Board and then requested the petition be held in abeyance.

6. The Water Board issued Investigative Orders to the Discharger on May 18, 2007 and February 17, 2009, respectively. Those investigative orders required the Discharger to develop a plan of action to investigate the nitrate groundwater pollution and to propose and implement an interim and final cleanup remediation strategy.

7. From on or about October 2009 through January 2010, the Discharger conducted a pilot-scale evaluation of a Fluidized Bed Reactor (FBR) system to treat nitrate-laden groundwater. The evaluation successfully reduced nitrate concentrations in treated groundwater to less than 5 mg/L.

8. On January 14, 2011, the Discharger produced the Supplemental Report to the Feasibility Study and Remedial Action Plan (SRFSRAP) outlining a plan to clean up the nitrate pollution in groundwater. The report proposes to pump groundwater from the shallow aquifer in the Soapmine Road neighborhood, convey it through an existing pipeline beneath the Mojave River bed, and then treat the groundwater using the FBR system located near the wastewater treatment plant to remove nitrate. Treated groundwater would be discharged to percolation ponds 1 and 2 at the Facility.

9. On February 10, 2012, the Discharger produced a report titled Extraction Well Construction and Aquifer Test Report (EWCATR). The EWCATR demonstrates that the shallow aquifer has the capacity to support the proposed cumulative extraction rate of 1,000 gallons per minute from five extraction wells located down gradient of the Northern Reclamation Field. The EWCATR further indicates the proposed five-well extraction system will establish hydraulic control of the shallow groundwater flowing from the Northern Reclamation Field area and fully capture the nitrate polluted groundwater upgradient of the extraction network along Webster Road.

10. On February 24, 2012, the Discharger produced a report titled Second Supplement to the May 2010 Feasibility Study and Remedial Action Plan (Second SRFSRAP). The Second SRFSRAP proposes a groundwater cleanup strategy that builds upon the success of previous pilot studies and aquifer testing discussed above to achieve cleanup of the groundwater pollution near Soapmine Road. The proposed remediation strategy is to extract up to 1,000 gallons per minute cumulatively from a groundwater extraction system consisting of five extraction wells proposed for completion in the upper aquifer. The proposed zone of capture from the extraction wells will have a radius of approximately 275 feet, with a half-foot drawdown at the edge of the capture

zone.[3] The extraction system would achieve and maintain hydraulic control of the plume along Webster Road and down-gradient of the Northern Reclamation Field (Attachment B). However, this strategy will not address capture, extraction, and treatment of polluted groundwater east of Irwin Bench Lane, down-gradient of the extraction wells with the largest mass area of nitrate concentrations exceeding the MCL of 10 mg/L (Attachment A).

11. This Cleanup and Abatement Order divides required tasks into two categories. Tasks in Category I require the Discharger to implement elements of the Second SRFSRAP to achieve hydraulic control for a portion of groundwater pollution via the proposed five well extraction system. Tasks in Category II require the Discharger to identify feasible methods and preferred alternative(s) to establish hydraulic control and remediation of the plume in the Irwin Bench Lane, Marks Road, and Nelson Road area down-gradient of the proposed five well extraction system.

12. This Order does not address cleanup and/or abatement of nitrate-contaminated soils at the Northern Reclamation Field, nor does it address the nitrate groundwater pollution on the south side of the Mojave River. Notwithstanding the issuance of this Cleanup and Abatement Order, the Water Board retains the authority to issue additional enforcement orders to address the remediation of nitrate nitrogen pollution in those areas not addressed by this Order.

13. The Discharger is a responsible party subject to this Order because, as the owner and operator of the Facility, the Discharger knew or should have known of the discharges of waste and had the ability to control those discharges. The Discharger submitted technical reports that demonstrate the Northern Reclamation Field is the primary source of nitrate groundwater pollution on the north side of the Mojave River.[4] Concentrations of nitrate immediately down gradient of the Northern Reclamation Field range up to 30 mg/L. Groundwater moves from the Northern Reclamation Field to the east generally parallel to the Mojave River. Sources of nitrate nitrogen down-gradient of the Northern Reclamation Field are primarily limited to the past disposal of wastewater and biosolids to the Northern Reclamation Field. There are approximately 40 individual residences on individual septic systems in the area down gradient of the Northern Reclamation Field. Based on the volume of water disposed, domestic septic systems may account for about 2 percent of the total nitrogen mass contribution[5]. In addition, the Discharger contributed additional nitrogen mass when biosolids were also disposed to the Northern Reclamation Field as soil amendment. Background studies for groundwater north of the Mojave River indicate background nitrate levels of 6.5 mg/L or less.

