CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2007-0109

WASTE DISCHARGE REQUIREMENTS FOR RANCHO MURIETA COMMUNITY SERVICES DISTRICT VAN VLECK RANCH RECYCLED WATER REUSE AREAS SACRAMENTO COUNTY

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

1. Rancho Murieta Community Services District (hereafter Discharger) submitted a Report of Waste Discharge (RWD) on 22 May 2007 to apply for Waste Discharge Requirements (WDRs) for the reuse of recycled water produced by the Rancho Murieta wastewater treatment facility (WWTF) at the Van Vleck Ranch. Supplemental information was submitted on 1 June 2007.

2. WDRs Order No. 5-01-124, adopted by the Regional Water Board on 11 May 2001, prescribes requirements for wastewater treatment and storage at the Rancho Murieta WWTF and the use of tertiary disinfected recycled water on two golf courses operated by the Rancho Murieta Country Club. The WWTF is depicted on Attachment A, which is attached hereto and made part of this Order by reference.

3. On 26 January 2006, the Regional Water Board adopted Cease and Desist Order (CDO) No. R5-2006-0001 for the Rancho Murieta Community Services District (RMCSD) and Rancho Murieta Country Club. Among other compliance issues, the CDO cited inadequate storage and disposal capacity at the RMCSD WWTF, and imposed new influent flow limitations based on the facility's then-current storage and disposal capacity. The CDO authorizes the Executive Officer to increase the influent flow limitation to the full design storage and disposal capacity if and when RMCSD disposes of excess wastewater currently in storage at the WWTF.

4. RMCSD and Van Vleck Ranching and Resources, Inc. have entered into an agreement whereby RMCSD will supply tertiary disinfected wastewater for irrigation of pasture on portions of the Van Vleck Ranch, thereby reducing the volume of wastewater in storage at the WWTF. This Order prescribes requirements for the use of recycled water at the Van Vleck Ranch.

5. The Van Vleck Ranch recycled water reuse areas, which are owned by Van Vleck Ranching and Resources, Inc., are located at 7897 Van Vleck Road near Rancho Murieta in Sacramento County. The reuse areas are in Sections 3, 9, 10, and 11, T7N, R8E, MDB&M (Assessor's Parcel Nos. 128-0080-007 and 128-0080-068), as shown on Attachment B, which is attached hereto and made part of this Order by reference. RMCSD has obtained an easement for the recycled water use areas to apply recycled water for irrigation.

6. RMCSD will manage the treatment, distribution and use of recycled water on the reuse areas. RMCSD's use of recycled water will be coordinated with the Van Vleck ranch manager to allow for periodic grass cutting and cattle rotation.

7. This Order allows the reuse of recycled water at the Van Vleck Ranch for a limited term only (through 31 December 2009) in order to be consistent with the easements as granted by the Van Vleck Ranch to RMCSD. If the Discharger wishes to continue the discharge beyond that date, either this Order or WDRs Order No. 5-01-124 must be revised to regulate the discharge.

Proposed Discharge

8. The RWD states that recycled water will be reused on approximately 90 acres of pastureland on the Van Vleck Ranch. As shown on Attachment B, three separate reuse areas will receive the recycled water: Pasture 1 (49 acres), Pasture 2 (25 acres), and Pasture 3 (22 acres).

9. Recycled water supplied to the reuse areas will be treated to tertiary standards using oxidation, dissolved air flotation, and filtration. Tertiary effluent will be disinfected to achieve a 7-day median total coliform concentration of no more than 2.2 MPN/100 mL using chlorine. The RMCSD WWTF is regulated under WDRs Order No. 5-10-124 which prescribes requirements for the treatment, including effluent limitations.

10. Under Revised Monitoring and Reporting Program No. 5-01-124, RMCSD is required to monitor the treatment process and effluent quality. Additional monitoring was performed in May 2007 to support the RWD. The following table summarizes recent effluent monitoring results for RMCSD's tertiary disinfected effluent.

Constituent	Units	Analytical Result [1]
Total coliform organisms	MPN/100mL	<1.8 [2]
Total dissolved solids	mg/L	270 to 330 [2]
pH	Std. Unit	6.6 to 7.0 [2]
Total Kjeldahl nitrogen	mg/L	1.2 to 2.0 [2]
Ammonia nitrogen	mg/L	0.50
Nitrate nitrogen	mg/L	2.7 to 12 [2]
Chloride	mg/L	66
Sulfate	mg/L	100
Sodium	mg/L	49
Hardness as $CaCO_3$	mg/L	130

Constituent	Units	Analytical Result [1]
Alkalinity (all bicarbonate)	mg/L	36
Boron	ug/L	290

[1] Based on results for a single sample unless otherwise indicated.
[2] Based on results for three or more samples.

11. Recycled water will be applied to the pastureland via a temporary aboveground spray irrigation system. The irrigation system will be supplied by the WWTF equalization basin via an existing pump station that currently serves one of the Rancho Murieta Country Club golf courses. A dedicated flow meter will measure flows to the reuse areas.

12. Additional pumps used to distribute recycled water at the reuse areas will be equipped with over-current alarms. If a pipe should fail, the over-current alarm will automatically turn off the affected pump.

13. The approximate alignment of the main irrigation pipeline is depicted on Attachment B. All recycled water conveyance lines and valves will be clearly marked indicating that recycled water is being used.

