CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2008-0097

WASTE DISCHARGE REQUIREMENTS

FOR

RONEY LAND AND CATTLE COMPANY, INC.
AND
7/11 MATERIALS INC.
PINE CREEK GRAVEL OPERATION
VINA
TEHAMA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

1. Roney Land and Cattle Company, Inc. and 7/11 Materials Inc. submitted a Report of Waste Discharge, dated 26 June 2007 for a discharge of gravel wash water from an existing gravel extraction facility to ponds. The application was deemed incomplete on 10 July 2007. Additional information was submitted on 27 September 2007, 7 December 2007 and 24 March 2008. The application was deemed complete on 24 March 2008. The facility is approximately six miles southeast of Vina, east of Highway 99E on the south side of Pine Creek along the Tehama County Butte County boundary in sections 35 and 36, T24N, R1W, MDB&M (Latitude 39.86417° N, Longitude 121.95323° W) as shown on Attachment A, a part of this Order. The property on which the mining and processing occurs (Assessor's Parcel Numbers 79-070-09 and 79-070-11) is owned by Roney Land and Cattle Company, Inc. The gravel extraction process is operated by the leaseholder 7/11 Materials Inc. Roney Land and Cattle Company, Inc. and 7/11 Materials Inc. are hereafter jointly referred to as "Discharger".

2. The Pine Creek gravel operation on the Roney Property was originally operated by Big Windy Mining and Gravel. Tehama County Planning Department approved a Negative Declaration for Big Windy Mining and Gravel Inc. on 21 April 1994. The project description in the Initial study was, "To establish a gravel extraction operation including screening and crushing in a UA-AP (Upland Agriculture-Agriculture Preserve) and EA-AP, (Exclusive Agriculture- Agriculture Preserve) zoning districts. The project site would be south of Pine Creek along the Tehama County Butte County line. The application is to extract and process up to 220,000 cubic yards of gravel annually. The property is located southeast of Vina, described as a portion of the south half of sections 35 and 36, T.24.N. R.1.W., MDB&M, Assessors Parcel Number 79-070-09 and 79-070-11, approx. 507 acres." Big Windy Mining and Gravel Inc. held a lease from the property owner Roney Land and Cattle Company, Inc. The lease was acquired by 7/11 Materials Inc. in 2003.

3. Soil in the project area is described as sandy silt with some clay, underlain by fine gravel through large cobbles. The parent material is identified as Vina Loam.

4. The gravel processing area includes conveyors, screens, a crusher and wash plant. The process is as follows: Excavated material is trucked to the processing area and dumped into the feed hopper of the belt conveyor, which takes the un-graded material to the first screen. This screen removes the over 1" (cobbles) which are sent to the crusher. The 1" minus fraction is sent to the crusher or the wash plant. Crushed rock is further graded into ¾", ½", and ¼" minus, or blended for base rock. The natural (uncrushed) material is conveyed to a "pant leg" which allows material to be sent either to the wash plant or to a area where it is blended with crushed rock for base rock. Overall, approximately 25% of the material is washed. Maximum depth of excavation is 20 feet. According to information submitted by the Discharger through his consultant, the material processing rates are approximately 2,000 to 3,000 tons per day, and the quantity of overburden and soil removed is approximately 1,500 to 2,000 yards per day.

5. Gravel wash consumes approximately 1,200 gpm of water from an on-site well adjacent to the processing area. Maximum water usage is estimated to be 576,000 gallons per day. An analysis of well water indicates that the water is of good quality with neutral pH and low TDS and hardness. The original reclamation plan included recycling of pond water, however, recycling has not been implemented.

6. A review of groundwater data from wells in the vicinity of the project area indicate that the direction of groundwater flow is to the southwest with a gradient of 0.0023 ft/ft.

7. Gravel wash water is discharged to a large settling pond to the west of the processing area. The pond is presently divided into three sections by internal berms and its area is approximately 15 acres in total. It has been the Discharger's practice to drain accumulated surface water from the adjoining reclaimed areas to the east, into the pond as required, usually in late winter/early spring. The purpose of this practice is to create optimum conditions for re-vegetation of the reclaimed areas.