[3] Second Supplement to the May 2010 Feasibility Study and Remedial Action Plan, dated February 24, 2012, DPRA Inc., p. 5.
[4] 1st Quarter, 2010 Groundwater Monitoring Report, dated April 27, 2010, DPRA Inc., Feasibility Study and Remedial Action Plan, Volume 1 of 2, dated May 27, 2010, DPRA Inc. and 1st Quarter 2012 Groundwater Monitoring Report, dated July 27, 2012
[5] Assumes: About 40 homes on individual domestic septic systems x 250 gallons per day per home = 10,000 gal/day compared to the 500,000 gal/day of wastewater from the discharger's WWTP applied to the Northern Irrigation Field.

B. BENEFICIAL USES AND WATER QUALITY OBJECTIVES

14. The *Water Quality Control Plan for the Lahontan Region* ("Basin Plan") establishes beneficial uses of water and water quality objectives to ensure the protection of those beneficial uses. The Facility, the Northern Reclamation Field, and the Soapmine Road Neighborhood are located within the Mojave Hydrologic Unit and the Middle Mojave River Valley Groundwater Basin.

15. Pursuant to Chapter 2 of the Basin Plan, present and potential beneficial uses of groundwater underlying the Northern Reclamation Field, and down-gradient, include domestic and municipal water supply, agricultural water supply, industrial water supply, freshwater replenishment, and aquaculture.

16. Chapter 3 of the Basin Plan states that groundwater designated as a municipal water supply shall not contain concentrations of chemical constituents in excess of the MCL based upon drinking water standards specified in title 22 of the California Code of regulations. Groundwater that contains substances in concentrations above the MCL is impaired with respect to beneficial uses associated with drinking water use (e.g., municipal water supply).

C. CLEANUP STANDARDS

17. The Water Code and regulations and polices developed thereunder require cleanup and abatement of discharges and threatened discharges of waste to the extent technologically and economically feasible. Pursuant to State Water Board Policy 92-49, cleanup and abatement activities are to provide attainment of background levels of water quality or the highest level of water quality that is reasonable if cleanup to background levels of water quality cannot be restored. Alternative cleanup levels that are less stringent than background levels can only be approved if: (a) they are consistent with the maximum benefit to the people of the State, (b) do not unreasonably affect present and anticipated beneficial use of water, and (c) do not result in water quality less than that prescribed in the Water Quality Control Plans and policies adopted by the State and Regional Water Boards (Resolution No. 92-49, section III (G)). Cleanup to background levels is the presumptive standard. Any proposed alternative that will not achieve background levels must be supported with evidence that it is: (a) technologically or economically infeasible to achieve background levels, (b) the lowest level that is technologically or economically achievable is demonstrated and does not exceed water quality objectives, and (c) the pollutant will not pose a substantial present or potential hazard to human health or the environment for the duration of the exceedance of background levels.

18. In an August 19, 2010 letter, Water Board staff concurred with the Discharger's recommendation than an interim nitrate background concentration for groundwater north of the Mojave River be set at 6.5 mg/L. For the purposes of this Order, cleanup actions must continue until this concentration is achieved. Water Board reserves the right to re-assess background concentrations and modify the groundwater cleanup levels.

D. AUTHORITY – LEGAL REQUIREMENTS

19. The secondary-treated effluent and biosolids discharged to the Northern Reclamation Field are "wastes" pursuant to Water Code section 13050, subdivision (d).

20. Water Code section 13050, subdivision (l) defines "pollution" as an alteration of the water quality of the waters of the state by waste to a degree that unreasonably affects either beneficial uses or facilities that serve these beneficial uses.