14. The three reuse areas are graded to drain and collect tailwater at the bottom of the fields. Pastures 1 and 2 are drained by culverts in the northwest corner of each pasture and are connected to two other culverts. Slide gates will be installed in each culvert or the culverts will be otherwise blocked to prevent discharge of recycled water to a drainage ditch along the southern boundary of the WWTF that discharges to the Cosumnes River. Additionally, small soil berm will be constructed along the southwestern edge of Pasture 3 to prevent overflow from an existing topographic depression into the neighboring creek.

15. Tailwater generation will be minimized by frequent inspections during periods of irrigation, and irrigation will only occur during normal RMCSD operating hours.

16. There are no nearby residences, public roads, or public lands. Access to the reuse areas will be further controlled by existing barbed wire fences. The RWD states that the reuse areas are at least 50 feet from the Van Vleck Ranch property line.

17. The RWD indicates that the pasture grasses will demand 40 inches of irrigation water during a normal year, or approximately 215 acre-feet. The reuse areas will generally not be irrigated between mid-October and mid-April, and approximately 5 to 8 inches of irrigation water will be required each month during a typical dry season.

18. The following table summarizes anticipated loading rates to the reuse areas for total nitrogen and dissolved solids (TDS). The loading rates were calculated based on

effluent data from a single monitoring event in 2007 and an annual recycled water irrigation rate of 40 inches.

Constituent	Loading Rate (lbs/acre/year)
Total nitrogen	18
TDS	2,400

Because of the advanced treatment processes employed at the WWTF, biochemical oxygen demand loadings are expected to be minimal. The projected BOD loading rate is below the loading rate that typically causes objectionable odors and is unlikely to mobilize constituents in the subsurface. Total nitrogen loading rates will be below the demand of the existing vegetation and therefore should not impact groundwater quality.

Site Specific Conditions

19. Average annual rainfall for Rancho Murieta is approximately 25 inches per year, and the 100-year return total annual rainfall is approximately 45 inches per year.

20. The average bare soil evapotranspiration rate for Rancho Murieta is approximately 57 inches per year.

21. The two northern reuse areas are relatively flat, with slopes of up to two percent. The southern reuse area has moderate slopes ranging from two to 15 percent.

22. Soils at the reuse areas are characterized by the Soil Conservation Service as Sailboat silt loam (moderately slow permeability) and Vleck gravelly loam (slow permeability due to shallow claypan and cemented hardpan).

23. Based on Flood Insurance Rates Maps published by the Federal Emergency Management Agency, the majority of the proposed reuse areas are outside the 100-year flood zone. A portion of the southern end of the 22-acre reuse area is in the 100-year flood zone of Arkansas Creek (Attachment B).

24. No hydrogeologic investigation has been conducted at the reuse areas. However, WWTF monitoring wells OW1, OW2, and MW2 are near the northern boundary of the two northern reuse areas. Based on recent groundwater monitoring data for the WWTF, the shallow groundwater gradient is generally towards the southwest. Wells OW1, OW2, and MW2, therefore, are downgradient of the WWTF and cross gradient of the proposed reuse areas. Selected groundwater monitoring data for the first quarter of 2007 are summarized below.

	Analytical Result [1] (mg/L except as noted)		
Constituent	OW1	OW2	MW2
TDS	860	703	3,200
Nitrate nitrogen	<0.5	0.43	5.9
Chloride	111	93	116
Sodium	94	57	123
Sulfate	507	377	2,130
Iron	17	0.30	0.250
Manganese	1.5	1.5	1.1
Total coliform organisms, MPN/100 mL	<1.8	318	29
pH, standard units	3.98	3.96	4.83

[1] Average of three monthly results.

The low pH is typical of these wells and is likely a natural phenomenon. The extreme variations in overall salinity appear to be primarily due to the high concentration of sulfate in MW2.

Basin Plan, Beneficial Uses and Regulatory Considerations

25. The *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition*, (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board. Pursuant to Section 13263(a) of the California Water Code (CWC), waste discharge requirements must implement the Basin Plan.

26. Surface water drainage is to the Cosumnes River. The beneficial uses of the Cosumnes River, as stated in the Basin Plan, are municipal supply, agricultural supply; water contact recreation; noncontact water recreation; warm freshwater habitat, cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; and wildlife habitat.

27. The beneficial uses of underlying groundwater are municipal and domestic water supply; agricultural supply; industrial service supply; and industrial process supply.

28. The Basin Plan encourages water recycling.

29. The Basin Plan establishes numerical and narrative water quality objectives for surface water and groundwater within the basin, and recognizes that water quality objectives are achieved primarily through the Regional Water Board's adoption of waste discharge

requirements and enforcement orders. Where numerical water quality objectives are listed, these are limits necessary for the reasonable protection of beneficial uses of the water. Where compliance with narrative water quality objectives is required, the Regional Water Board will, on a case-by-case basis, adopt numerical limitations in orders, which will implement the narrative objectives to protect beneficial uses of the waters of the state.

30. The Basin Plan includes a water quality objective for chemical constituents that, at a minimum, requires waters designated as domestic or municipal supply to meet the maximum contaminant levels (MCLs) specified in the following provisions of Title 22, California Code of Regulations (CCR): Tables 64431-A (Inorganic Chemicals) and 64431-B (Fluoride) of Section 64431, Table 64444-A (Organic Chemicals) of Section 64444, and Tables 64449-A (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits) and 64449-B (Secondary Maximum Contaminant Levels-Rangers) of Section 64449. The Basin Plan's incorporation of these provisions by reference is prospective, and includes future changes to the incorporated provisions as the changes take effect. The Basin Plan recognizes that the Regional Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.