8. The original reclamation plan submitted by Big Windy Mining and Gravel Inc. in April 1994, called for the removal of 220,000 cubic yards of gravel per year over the estimated 30 year life of the project. The project is divided into two phases, the first of which includes the western half of the property in Section 35, and the second on the eastern half in Section 36. The project is presently in Phase 1. The reclamation plan stated that the lowest mined area would become a wetland, and that the remaining areas would be returned to upland agriculture. All slopes would be graded to 3:1 or flatter. Conditions of Use Permit 94-2 issued by Tehama County Planning to Big Windy Mining and Gravel Inc. for the subject project include prohibitions for the mining of more than 220,000 cubic yards per year of gravel, and excavating closer than 150 feet from top of the south bank of Pine Creek. The Discharger has been required by Tehama County Planning to submit a revised reclamation plan.

9. Facilities storing petroleum products (gasoline, diesel, lubricants, etc.) in aboveground tanks with a capacity greater than 1,320 gallons or the total capacity for the facility greater than 1,320 gallons are subject to the Aboveground Petroleum Storage Act (APSA). Prior to 2008 the APSA was the regulatory responsibility of the State Water Resources Control Board (SWRCB). Assembly Bill (AB)1130 was signed by Governor Arnold Schwarzenegger and chaptered on October 13, 2007, and went into effect January 1, 2008. On January 1, 2008, the Certified Unified Program Agencies (CUPA's) were vested with the responsibility and authority to implement the Aboveground APSA. There is no permanent petroleum fuel storage on site. Fueling is accomplished by means of a trailer mounted 750 gallon tank which is exempt from regulation under the APSA. The Discharger reports that, apart from the mobile fuel storage referenced above, only minor quantities of lubricants are stored on site.

10. All domestic waste generated at the site is discharged to portable toilets.

11. The discharge is within the Red Bluff Hydrologic Area (No. 504.20) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. Surface water drainage is to Pine Creek which is tributary to the Sacramento River.

12. The average annual precipitation at the site is approximately 22.5 inches. Average annual pan evaporation is approximately 68 inches.

13. The Regional Board adopted a *Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin* (hereafter Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for protecting waters of the basin, including plans and policies adopted by the SWRCB and incorporated by reference into the Basin Plan. These requirements implement the Basin Plan.

14. The Basin Plan does not specifically designate beneficial uses for Pine Creek. In accordance with the, "tributary rule", the beneficial uses cited for Pine Creek in this Order are those specified for the Sacramento River between Shasta Dam and the Colusa Basin Drain.

15. The beneficial uses for the Sacramento River and Pine Creek are municipal and domestic supply, agricultural supply; industrial supply, water contact recreation; non-contact water recreation; warm and cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development of fish, wildlife habitat, and navigation.

16. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

17. State Water Resources Control Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California, (hereafter Resolution 68-16) requires the Regional Board, in regulating the discharge of waste, to maintain high quality waters of the State until it is demonstrated that any change in quality will be consistent with the maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., quality that exceeds water quality objectives). The Regional Water Board finds that the project will not adversely impact water quality. The process at the site includes washing gravel with water. Turbid wash water is discharged to a settling pond where the suspended particles settle out. Soils at the site provide adequate filtration to preclude turbid water from migrating beyond the pond's boundary. In addition, the ponds will self-seal with the settled fines increasing their filtering capability.

18. Due to the implementation of Best Practicable Treatment and Control at the site, no surface or groundwater water quality degradation is anticipated and groundwater-monitoring wells are not required, at this time. Waste wash water is discharged to a settling pond where the suspended soil particles settle out and the water recycled. Sufficient freeboard is required to be maintained on the ponds to prevent surface discharge from the ponds. As discussed in Finding 19 below, the project is not expected to increase salt concentrations in ground or surface water. This permit does not allow measurable surface or groundwater degradation.

19. The facility and it's associated activities, as regulated under these waste discharge requirements, are not expected to have an impact on total dissolved minerals or increase the electrical conductivity (EC) of the ground or surfaces waters of the site. Soils and ground and surface waters in the region generally have low salt content. In addition, the material being mined consists of alluvial deposits well washed by the Sacramento River. While evaporation from the washing process concentrates total dissolved solids, wash water is entrained with the processed sand and gravel taking the salt load with it. Because the project is not expected to increase total dissolved minerals or increase the EC of the ground or surface waters at the site, a salinity evaluation and minimization plan is not required from the Discharger at this time. EC monitoring is required.