21. Water Code section 13267, subdivision (b): states the following:

> *In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharges waste within its region, … shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.*

Thus, Water Code section 13267, subdivision (b) authorizes the Water Board to require technical and monitoring reports to identify measures to protect water quality and restore beneficial uses (See Attachment C).

22. The technical and monitoring reports required by this Order are necessary to ensure the partial cleanup and abatement of the nitrate groundwater pollution down-gradient of the Northern Reclamation Field and up-gradient of the five extraction wells. Additional technical reports are required for remedial planning to address the plume east of Irwin Bench Lane in the area down-gradient of the extraction systems. Further, the following reports shall serve to verify that the Discharger performs all actions required by this Order to implement the work plans and that performance of those actions is adequate to restore the beneficial uses of the groundwater that have been adversely affected by discharges from the Discharger's Facility. A justification for need for the report and the benefits to be obtained from the reports is summarized below in Table 1:

Table 1 – Justification for Technical Report

Report	Report Requirement and Justification
Design Report (Category I)	Establish final design criteria and elements necessary to construct an initial 5-well extraction, treatment and disposal system. Report needed to evaluate feasibility of system to achieve cleanup objectives.
Progress Status Report (Category I)	Needed to evaluate whether the Discharger is on schedule to complete system installation and start-up.

As-built Report (Category I)	Record the system as constructed and describe the general mineral chemistry of groundwater in new wells and system start up activities. Needed to evaluate compliance with Order and assess feasibility to achieve cleanup objectives.
Self-Monitoring Reports (Category I)	Report results demonstrating system performance. Provide a groundwater model calibration analysis to demonstrate cleanup system performance with respect to predictive up gradient plume capture and that the cleanup simulations remain realistic. Report is needed to evaluate compliance with Order and provide information to adjust cleanup actions and plan for future additional actions.
Monitoring Well Installation Plan (Category II)	Plan to include monitoring wells sufficient to delineate the extent of groundwater pollution and degradation from the past disposal at the North Reclamation Field, to plan for future remedial actions, and to evaluate changes in nitrate concentrations in groundwater. Report is needed to identify extent of groundwater pollution and degradation.
Remedial Action Plan (Category II)	Report proposing actions to address the further spread of down-gradient groundwater pollution. Report is needed to plan and implement additional actions to address pollution not being treated as part of Category I actions.

23. Water Code section 13304, subdivision (a) states:

> *Any person … who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board, clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner.*

24. The conditions described in the Findings of this Order identify waste that has been discharged or deposited onto lands or into waters of the state (i.e., groundwater beneath the Northern Reclamation Field) or that probably will be discharged into the waters of the State. The conditions described in Findings 3, 4, and 5 constitute conditions of pollution because nitrate concentrations in the groundwater exceed the MCL for nitrate. Therefore, the quality of the groundwater has been altered to a degree that unreasonably affects beneficial uses. As a result, Water Code section 13304 authorizes the Water Board to issue this Cleanup and Abatement Order.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to Water Code sections 13267 and 13304, the Discharger shall clean up and abate discharges and threatened waste discharges in violation of the Basin Plan prohibitions for the Mojave Hydrologic Unit, and shall comply with all the other provisions of this Order as follows:

A. ORDERS

CATEGORY I

1. By **December 15, 2012**, the Discharger shall submit a Design Report, including construction plans, apparatus and specifications, for the five-well extraction network proposed in the Second SRFSRAP to the Water Board's Victorville office for the Executive Officer's approval (or her delegate's approval).

   The Design Report shall include, but not be limited to, the following information:

   a. *Design Criteria:* A detailed description of extraction and monitoring well design criteria and locations, associated pump and pipeline specifications and locations, treatment system performance standards, equipment sizes and locations, discharge transport pipeline specifications, and outfall structure design and location.

   b. *Implementation Activities:* A detailed description of all activities that are needed or planned to effectively implement the recommended alternative for the cleanup and/or remediation of the nitrate groundwater contamination described in the *Second SRFSRAP* (dated February 24, 2012).

   c. *Action Completion Schedule:* A schedule of implementation actions necessary to complete construction and begin operation of the five-well extraction system, treatment system and disposal method described in the Design Report.