31. The Basin Plan contains narrative water quality objectives for chemical constituents, tastes and odors, and toxicity. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants animals, or aquatic life. The chemical constituent objective requires that groundwater shall not contain chemical constituents in concentrations that adversely affect beneficial uses. The tastes and odors objective requires that groundwater shall not contain tastes or odors producing substances in concentrations that cause nuisance or adversely affect beneficial uses.

32. Section 13241 of the Water Code requires the Regional Water Board to consider various factors, including economic considerations, when adopting water quality objectives into its Basin Plan. Water Code Section 13263 requires the Regional Water Board to address the factors in Section 13241 in adopting waste discharge requirements. The State Board, however, has held that a regional water board need not specifically address the Section 13241 factors when implementing existing water quality objectives in waste discharge requirements because the factors were already considered in adopting water quality objectives. These waste discharge requirements implement adopted water quality objectives. Therefore, no additional analysis of Section 13241 factors is required.

33. Under the "Antidegradation" section, the attached Information Sheet lists the various waste constituents identified thus far as fitting the restriction of the Findings along with limits of each constituent necessary to maintain beneficial uses known to be adversely affected at certain concentrations of the waste constituent in groundwater. The listing identifies the constituent, the beneficial use, and its associated limit, as well as the technical reference for the limit. Some limits become less restrictive when the water supply is limited to certain applications of a beneficial use, but that requires additional

factual information. Groundwater limitations for each constituent reflect the most restrictive listed limit for the waste constituent, except if natural background quality is greater, in which case background becomes the limitation.

Groundwater Degradation

34. State Water Resources Control Board (State Water Board) Resolution No. 68-16 (hereafter Resolution No. 68-16 or the "Antidegradation Policy") requires the Regional Water 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 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 State Water Board and Regional Water Board policies (e.g., quality that exceeds water quality objectives).

35. The Regional Water Board finds that some degradation of groundwater beneath the recycled water reuse areas is consistent with Resolution No. 68-16 provided that:

    a. The degradation is confined within a specified boundary;

    b. The Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating best practicable treatment and control (BPTC) measures;

    c. The degradation is limited to waste constituents typically encountered in municipal wastewater as specified in the groundwater limitations in this Order; and

    d. The degradation does not result in water quality less than that prescribed in the Basin Plan.

36. Some degradation of groundwater by some of the typical waste constituents released with discharge from a municipal wastewater utility after effective source control, treatment, and control is consistent with maximum benefit to the people of California. The technology, energy, water recycling, and waste management advantages of municipal utility service far exceed any benefits derived from a community otherwise reliant on numerous concentrated individual wastewater systems, and the impact on water quality will be substantially less. Degradation of groundwater by constituents (e.g., toxic chemicals) other than those specified in the groundwater limitations in this Order, and by constituents that can be effectively removed by conventional treatment (e.g., total coliform bacteria) is prohibited. When allowed, the degree of degradation permitted depends upon many factors (i.e., background water quality, the waste constituent, the beneficial uses and most stringent water quality objective, source control measures, and waste constituent treatability).

37. Economic prosperity of local communities and associated industry is of benefit to the people of California, and therefore sufficient reason exists to accommodate some groundwater degradation around the recycled water reuse areas, provided that the

terms of the Basin Plan are met. It is noted that RMCSD's only method of wastewater disposal is through water recycling.

Treatment and Control Practices

38. RMCSD provides treatment and control of the discharge to Van Vleck Ranch that incorporates:
    a. Technology for tertiary treatment and disinfection of municipal wastewater;
    b. Application of wastewater at agronomic application rates; and
    c. Certified operators to assure proper operation and maintenance of the WWTF and reuse areas.

39. This Order establishes groundwater limitations for the recycled water reuse that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan. Because of the high quality effluent and the short-term nature of the discharge, groundwater monitoring is not required. If the Discharger subsequently obtains WDRs for a long-term discharge, groundwater monitoring may be appropriate.

Water Recycling

40. State Water Board Resolution No. 77-1, *Policy with Respect to Water Recycling in California*, encourages recycling projects that replace or supplement the use of fresh water, and *The Water Recycling Law* (CWC Sections 13500-13529.4) declares that utilization of recycled water is of primary interest to the people of the State in meeting future water needs.

41. The California Department of Health Services (DHS) has established statewide water recycling criteria in Title 22 CCR Section 60301 et. seq. (hereafter Title 22). RMCSD will treat the wastewater to tertiary standards and disinfect the effluent per Title 22 requirements.

42. A 1988 Memorandum of Understanding between DHS and the State Water Board on the use of recycled water establishes basic principles relative to the two agencies and the regional water boards. The Memorandum allocates primary areas of responsibility and authority between the agencies and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to use of recycled water.

43. Section 60323(a) of Title 22 states that no person shall produce or supply recycled water for direct reuse from a proposed water recycling plant unless an engineering report is submitted for review and approval by DHS and the Regional Water Board. Irrigation of pasturelands used for grazing is considered a beneficial reuse. In

May 2007, RMCSD submitted the required Title 22 Engineering Report to DHS and the Regional Water Board. The Title 22 Engineering Report was approved by DHS on 20 June 2007.