20. Section 13267(b) of the California Water Code (CWC) states, in part, that "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 discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste outside of its region that could affect the quality of waters of the state 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 reports 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." The reports required by Monitoring and Reporting Program No. R5-2008-0097 is necessary to assure compliance with these waste discharge requirements. The Discharger operates facilities that discharge wastes subject to this Order.

21. Federal Regulations for storm water discharges were promulgated by USEPA on 16 November 1990 (40 CFR Parts 122, 123, and 124) which require specific categories of facilities discharging storm water associated with industrial activity to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.

22. The State Water Resources Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent (NOI) by industries to be covered by the permit. The Discharger has obtained coverage under Order No. 97-03-DWQ for this facility.

23. The discharge authorized herein is exempt from the requirements of Title 27 CCR. The exemption, pursuant to Section 20090(b), is based on the following:

    a. The Regional Board is issuing these waste discharge requirements;

    b. These waste discharge requirements implement the Basin Plan and allow discharge only in accordance with the Basin Plan; and

    c. The wastewater does not need to be managed according to 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.

24. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.

25. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written comments and recommendations.

26. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. The discharge of wastes and process water to surface waters or surface water drainage courses is prohibited.

2. The discharge of wastes and process water in a manner different than specified in Finding Nos. 4, 5, and 7 is prohibited.

3. The use of flocculating agents or other chemical additives in any part of the process without prior Regional Water Board written approval is prohibited.

4. The discharge or deposit of waste other than wash water, settled solids, and allowable chemical additives at this site is prohibited.

5. The discharge of wash water or accumulated surface water to settling ponds when freeboard is less than two feet is prohibited.

6. Discharge of waste classified as “hazardous” as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., or “designated,” as defined in Section 13173 of the CWC, is prohibited.

B. Discharge Specifications

1. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the activity area.

2. All settling ponds shall be managed to prevent breeding of mosquitoes. In particular:

   a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.

   b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.

   c. Dead algae, vegetation, and debris shall not accumulate on the water surface.

3. All stockpiled products, wastes, and overburden materials shall be managed to prevent erosion of sediment to surface water drainage courses.

4. Dams, levees, and other earthworks intended to hold or convey water shall be designed and constructed under the direct supervision of and certified by a California Registered Civil Engineer or Engineering Geologist having expertise in the design of such earthworks.

5. All settling ponds shall be designed, constructed, operated and maintained to prevent inundation or washout due to floods with a return period of 100 years.

6. The settling pond system shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation, and ancillary inflow and infiltration to prevent inundation or washout during the winter months. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

7. The Discharger shall install and maintain a pond water freeboard gauge in each pond so freeboard can be readily assessed.

8. Freeboard shall never be less than two feet (measured vertically to the lowest point of overflow), except if lesser freeboard does not threaten the integrity of the pond, no overflow of the pond occurs, and lesser freeboard is due to direct precipitation or storm water runoff occurring as a result of annual precipitation with greater than a 100-year recurrence interval, or a storm event with an intensity greater than a 25-year, 24-hour storm event.

9. On or about 1 October of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specification B. 5, 6, and 8.

10. Except for recycled process water and solids removed from the settling ponds, the discharge shall remain within the settling ponds at all times.

C. Groundwater Limitations

1. The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality.

D. Provisions

1. The Discharger shall submit a copy of the updated Site Reclamation/Restoration Plan to this office within two weeks after completion.

2. The Discharger shall maintain continuous coverage under the Water Quality Order No. 97-03-DWQ (as amended), the *General Permit for Discharges of Storm Water Associated with Industrial Activities*, or, if Order No. 97-03-DWQ is renewed, the most current version.