   d. *Sampling and Analysis Plan*: A monitoring plan capable of:

      i. Demonstrating hydraulic capture of nitrate-polluted groundwater at the location of the five-well extraction system using groundwater elevation data and nitrate groundwater concentrations;
      ii. Documenting the operation of the fluidized bed reactor to reduce nitrogen concentrations in treated effluent;
      iii. Reporting extraction well and treatment system discharge flow rates and volumes;
      iv. Reporting percolation pond capacity such that compliance with minimum freeboard values required in current waste discharge requirements is maintained;
      v. Evaluating nitrate concentrations in the area between the north irrigation field and within the vicinity of the extraction system; and
      vi. Accurately describing monitoring locations, sampling frequencies, field sampling procedures, sample collection and preservation methods, laboratory analytical methods, and laboratory quality assurance/quality control criteria.

2. By **March 1, 2013**, submit a status report describing the Discharger's progress in meeting the actions and milestones required by this Order. The report shall provide justification for any delay encountered in implementing required actions.

3. By **June 15, 2013**, complete construction of all elements described in the Design Report and begin operation of the extraction, treatment and disposal system. Continue operating the extraction and treatment system until groundwater concentrations up-gradient of the five extraction wells achieve 6.5 mg/L nitrate.

4. By **July 15, 2013**, submit an as-built construction report describing all actions completed to construct the elements described in the Design Report. The report must be signed by a California registered civil engineer and may include the signature of a California registered professional geologist for extraction and monitoring well installation. The report shall include as a minimum:

    a. Construction drawings of the completed system;
    b. Final well construction drawings;
    c. The results of a one-time groundwater sample collected from each new extraction or monitoring well, with analysis for general minerals including nitrate; and
    d. The results of system startup and testing operations.

5. By **February 1, 2014, and annually thereafter**, submit progress Self-Monitoring Reports to the Water Board's Victorville Office. The reports shall, at a minimum, describe:

    a. The operational performance of the extraction, treatment and disposal system for the prior period;
    b. Current and historical system performance data using graphs, charts, and tabular data;
    c. Nitrate groundwater iso-concentration (for 5, 6.5, 10, 15, 20 mg/L concentration) intervals overlaid with groundwater elevations on maps of appropriate scale;
    d. A technical evaluation of the fluidized bed reactor treatment system performance (including the range and monthly averages of effluent concentrations of nitrate);
    e. A technical evaluation regarding compliance with cleaning up and abating groundwater pollution emanating from the north irrigation field;
    f. A technical evaluation of groundwater elevation changes due to extraction of groundwater for further treatment and disposal; and
    g. A technical evaluation of the groundwater extraction system to capture, remove and treat nitrate-contaminated groundwater. The report shall describe system performance relative to predicted computer model simulations. If necessary, the groundwater computer model shall be re-calibrated using previous operational data and additional groundwater model simulations generated.

CATEGORY II

6. By **July 15, 2013**, submit for Water Board acceptance a Monitoring Well Installation Plan. This Plan shall propose a sufficient number and location of monitoring locations to achieve the following objectives:

   a. Determine the lateral extent of nitrate concentrations down-gradient and cross-gradient of Webster Road to the leading edge of the plume east of monitoring well MW-29. Delineation shall be to the interim background nitrate concentration of 6.5 mg/L. The purpose of these wells is to better define the furthest extent of pollution and degradation at the leading edge of the plume.

   b. The Plan shall, at a minimum, specify: (i) the number and locations of proposed wells, (ii) well installation methods, (iii) well design criteria, (iv) methods for collecting an initial sample for general minerals analyses, including nitrate, and (v) a proposed implementation schedule.

7. By **October 15, 2013**, complete installation of the wells in the approved Monitoring Well Installation Plan and submit a final well completion report including maps, tables, and well design drawings. Begin monitoring these new wells and include data results along with the periodic groundwater sampling reports currently required by Cease and Desist Order R6V-2004-0029.

8. By **December 15, 2013**, submit to the Water Board a groundwater Remedial Action Plan to remediate nitrate groundwater pollution down-gradient of the five-well extraction system described above in Category I, in the vicinity of Irwin Bench Lane, Marks Road, and Nelson Road areas where groundwater concentrations of nitrate exceed 6.5 mg/L.