44. DHS requires that the American Water Works Association (AWWA) Guidelines for Distribution of Non-Potable Water and Guidelines for the On-site Retrofit of Facilities Using Disinfected Tertiary Recycled Water be implemented in design and construction of recycling equipment. The Title 22 Engineering Report submitted by RMCSD describes specific design details for the irrigation system that were approved by DHS on 20 June 2007.

Other Regulatory Considerations

45. The State Water Board adopted Order No. 97-03 DWQ (General Permit No. CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. Industrial Storm Water permitting requirements do not apply to facilities irrigating agricultural lands with recycled water, therefore the Discharger is not required to apply for coverage under the NPDES general permit for storm water.

46. On 27 June 2007, the Sacramento County Department of Environmental Review and Assessment issued an emergency exemption pursuant to Section 15269 of the California Environmental Quality Act (CEQA) Guidelines for a Conditional Use Permit for Van Vleck Ranching and Resources, Inc. for water recycling at the reuse areas. The exemption was based on the Governor's proclamation of a state of emergency due to continued drought conditions in Sacramento County

47. On 9 July 2007, the Sacramento County Project Planning Commission recommended that the County Board of Supervisors approve a Use Permit for the reuse areas for a maximum of 75 days during the months of August through October 2007. Subsequently, on 24 July 2007, the Sacramento County Board of Supervisors approved the Use Permit. The Use Permit is temporary and will expire 90 days after issuance, on or about 31 October 2007. The Discharger intends to obtain a subsequent Use Permit that would be effective through December 31, 2009. It is therefore appropriate to require that the Discharger provide proof of the appropriate approvals from the County for any recycled water use that would occur after the expiration of the current Use Permit.

48. RMCSD is the lead agency for purposes of CEQA. The Regional Water Board is a responsible agency with respect to CEQA. On 19 July 2007, RMCSD certified a Mitigated Negative Declaration for the recycled water irrigation project to comply with CEQA requirements. Based on features incorporated into the project design, no water quality-related mitigation measures were included in this Mitigated Negative Declaration. This Order requires compliance with certain measures and conditions

intended to minimize or prevent water quality impacts. RMCSD, as the lead agency, is responsible for ensuring compliance with all mitigation measures identified in the Mitigated Negative Declaration.

49. Section 13267(b) of the CWC states: *"In conducting an investigation specified in subdivision (a), the regional water board may require that any person who has discharged, discharges, or is suspected of 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 discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the 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 water 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."*

50. The technical reports required by this Order and the attached Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. RMCSD owns and operates the facility that produces the recycled water, and has an easement for application of recycled water on the proposed reuse areas. RMCSD has accepted all responsibility for compliance with this Order.

51. The discharge authorized herein is exempt from the requirements of Title 27 CCR Section 20005 et seq. The exemption, pursuant to Title 27 CCR Section 20090(a), is based on the following:

    a. The waste consists primarily of domestic wastewater; and

    b. The waste discharge requirements are consistent with water quality objectives.

    c. The treatment facilities described herein are associated with a municipal wastewater treatment plant.

52. Pursuant to CWC Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.

Public Notice

53. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, were considered in establishing the following conditions of discharge.

54. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been

provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

55. In a public meeting, all comments pertaining to the discharge were heard and considered.

IT IS HEREBY ORDERED that, pursuant to Sections 13263 and 13267 of the California Water Code, Rancho Murieta Community Services District and its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

[Note: Other prohibitions, conditions, definitions, and some methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated 1 March 1991.]

A. Discharge Prohibitions:

1. The use of recycled water for irrigation is prohibited unless and until all reuse area improvements described in Finding Nos. 11 though 14 (inclusive) and the approved Title 22 Engineering Report are completed, the Discharger has submitted a certified report documenting that the improvements are complete and fully operational, and the Executive Officer has issued written approval of that report.

2. Discharge of wastes to surface waters or surface water drainage courses is prohibited.

3. Discharge of waste classified as ‘hazardous’, as defined in Sections 2521(a) of Title 23 CCR Section 2510, et seq., (hereafter Chapter 15), or ‘designated’ as defined in CWC Section 13173, is prohibited.

4. Discharge or release of wastewater (including irrigation tailwater) outside of the recycled water reuse areas is prohibited.

5. The discharge of recycled water after 31 October 2007 is prohibited unless the Discharger submits proof that Sacramento County has issued a new Use Permit for the application of recycled water to the reuse areas described in this Order.

B. Discharge Specifications:

1. Crops (which may include pasture grasses and native grasses) shall be grown on the reuse areas, and cropping activities shall be sufficient to take up all of the nitrogen applied, including any fertilizers and manure.

2. The volume of recycled water applied to the reuse areas on any single day shall not exceed reasonable agronomic rates based on the vegetation grown, pre-discharge soil moisture conditions, and weather conditions.

3. Hydraulic loading of recycled water and supplemental irrigation water shall be at reasonable agronomic rates designed to maximize uptake and breakdown of waste constituents in the root zone and minimize the percolation of waste constituents below the root zone. Recycled water shall be applied as described in Finding No. 17.

4. Irrigation of the reuse areas shall occur only when appropriately trained RMCSD personnel are on duty, and the reuse areas shall be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order.

5. Irrigation using recycled water shall not be performed within 24 hours of a forecasted storm, during a storm, within 24 hours after any measurable precipitation event, or when the ground is saturated.

6. Storm water runoff from the reuse areas may only be released to surface water drainage courses if the discharge is in compliance with Discharge Specification B.5.

7. The discharge of recycled water shall remain within the designated reuse areas (as described in Finding No. 5 and Attachment B) at all times.