3. The Discharger shall comply with Monitoring and Reporting Program No. R5-2008-0097, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

4. The Discharger shall submit the following information by **15 July 2008:**

   a. A copy of the revised reclamation plan and a detailed description of the excavation schedule for each phase of the operation**.** The excavation plan shall include estimates of the quantities of topsoil, sand and gravel to be removed each year and the estimated date of mine closure. The excavation plan shall also include details of future pond construction. After a review of this information, the Regional Board may require a hydraulic balance for the Phase 2 pond system. If the revised reclamation plan has not been adopted by Tehama County Planning Department by **1 July 2008**, submittal of the revised reclamation plan and excavation schedule shall be submitted **within 15 days of the date of adoption by the County**.

   b. A report which includes the coordinates of the on-site supply well and the corresponding well log.

5. The Discharger shall comply with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991, its update, or its replacement, which are incorporated herein and made part of this Order. This attachment and its individual paragraphs are commonly referenced as Standard Provision(s).

6. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Regional Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the proposed owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved by the Executive Officer.

7. The Discharger shall immediately notify the Regional Water Board by telephone whenever a violation of these WDRs or an adverse condition that may impair water quality occurs as a result of the extraction operations or the discharge; written confirmation shall follow within two (2) weeks.

8. The Discharger shall report promptly to the Board any material change or proposed change in the character, location, or volume of the discharge. The Discharger shall obtain confirmation from the Board that such proposed modifications are acceptable under the terms of these WDRs. Confirmation or new WDRs shall be obtained before any modifications are implemented. If the Executive Officer does not disapprove the proposed change within 60 days of receiving a written report describing the proposed change, the discharge may proceed in accordance with the proposed modifications. Possible changes under these WDRs include, but are not limited to, the need to expand the settling basins and/or the need to use a flocculating agent in the settling ponds.

9. The requirements of all concerned governmental agencies having jurisdiction by law including, but not limited to, the issuance of appropriate permits shall be met.

10. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

11. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.

12. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 12 June 2008.

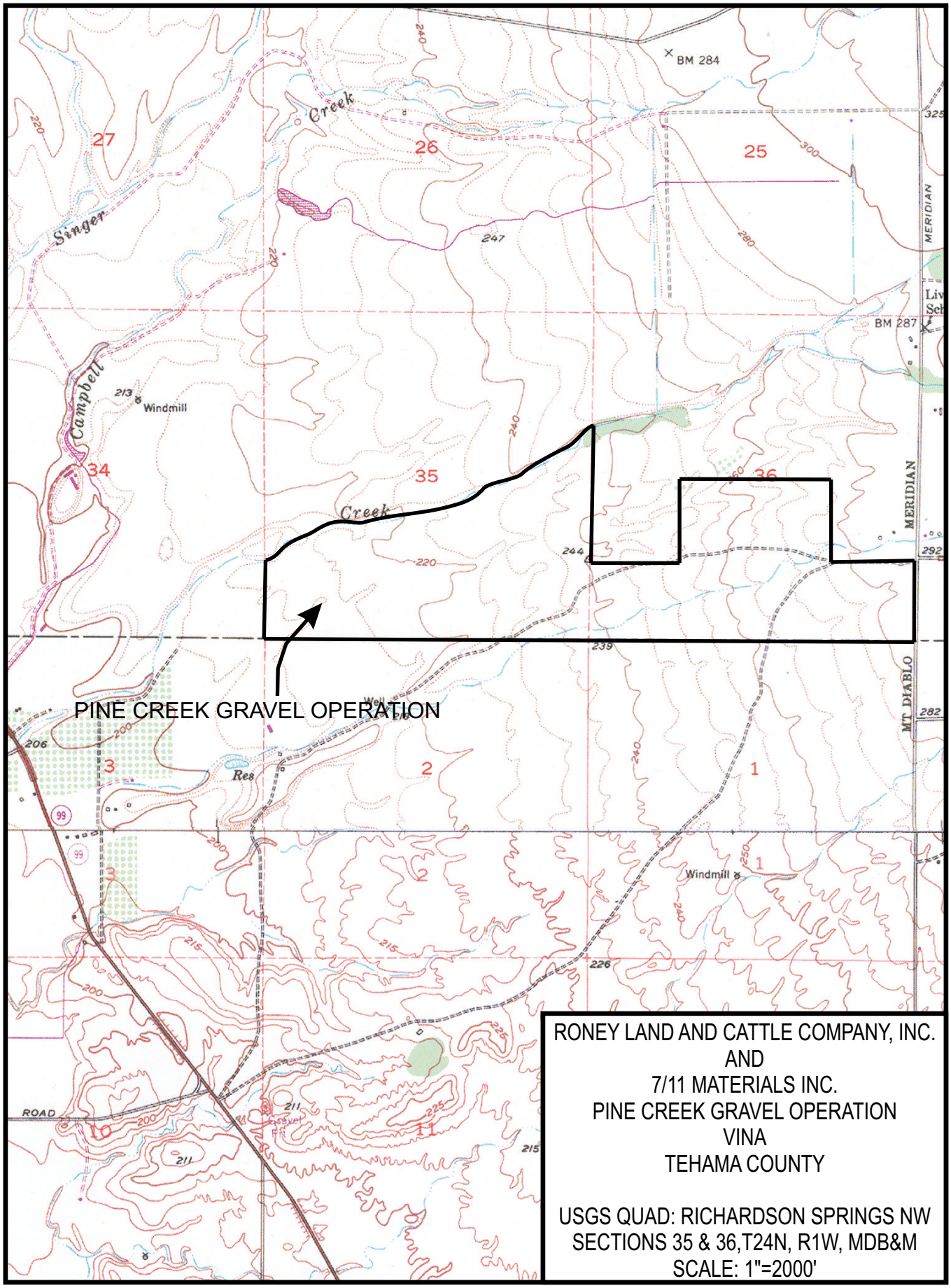
_____
PAMELA C. CREEDON, Executive Officer