   The Remedial Action Plan, at a minimum, should identify the following:

   a. *Pollution Control Alternatives Analysis* - Feasible methods and preferred alternative(s) to establish and maintain hydraulic control of the leading edge of the plume containing nitrate concentrations above 6.5 mg/L in the upper aquifer near, and down-gradient of, well MW-29;

   b. *High Concentration Alternatives Analysis* - Feasible methods and preferred alternative(s) to remediate nitrate concentrations near Irwin Bench Lane, Marks Road, and Nelson Road to background levels within a reasonable time. The priority must be remediating the highest concentrations of nitrate in the area along Clay River Road where domestic drinking water wells exceed the MCL of 10 mg/L nitrate (Attachment A).

   c. *Implementation Schedule* - Proposed implementation schedules and milestones to complete actions for items (a) and (b), above.

d. *Sampling and Analysis Plan*: A monitoring plan capable of:

i. Demonstrating analysis of hydraulic capture of nitrate- polluted groundwater and high concentration nitrate mass removal;
ii. Reporting operational characteristic of the preferred alternative(s), such as extraction rates and treatment system performance; and
iii. Evaluating groundwater nitrate-concentration reductions down-gradient of the initial five-well extraction system and the down-gradient extent of the plume greater than 6.5 mg/L.
iv. Specifying monitoring locations, sampling frequencies, field sampling procedures, sample collection and preservation methods, laboratory analytical methods, and laboratory quality assurance/quality control criteria

e. *Cleanup Time* - An estimated time to reach the proposed groundwater cleanup level of 6.5 mg/L based upon an analysis utilizing the existing computer groundwater model developed for this project.

B. REPORTING REQUIREMENTS

1. **Signatory Requirements.** All reports required under this Cleanup and Abatement Order shall be signed and certified by the Discharger or by a duly authorized representative of the Discharger and submitted to the Water Board staff. A person is a duly authorized representative of the Discharger only if: (1) the authorization is made in writing by the Discharger and (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)

2. **Certification.** Include the following signed certification with all reports submitted pursuant to this Order:

> *I certify under penalty of perjury under the laws of the State of California that this document an all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.*

3. **Duty to Use Registered Professionals.** The Discharger shall provide documentation that plans and reports required under this Order are prepared under the direction of appropriately qualified professionals. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of registered professionals. The

responsible registered professional shall sign and affix his/her registration stamp to the report, plan, or document.

4. **Report Submittals.** All monitoring and technical reports required under this Order shall be submitted in both hard copy and electronically to:

   California Regional Water Quality Control Board
   Lahontan Region - Victorville Office
   14440 Civic Drive, Suite 200
   Victorville, CA 92392
   Attn: Ghasem Pour-ghasemi
   Email: pghasemi@waterboards.ca.gov
   Phone: (760) 241-6583

C. NOTIFICATIONS

1. **Cost Recovery.** Pursuant to Water Code section 13304, the Discharger shall be liable to the Water Board for all reasonable costs incurred by the Water Board to investigate unauthorized discharges of waste, or to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, pursuant to this Order. The Discharger shall reimburse the Water Board for all reasonable costs associated with site investigation, oversight, and cleanup. Failure to pay any invoice for the Water Board's investigation and oversight costs within the time stated in the invoice (or within thirty days after the date of invoice, if the invoice does not set forth a due date) shall be considered a violation of this Order. If the Facility is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program.

2. **California Environmental Quality Act (CEQA) Compliance.** Issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) pursuant to California Code of Regulations, Chapter 3, title 14, section 15321 subdivision (a)(2). This action is also exempt from the provisions of CEQA in accordance with section 15308 of Chapter 3, title 14 of the California Code of Regulations, as this action is to assure maintenance, restoration, enhancement, or protection of the environment.