8. The discharge of recycled water shall be managed to minimize erosion.

9. The recycled water areas shall be managed to prevent breeding of mosquitoes. In particular:
   a. There shall be no standing water 48 hours after irrigation ceases;
   b. Tailwater ditches must be maintained essentially free of emergent, marginal, and floating vegetation; and
   c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled wastewater.

10. Any tailwater ditches used to contain runoff shall be designed and maintained so that all tailwater flows to a single collection point in each reuse area.

11. The discharge shall not cause a condition of pollution or nuisance as defined by CWC Section 13050.

12. Objectionable odors originating at the reuse areas as a result of recycled water use shall not be perceivable beyond the limits of the reuse areas.

13. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of the Groundwater Limitations.

C. Effluent Limitations

1. Reclaimed water discharged to the reuse areas shall comply with the following limits for total coliform organisms:

   a. The median concentration of total coliform bacteria shall not exceed an MPN of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed.

   b. The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.

   c. The number of total coliform bacteria shall never exceed an MPN of 240 total coliform bacteria per 100 milliliters.

2. The turbidity of the WWTF filter effluent shall not exceed 2.0 NTU as a daily average; shall not exceed 5 NTU more than 5 percent of the time during a 24 hour period; and shall never exceed 10 NTU.

D. Recycled Water Specifications

1. RMCSD shall treat the wastewater so that it complies with Title 22 CCR, Section 60301.230 (“Disinfected Tertiary Recycled Water”).

2. Recycled water shall be used in compliance with Title 22, Article 3 (“Uses of Recycled Water”).

3. RMCSD shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.

4. Application of recycled water shall comply with the following setback requirements:

Setback Definition [1]	Minimum Irrigation Setback (feet)
Edge of recycled water reuse areas to property boundary	25
Edge of recycled water reuse areas to public roads	50
Edge of recycled water reuse areas to irrigation wells	100
Edge of recycled water reuse areas to domestic wells	100

Setback Definition [1]	Minimum Irrigation Setback (feet)
Edge of recycled water reuse areas to manmade or natural surface water drainage course [2] or spring	25

[1] As defined by the wetted area produced during irrigation.

[2] Excluding ditches used exclusively for tailwater return.

5. Public contact with recycled wastewater at the reuse areas shall be controlled through use of fences and cautionary signs, and/or other appropriate means. Perimeter warning signs indicating that recycled water is in use shall be posted at adequate intervals along the property boundary and at each access road entrance. The size and contents of these signs shall be as described in Section 60310 of Title 22.

6. Recycled water controllers, valves, and similar appurtenances shall be affixed with recycled water warning signs, and shall be equipped with removable handles or locking mechanisms to prevent public access or tampering. The contents of the signs shall conform to Section 60310 of Title 22, and the DHS District Engineer's requirements. Each sign shall be in English and Spanish languages.

7. Quick couplers and sprinkler heads, if used, shall be of a type, or secured in a manner, that permits operation only by authorized personnel. Hose bibs and other unlocked valves shall not be accessible to the public.

8. Any connection between the recycled water conveyance system and any potable water conveyance system, groundwater supply well, or surface water supply source for the purpose of supplementing recycled water shall be equipped with a DHS-approved backflow prevention device.

9. Direct or windblown spray of recycled water shall be confined to the reuse areas, and shall not enter surface watercourses.

10. Spray irrigation of recycled water is prohibited when wind velocities exceed 30 mph.

E. Groundwater Limitations:

1. Release of waste constituents from the use of recycled water shall not cause groundwater under and beyond the reuse areas to:

   a. Contain any of the following constituents in concentration greater than as listed or greater than ambient background quality, whichever is greater:

Constituent	Units	Limitation
Ammonia (as NH_4)	mg/l	1.5
Boron	mg/L	0.7
Chloride	mg/L	106
Iron	mg/L	0.3
Manganese	mg/L	0.05
Sodium	mg/L	69
Total Coliform Organisms	MPN/100 mL	<2.2
Total Dissolved Solids [1]	mg/L	450
Total Nitrogen	mg/L	10
Nitrite (as N)	mg/L	1
Nitrate (as N)	mg/L	10
Bromoform	ug/L	4
Bromodichloromethane	ug/L	0.27
Chloroform	ug/L	1.1
Dibromochloromethane	ug/L	0.37

[1] A cumulative impact limit that accounts for several dissolved constituents in addition to those listed here separately [e.g., alkalinity (carbonate and bicarbonate), calcium, hardness, phosphate, and potassium].

b. Exhibit a pH of less than 6.5 or greater than 8.4 pH units

c. Impart taste, odor, or color that creates nuisance or could impair any beneficial use.

F. Provisions

1. The following reports shall be submitted pursuant to CWC Section 13267 and shall be prepared as described by Provision E.2.

   a. By **15 August 2007***,* the Discharger shall submit and implement an *Operation and Management Plan* (O&M Plan) that addresses operation of the reuse areas. At a minimum, the *O&M Plan* shall provide: a map that defines all the areas where recycled water is used, including berms or other features designed to prevent recycled water from running off the reuse areas; as-built irrigation system plans; complete operation and maintenance procedures for the reuse areas; and specific procedures for inspections and system adjustments or modifications to be made immediately upon discovery of any malfunction that threatens to cause a violation of this Order. A copy of the *O&M Plan* shall be

kept at the facility for reference by operating personnel and they shall be familiar with its contents.