_____
(Date)

JFR: sae
6/16/08

WDR NO. R5-2008-0097

ATTACHMENT A



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2008-0097

FOR

RONEY LAND AND CATTLE COMPANY INC.
AND
7/11 MATERIALS INC.
PINE CREEK GRAVEL OPERATION
VINA
TEHAMA COUNTY

This monitoring and reporting program (MRP) is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

SETTLING POND MONITORING

Pond water samples taken for electrical conductivity (EC) and total dissolved solids (TDS) analysis shall be collected when washing is in progress at the point where wash water enters the first pond. Freeboard shall be recorded for all ponds. (The number of ponds may vary during the season due to the Discharger's management requirements). Electrical conductivity and freeboard shall be determined according to the following schedule:

Constituent/Parameter	Units	Sampling Frequency
Freeboard[1]	Feet, 0.1 Feet	weekly
Electrical Conductivity	umhos/cm	bi-annually[2]
TDS	mg/L	bi-annually[2]
General Minerals	mg/L	annually[3]

[1]If the settling pond is segmented or if a series of ponds are created, freeboard shall be measured and reported for each segment or pond.
[2]Samples to be collected in March and September and results reported in April and October of each year.
[3]At a minimum, general minerals should include Na, K, Ca, Mg, Cl, SO_4, NO_3 , Fe, and Mn. Samples to be collected in September and results reported in October of each year.

SUPPLY WATER MONITORING

A sample of water from the supply well shall be taken directly from the closest discharge point to the well prior to any domestic or industrial use. Electrical conductivity shall be determined for the sample according to the following schedule:

Constituent/Parameter	Units	Sampling Frequency
Electrical Conductivity	umhos/cm	bi-annually[1]
TDS	mg/L	bi-annually[1]
General Minerals	mg/L	annually[2]

[1]Samples to be collected in March and September and results reported in April and October of each year.
[2]At a minimum, general minerals should include Na, K, Ca, Mg, Cl, SO_4, NO_3 , Fe, and Mn. Samples to be collected in September and results reported in October of each year.

REPORTING

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements.

Monthly monitoring reports shall be submitted to the Regional Board by the **first day of the second month** following data collection. All reports shall be signed by persons identified in Standard Provisions and Reporting Requirements for waste discharge to land, 1 March 1991, Section B.3. Any person signing a document under this Section shall make the following certification:

> "I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment".

The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Board.

Upon written request of the Regional Board, the Discharger shall submit a report to the Regional Board by 30 January of each year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with the waste discharge requirements. The Discharger shall implement the above monitoring program as of the date of this Order.