3. **Requesting Administrative Review by the State Water Board.** Any person aggrieved by an action of the Water Board that is subject to review as set forth in Water Code section 13320, subdivision (a), may petition the State Water Board to review the action. Any petition must be made in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 and following. The State Water Board must receive the petition within 30 days of the date the action was taken, except that if the thirtieth day following the date the action was taken falls on a Saturday, Sunday, or state holiday, then the State Water Board must receive the petition by 5:00 p.m. on the next business day. Copies of the law and regulation applicable to filing petitions may be found on the internet at:

http://www.waterboards.ca.gov/publicnotices/petitions/waterquality or will be provided upon request.

4. **Request for Extension of Time.** If for any reason, the Discharger is unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Executive Officer, the Discharger may request, in writing, an extension of the time specified. The extension request must be submitted at least 10 days in advance of the deadline in question and shall include justification for any delay including a description of the good faith effort performed to achieve compliance with that deadline. The extension request shall also include a proposed time schedule to achieve compliance with the new proposed deadlines. Any modification to this Order, including but not limited to extensions of deadlines, shall be in writing and approved by the Executive Officer or her delegate.

5. **No Limitation on Water Board Authority.** This Order does not limit the authority of the Water Board to institute additional enforcement actions and/or to require additional investigation and cleanup of the site consistent with the Water Code. This Order may be revised by the Executive Officer or her delegate as additional information becomes available.

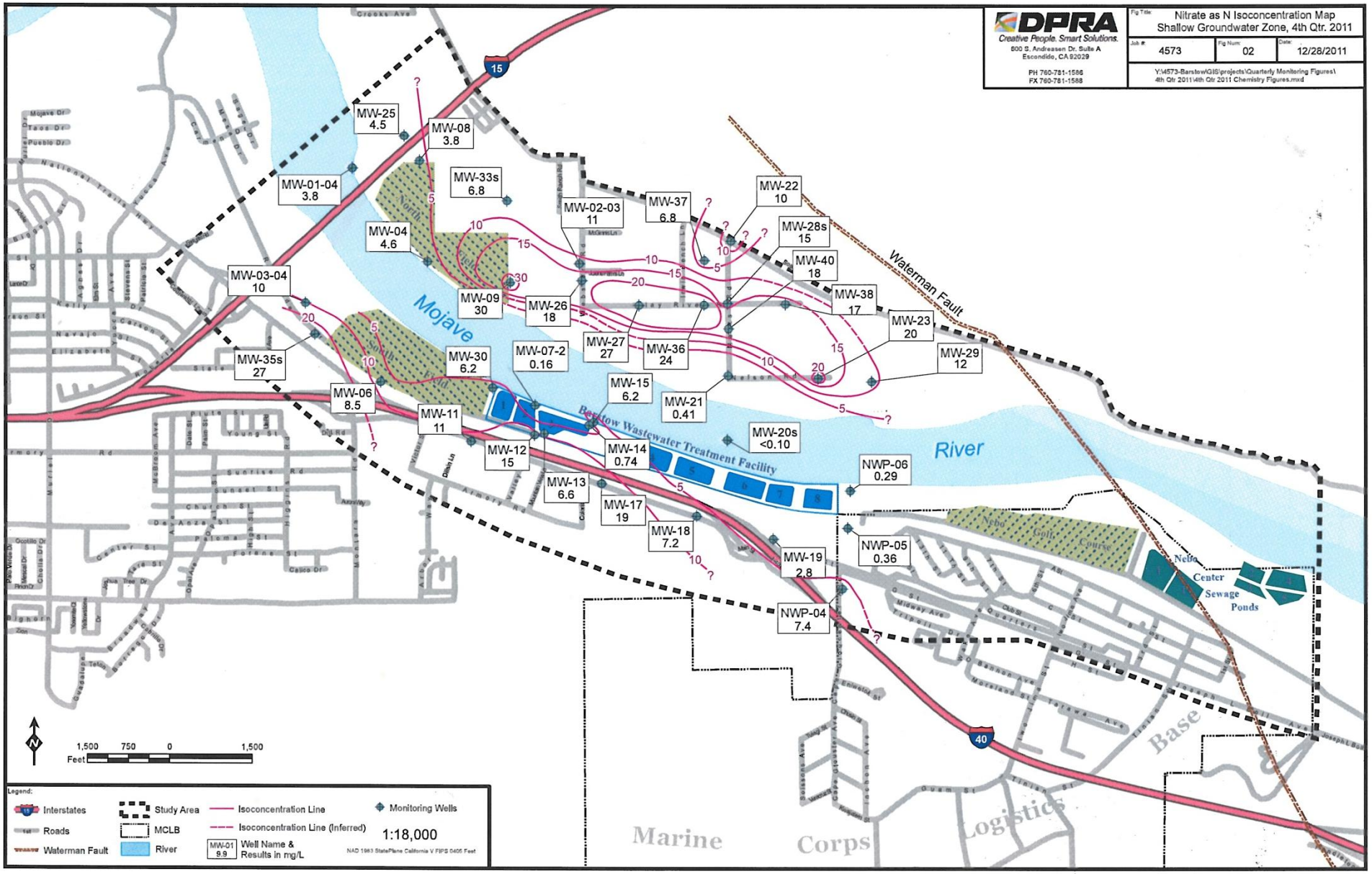
6. **No Limitation on Enforceability of Previously Issued Orders.** This Order does not affect the Discharger's obligation to comply with any previously issued Orders, including but not limited to Cleanup and Abatement Order R6V-2007-0017. The requirements and legal enforceability of any previously issued Order is not superseded or affected upon issuance of this Order.