2. Prior to any continued discharge after expiration of the current Use Permit, the Discharger shall submit proof that Sacramento County has issued a new Use Permit for the application of recycled water to the reuse areas.

3. In accordance with California Business and Professions Code Sections 6735, 7835, and 7835.1, engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. All technical reports specified herein that contain workplans for investigations and studies, that describe the conduct of investigations and studies, or that contain technical conclusions and recommendations concerning engineering and geology shall be prepared by or under the direction of appropriately qualified professional(s), even if not explicitly stated. Each technical report submitted by the Discharger shall the professional's signature and/or stamp of the seal.

4. The Discharger shall comply with Monitoring and Reporting Program No. R5-2007-0109, which is part of this Order, and any revisions thereto as ordered by the Executive Officer

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

6. The Discharger shall use the best practicable cost-effective control technique(s) including proper operation and maintenance, to comply with discharge limits specified in this order.

7. As described in the Standard Provisions, the Discharger shall report promptly to the Regional Water Board any material change or proposed change in the character, location, or volume of the discharge.

8. The Discharger shall report to the Regional Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."

9. The Discharger shall submit to the Regional Water Board on or before each compliance report due date, the specified document or, if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, then the Discharge shall state the reasons for such noncompliance and provide an estimate of the date when the Discharger will

be in compliance. The Discharger shall notify the Regional Water Board in writing when it returns to compliance with the time schedule.

10. In the event of any change in control or ownership of the recycled water reuse areas, the Discharger must 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 as Discharger 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 Water Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the new 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.

11. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed herein or by the Executive Officer pursuant to CWC Section 13267. Violations may result in enforcement action, including Regional Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

12. A copy of this Order shall be kept at the WWTF. Key operating personnel shall be familiar with its contents.

13. This Order expires on **31 December 2009**. The Discharger must obtain new waste discharge requirements if they wish to continue the discharge after that date.

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 2 August 2007.

_____
PAMELA C. CREEDON, Executive Officer

ALO: 8/2/07

LATE REVISIONS

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2007-0109
FOR
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
VAN VLECK RANCH RECYCLED WATER REUSE AREAS
SACRAMENTO COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring reclaimed water and reclaimed water reuse areas. This 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.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain of custody form.

Field test instruments (such as those used to test pH and electrical conductivity) may be used provided that:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

TERTIARY EFFLUENT MONITORING

RMCSD shall continue to monitor tertiary effluent in accordance with Revised MRP No. 5-01-24. For the purposes of this MRP, tertiary effluent monitoring shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Turbidity [1]	NTU	Continuous	Daily	Monthly [1]
Total Chlorine Residual	mg/L	Continuous	Daily	Monthly
Total Coliform Organisms [2]	MPN/100 ml	Grab	Daily	Monthly
pH	pH units	Grab	Weekly	Monthly
Total Dissolved Solids	mg/L	Grab	Weekly	Monthly
Sodium	mg/L	Grab	Weekly	Monthly
Chloride	mg/L	Grab	Weekly	Monthly
Nitrate nitrogen	mg/L	Grab	Monthly	Monthly

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Total Kjeldahl nitrogen	mg/L	Grab	Monthly	Monthly

[1] For each day, report the minimum and maximum recorded turbidity, the total amount of time that turbidity exceeded 5 NTU, and the total amount of time that turbidity exceeded 10 NTU.
[2] Using a minimum of 15 tubes or three dilutions.

REUSE AREA MONITORING

The Discharger shall monitor reclamation activities at the reuse areas in accordance with the following. Reuse area monitoring shall be performed daily and the results shall be included in the monthly monitoring report. Erosion, ground saturation, tailwater runoff, and nuisance conditions shall be noted in the report. Reclaimed water shall also be monitored to determine loading rates at the reuse areas.

Parameter	Units	Type of Sample	Monitoring Frequency	Reporting Frequency
Flow from WWTF to each reuse area [1]	gpd and inches/day	Flow Meter Observation	Daily	Monthly
Rainfall	inches	Measurement	Daily	Monthly
Net Acreage Receiving Recycled Water [1]	acres	Calculated	Daily	Monthly
Nitrogen Loading Rate [2]	lbs/ac/month and cumulative lbs/ac/year	Calculated	Monthly	Monthly
Total Dissolved Solids Loading Rate	lbs/ac/month and cumulative lbs/ac/year	Calculated	Monthly	Monthly

[1] Specific reuse areas shall be identified.
[2] Including contributions from applied fertilizer.

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. 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 Water Board.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Water Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the monthly monitoring reports shall include:

1. Results of tertiary effluent monitoring and reuse area monitoring.

2. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format.

3. If requested by staff, copies of laboratory analytical report(s).

B. Annual Report

An Annual Report shall be prepared as the twelfth monthly monitoring report. The Annual Report shall include all monitoring data required in the monthly schedule. The Annual Report shall be submitted to the Regional Water Board by **1 February each year**. In addition to the data normally presented, the Annual Report shall include the following:

1. Tabular and graphical summaries of all data collected during the year.

2. An evaluation of the performance of the WWTF which demonstrates the facility's ability to consistently meet treatment standards for recycled water use as specified in Title 22, Division 4, CCR (Section 60301, et seq.).

3. An evaluation of the reuse areas and discussion of any structural or operational improvements needed for future use of these areas.