_____
PAMELA C. CREEDON, Executive Officer

_____
(Date)

JFR: sae
6/16/08

INFORMATION SHEET

ORDER NO. R5-2008-0097
RONEY LAND AND CATTLE COMPANY, INC.
AND 7/11 MATERIALS, INC.
PINE CREEK GRAVEL OPERATION
TEHAMA COUNTY

Roney Land and Cattle Company, Inc. and 7/11 Materials Inc. submitted a Report of Waste Discharge, dated 26 June 2007 for a discharge of gravel wash water from an existing gravel extraction facility to ponds. The application was deemed incomplete on 10 July 2007. Additional information was submitted on 27 September 2007, 7 December 2007 and 24 March 2008. The application was deemed complete on 24 March 2008. The facility is approximately six miles southeast of Vina, east of Highway 99E on the south side of Pine Creek along the Tehama County, Butte County boundary in sections 35 and 36, T24N, R1W, MDB&M (Latitude 39.86417° N, Longitude 121.95323° W). The property on which the mining and processing occurs (Assessor's Parcel Numbers 79-070-09 and 79-070-11) is owned by Roney Land and Cattle Company, Inc. The gravel extraction process is operated by the leaseholder 7/11 Materials Inc.

The Pine Creek gravel operation on the Roney property was originally operated by Big Windy Mining and Gravel. Tehama County Planning Department approved a Negative Declaration for Big Windy Mining and Gravel Inc. on 21 April 1994. The project description in the Initial Study was, "To establish a gravel extraction operation including screening and crushing in a UA-AP (Upland Agriculture-Agriculture Preserve) and EA-AP, (Exclusive Agriculture-Agriculture Preserve) zoning districts. The project site would be south of Pine Creek along the Tehama County Butte County line. The application is to extract and process up to 220,000 cubic yards of gravel annually. The property is located southeast of Vina, described as a portion of the south half of sections 35 and 36, T.24.N. R.1.W., MDB&M, Assessors Parcel Number 79-070-09 and 79-070-11, approx. 507 acres." Big Windy Mining and Gravel Inc. held a lease from the property owner Roney Land and Cattle Company, Inc. The lease was acquired by 7/11 Materials Inc. in 2003.

The site is bounded on the north by Pine Creek, an intermittent stream which discharges to the Sacramento River south of Chico. Pine Creek is separated from the pond by a berm approximately 15 feet wide and whose top are approximately 8 feet above the level of Pine Creek, and 4 feet above the level of land adjacent to the pond. Tehama County Use Permit 94-2 prohibits gravel extraction within 150 feet of Pine Creek.

Soil in the project area is described as sandy silt with some clay, underlain by fine gravel through large cobbles. The parent material is identified as Vina Loam.

The gravel processing area includes conveyors, screens, a crusher and wash plant. The process is as follows: Excavated material is trucked to the processing area and dumped into the feed hopper of the belt conveyor which takes the un-graded material to the first screen. This screen removes the over 1" (cobbles) which are sent to the crusher. The 1" minus fraction is sent to the crusher or the wash plant. Crushed rock is further graded into ¾", ½",

and ¼" minus, or blended for base rock. The natural (uncrushed) material is conveyed to a "pant leg" which allows material to be sent either to the wash plant or to a area where it is blended with crushed rock for base rock. Overall, approximately 25% of the material is washed. Maximum depth of excavation is 20 feet. According to information submitted by the Discharger through his consultant, the material processing rates are approximately 2,000 to 3,000 tons per day, and the quantity of overburden and soil removed is approximately 1,500 to 2,000 yards per day.