7. **Enforcement Notification.** Failure to comply with the requirements of this Cleanup and Abatement Order may subject the Discharger to additional enforcement action, including, but not limited to, the imposition of administrative civil liability pursuant to Water Code sections 13268 and 13350, or referral to the Attorney General of the State of California for injunctive relief or civil or criminal liability. Pursuant to Water Code section 13350, $5,000 in administrative civil liability may be imposed for each day in which the violation(s) occurs under Water Code section 13304; and pursuant to Water Code section 13268, $1,000 in administrative civil liability may be imposed for each day in which the violation(s) occurs under Water Code section 13267.

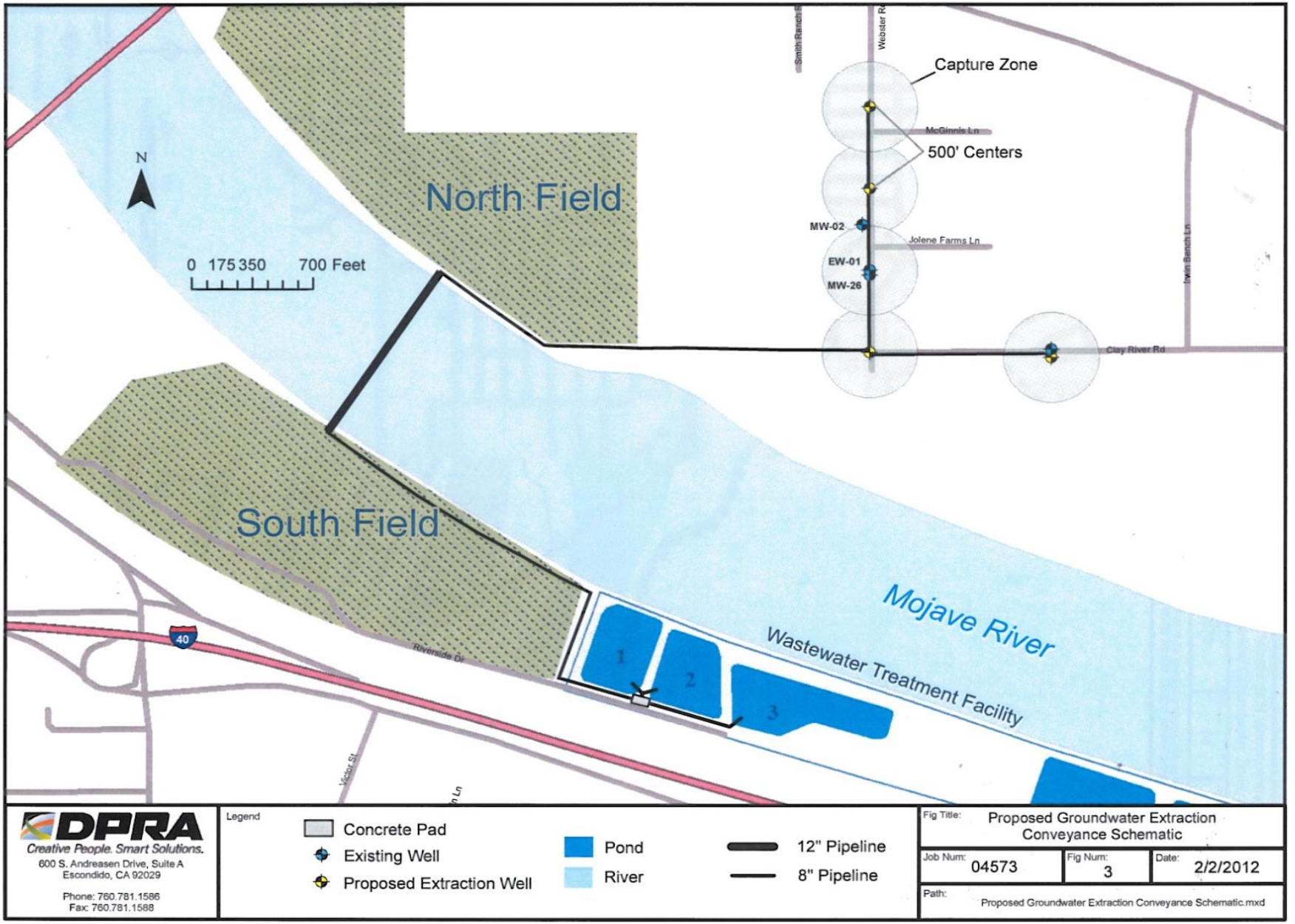
Ordered by: _____ Dated: _____
PATTY KOUYOUMDJIAN
EXECUTIVE OFFICER