4. A discussion of compliance and the corrective action taken.

5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of requirement violations found during the reporting period, and actions taken or planned for correcting noted violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Discharger, or the Discharger's authorized agents, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by:_____
PAMELA C. CREEDON, Executive Officer

_____2 August 2007_____
(Date)

ALO:8/2/07

LATE REVISIONS

INFORMATION SHEET

ORDER NO. R5-2007-0109
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
VAN VLECK RANCH RECYCLED WATER REUSE AREAS
SACRAMENTO COUNTY

Background

Rancho Murieta Community Services District (RMCSD) and Van Vleck Ranching and Resources, Inc. have entered into an agreement whereby RMCSD will supply tertiary disinfected wastewater for irrigation of pasture on portions of the Van Vleck Ranch, thereby reducing the volume of wastewater in storage at the WWTF. The RMCSD WWTF is regulated under WDRs Order No. 5-10-124 which prescribes requirements for the treatment, including effluent limitations.

RMCSD will manage both the distribution and use of recycled water, and irrigation will be coordinated with the ranch manager to allow periodic grass cutting and cattle rotation. Van Vleck Ranching and Resources, Inc. is not named as a co-discharger in this Order because the discharge will not continue past 31 December 2009 and because RMCSD has agreed to accept full responsibility for compliance with this Order. If RMCSD were to apply for WDRs for a long-term discharge, Van Vleck Ranching and Resources, Inc. would likely be named as a co-discharger.

Recycled water will be reused on approximately 90 acres of pastureland on the Van Vleck Ranch. Three separate reuse areas will receive the recycled water: Pasture 1 (49 acres), Pasture 2 (25 acres), and Pasture 3 (22 acres). Recycled water will be pumped from the WWTF equalization basin using an existing pump station to a temporary aboveground supply pipeline and spray irrigation system.

Recycled water supplied to the reuse areas will be treated to tertiary standards using oxidation, dissolved air flotation, and filtration. Tertiary effluent will be disinfected to achieve a 7-day median total coliform concentration of no more than 2.2 MPN/100 mL using chlorine.

Because of the advanced treatment processes employed at the WWTF, biochemical oxygen demand loadings are expected to be minimal. The projected BOD loading rate is below the loading rate that typically causes objectionable odors and is unlikely to mobilize constituents in the subsurface. Total nitrogen loading rates will be below the demand of the existing vegetation and therefore should not impact groundwater quality.

The Sacramento County Department of Environmental Review and Assessment issued an emergency exemption pursuant to Section 15269 of the California Environmental Quality Act (CEQA) Guidelines for a Conditional Use Permit for Van Vleck Ranching and Resources, Inc. for water recycling at the reuse areas for a maximum of 75 days. The exemption was based on the Governor’s proclamation of a state of emergency due to continued drought conditions in Sacramento County. The Sacramento County Board of Supervisors subsequently approved the Use Permit. The Use Permit is temporary and will expire on 31 October 2007.

Proposed Order Terms and Conditions

The antidegradation directives of Section 13000 of the California Water Code require that waters of the State that are better in quality than established water quality objectives be maintained "consistent with the maximum benefit to the people of the State." Waters can be of high quality for some constituents or beneficial uses and not others. Policies and procedures for complying with this directive are set forth in the Basin Plan (including by reference State Water Board Resolution No. 68-16, "Statement of Policy With Respect to Maintaining High Quality Waters in California," or "Antidegradation" Policy).

Resolution 68-16 is applied on a case-by-case, constituent-by-constituent basis in determining whether a certain degree of degradation can be justified. It is incumbent upon the Discharger to provide technical information for the Regional Water Board to evaluate that fully characterizes:

- All waste constituents to be discharged;
- The background quality of the uppermost layer of the uppermost aquifer;
- The background quality of other waters that may be affected;
- The underlying hydrogeologic conditions;
- Waste treatment and control measures;
- How treatment and control measures are justified as best practicable treatment and control;
- The extent the discharge will impact the quality of each aquifer; and
- The expected degree of degradation.

In allowing a discharge, the Regional Water Board must comply with CWC section 13263 in setting appropriate conditions. The Regional Water Board is required to implement the Basin Plan and consider the beneficial uses to be protected along with the water quality objectives essential for that purpose. The Regional Water Board need not authorize the full utilization of the waste assimilation capacity of the groundwater (CWC 13263(b)) and must consider other waste discharges and factors that affect that capacity.

Some degradation of the groundwater for certain constituents is consistent with maximum benefit to the people of California because the technology, energy, and waste management advantages of advanced treatment and water recycling outweigh the environmental impact of a facility that would otherwise rely on percolation for effluent disposal. Economic prosperity of local communities is of maximum benefit to the people of California, and there is therefore sufficient reason to accommodate this wastewater discharge, provided terms of reasonable degradation are defined and met. The proposed Order authorizes some degradation consistent with the maximum benefit to the people of the State.

Groundwater Limitations

The limited groundwater quality information provided in the RWD is not sufficient to determine final groundwater limitations. The groundwater limitations of the proposed Order are limited to those constituents known to be present in the waste, except for trihalomethanes, which are expected to be present in the waste because of chlorine disinfection. An interim groundwater limitation for each constituent was selected in accordance with the most stringent limits set forth in the Basin Plan. The values tabulated below reflect water quality objectives that must be met to maintain specific beneficial uses of groundwater. The most stringent value applies unless it has been demonstrated that background groundwater quality exceeds that value or the beneficial use that is it designed to protect could not exist. For instance, the most stringent limit for TDS (450 mg/L) is based on protection of irrigation supply for the most salt-sensitive crops. If it can be shown that salt-sensitive crops will not be grown due to local climate and/or soil conditions, then the next highest limit applies. In general, the burden of making such a demonstration falls on the discharger.