Gravel wash consumes approximately 1,200 gpm of water from an on-site well adjacent to the processing area. Maximum water usage is estimated to be 576,000 gallons per day. An analysis of water from the on-site well indicates that the water is of good quality with neutral pH and low total dissolved solids (TDS) and hardness. The analysis of the well water and pond water as supplied by the Discharger is as follows:

Constituent	**Well**	**Pond**
Total Alkalinity	94 mg/L	83 mg/L
Bicarbonate as $CaCO_3$	94 mg/L	62 mg/L
Carbonate as $CaCO_3$	ND	20 mg/L
Hydroxide as $CaCO_3$	ND	ND
Chloride	1.8 mg/L	3.2 mg/L
Fluoride	ND	0.10 mg/L
Nitrate as NO_3	6.8 mg/L	ND
Sulphate as SO_4	4.5 mg/L	2.6 mg/L
Specific Conductance	200 umhos/cm	160 umhos/cm
Methylene Blue Act. Subs.	ND	ND
Ca	19 mg/L	14 mg/L
Mg	11 mg/L	9.8 mg/L
K	1.3 mg/L	1.3 mg/L
Na	7.7 mg/L	7.6 mg/L
Hardness as $CaCO_3$	93 mg/L	76 mg/L
pH	7.01	8.91
TDS	140 mg/L	150 mg/L
TSS	ND	15 mg/L
Hg	ND	ND
Al	ND	370 ug/L
Ba	ND	ND
Bo	ND	ND
Be	ND	ND
Cr	ND	ND
Cu	ND	240 ug/L
Fe	ND	ND
Mn	ND	ND
Ni	ND	ND

Constituent	Well	Pond
Ag	ND	ND
Zn	270	ND
Sb	ND	ND
As	ND	ND
Cd	ND	ND
Pb	ND	ND
Se	ND	ND
Va	24 ug/L	26 ug/L
Th	ND	ND

The original reclamation plan included recycling of pond water, however, recycling has not been implemented.

A review of groundwater data from wells in the vicinity of the project area indicate that the direction of groundwater flow is to the southwest with a gradient of 0.0023 ft/ft.

Gravel wash water is discharged to a large settling pond to the west of the processing area. The pond is presently divided into three sections by internal berms and its area is approximately 15 acres in total. It has been the Discharger's practice to drain accumulated surface water from the adjoining reclaimed areas to the east, into the pond as required, usually in late winter/early spring. The purpose of this practice is to create optimum conditions for re-vegetation of the reclaimed areas.

The original reclamation plan submitted by Big Windy Mining and Gravel Inc. in April 1994, called for the removal of 220,000 cubic yards of gravel per year over the estimated 30 year life of the project. The project is divided into two phases, the first of which includes the western half of the property in Section 35, and the second on the eastern half in Section 36. The project is presently in Phase 1. The reclamation plan stated that the lowest mined area would become a wetland, and that the remaining areas would be returned to upland agriculture. All slopes would be graded to 3:1 or flatter. Conditions of Use Permit 94-2 issued by Tehama County Planning to Big Windy Mining and Gravel Inc. for the subject project include prohibitions for the mining of more than 220,000 cubic yards per year of gravel, and excavating closer than 150 feet from top of the south bank of Pine Creek. The Discharger has been required by Tehama County Planning to submit a revised reclamation plan.

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Fueling is accomplished by means of a trailer mounted 750 gallon tank which is exempt from regulation under the APSA. The Discharger reports that, apart from the mobile fuel storage referenced above, only minor quantities of lubricants are stored on site.

All domestic waste generated at the site is discharged to portable toilets.

The discharge is within the Red Bluff Hydrologic Area (No. 504.20) as depicted on interagency hydrologic maps prepared by the Department of Water Resources (DWR) in August 1986. Surface water drainage is to Pine Creek, which is tributary to the Sacramento River.

The average annual precipitation at the site is approximately 22.5 inches. The average annual pan evaporation is approximately 68 inches.

Due to the implementation of Best Practicable Treatment and Control at the site, no surface or groundwater water quality degradation is anticipated and groundwater-monitoring wells are not required, at this time. The project is not expected to have an impact on TDS or increase the electrical conductivity (EC) of the ground or surfaces waters of the site. Soils and ground and surface waters in the region generally have low salt content. In addition, the material being mined consists of alluvial deposits well washed by the Sacramento River. While evaporation from the washing process concentrates TDS, wash water is entrained with the processed sand and gravel taking the salt load with it. Because the project is not expected to increase TDS or increase the EC of the ground or surface waters at the site, a salinity evaluation and minimization plan is not required from the Discharger at this time. EC and TDS monitoring are required.

Surface water drainage is to Pine Creek a tributary to the Sacramento River.

JFR: sae
6/16/08