Attachments: A. Nitrate Nitrogen Plume Map in Soapmine Road Area
B. Groundwater Extraction System
C. Water Code Section 13267 Fact Sheet

Attachment A: Soapmine Road Area



Attachment B: Groundwater Extraction System



Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the California Water Code

October 8, 2008

What does it mean when the regional water board requires a technical report?

Section 13267[1] of the California Water Code provides that "…the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged…waste that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires".

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

Providing the required information in a technical report is not an admission of guilt or responsibility. However, the information provided can be used by the regional water board to clarify whether a given party has responsibility.

Are there limits to what the regional water board can ask for?

Yes. The information required must relate to an actual or suspected discharge of waste, and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The regional water board is required to explain the reasons for its request.

What if I can provide the information, but not by the date specified?

A time extension can be given for good cause. Your request should be submitted in writing, giving reasons. A request for a time extension should be made as soon as it is apparent that additional time will be needed and preferably before the due date for the information.

Are there penalties if I don't comply?

Depending on the situation, the regional water board can impose a fine of up to $1,000 per day, and a court can impose fines of up to $25,000 per day as well as criminal penalties. A person who submits false information is guilty of a misdemeanor and may be fined as well.

What if I disagree with the 13267 requirement and the regional water board staff will not change the requirement and/or date to comply?

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of the Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Claim of Copyright or other Protection

Any and all reports and other documents submitted to the Regional Board pursuant to this request will need to be copied for some or all of the following reasons: 1) normal internal use of the document, including staff copies, record copies, copies for Board members and agenda packets, 2) any further proceedings of the Regional Board and the State Water Resources Control Board, 3) any court proceeding that may involve the document, and 4) any copies requested by members of the public pursuant to the Public Records Act or other legal proceeding.

If the discharger or its contractor claims any copyright or other protection, the submittal must include a notice, and the notice will accompany all documents copied for the reasons stated above. If copyright protection for a submitted document is claimed, failure to expressly grant permission for the copying stated above will render the document unusable for the Regional Board's purposes, and will result in the document being returned to the discharger as if the task had not been completed.

If I have more questions, who do I ask?

Requirements for technical reports normally indicate the name, telephone number, and email address of the regional water board staff person involved at the end of the letter.

[1] All code sections referenced herein can be found by going to www.leginfo.ca.gov . Copies of the regulations cited are available from the Regional Board upon request.