Constituent	Units	Value	Beneficial Use	Criteria or Justification
Arsenic	ug/L	0.004	MUN [1]	California Public Health Goal [10]
Cadmium	ug/L	0.07	MUN [1]	California Public Health Goal [10]
Chloride	mg/L	106	AGR [2]	Chloride sensitivity on certain crops irrigated via sprinklers [3]
		142	AGR [2]	Chloride sensitivity on certain crops [3]
		250	MUN [1]	Recommended Secondary MCL [4]
		500	MUN [1]	Upper Secondary MCL [4]
Chromium, total	ug/L	50	MUN [1]	Primary MCL [5]
Copper	ug/L	170	MUN [1]	California Public Health Goal [10]
Iron	ug/L	0.3	MUN [1]	Secondary MCL [5]
Lead	ug/L	2	MUN [1]	California Public Health Goal [10]
Manganese	ug/L	0.05	MUN [1]	Secondary MCL [5]
Mercury	ug/L	1.2	MUN [1]	California Public Health Goal [10]
Nickel	ug/L	12	MUN [1]	California Public Health Goal [10]
Sodium	mg/L	69	AGR [2]	Sodium sensitivity on certain crops [3]
Zinc	ug/L	2,000	AGR [2]	Irrigation of crops [3]
		2,100	MUN [1]	USEPA Cancer Risk Estimate [6]
Total Dissolved Solids	mg/L	450[8]	AGR [2]	Salt sensitivity for certain crops [3]
		500	MUN [1]	Recommended Secondary MCL [4]
		1,000	MUN [1]	Upper Secondary MCL [4]
Total Coliform Organisms	MPN/100 ml	Less than 2.2	MUN [1]	Basin Plan

Constituent	Units	Value	Beneficial Use	Criteria or Justification
Trihalomethanes	ug/L	80	MUN [1]	Federal MCL [9]
Bromoform	ug/L	4	MUN [1]	USEPA Cancer Risk Estimate [6]
Bromodichloromethane	ug/L	0.27	MUN [1]	Cal/EPA Cancer Potency Factor [7]
Chloroform	ug/L	1.1	MUN [1]	Cal/EPA Cancer Potency Factor [7]
Dibromochloromethane	ug/L	0.37	MUN [1]	Cal/EPA Cancer Potency Factor [7]
pH	PH Units	6.5 to 8.5	MUN [1]	USEPA Secondary MCL [8]
		6.5 to 8.4	AGR [2]	Irrigation of crops [3]

1 Municipal and domestic supply.

2 Agricultural supply.

3 Ayers, R. S. and D. W. Westcot, Water Quality for Agriculture, Food and Agriculture Organization of the United Nations – Irrigation and Drainage Paper No. 29, Rev. 1, Rome (1985).

4 Title 22, California Code of Regulations (CCR), Section 64449, Table 64449-B.

5 Title 22, CCR, Section 64449, Table 64449-A.

6 USEPA Integrated Risk Information System.

7 Cal/EPA Toxicity Criteria Database (OEHHA).

8 40 Code of Federal Regulations, 143.3.

9 40 Code of Federal Regulations, 141.64.

10 Negligible cancer risk level for drinking water (OEHHA).

Because of the high quality effluent and the short-term nature of the discharge, groundwater monitoring is not required. If the discharger subsequently obtains WDRs for a long-term discharge, groundwater monitoring may be appropriate.

Discharge Prohibitions and Specifications

Most of the Discharge Prohibitions and Discharge Specifications are identical those prescribed for similar discharges of recycled water.

Discharge Specification B.1

Ordinarily, waste discharge requirements for such discharges require that the Discharger grow crops on the reuse areas and ensure that cropping activities are sufficient to take up all of the nitrogen applied, including fertilizers and waste from grazing livestock. The Monitoring and Reporting Program would typically require that the Discharger monitor all sources of nitrogen and calculate monthly and cumulative annual loading rates to demonstrate that agronomic rates for nitrogen have not been exceeded. Contributions from cattle waste are usually considered because waste from grazing cattle can be a significant source of nitrogen. This Order does not require that the Discharger consider nitrogen from grazing cattle only because the discharge is limited to 29 months. Relief from this requirement does not set a precedent, and the requirement would likely be included in any long-term WDRs.

Discharge Specification B.4

Based on the description of the proposed discharge in the RWD, Discharge Specification B.4 states that irrigation of the reuse areas shall occur only when appropriately trained RMCSD personnel are on duty, and requires that the reuse areas be inspected as frequently as necessary to ensure continuous compliance with the requirements of this Order. The Discharger asked that the time limitation be removed to allow around the clock operation. However, both the CEQA Initial Study and the Discharger's approved Title 22 Engineering Report stated that irrigation would take place only when RMCSD personnel are on duty. Because this measure is necessary to protect water quality and public health, it is not appropriate the remove the requirement.

Provisions F.2 and F.13

In accordance with the Discharger's easement agreement, this Order expires on **31 December 2009**, as set forth in Provision F.13. However, the owner of the reuse areas has obtained a Use Permit that allows the discharge through 31 October 2007 only. Therefore, Provision F.2 requires that the Discharger submit proof that is has obtained a new Use Permit if they wish to continue the discharge after that date.

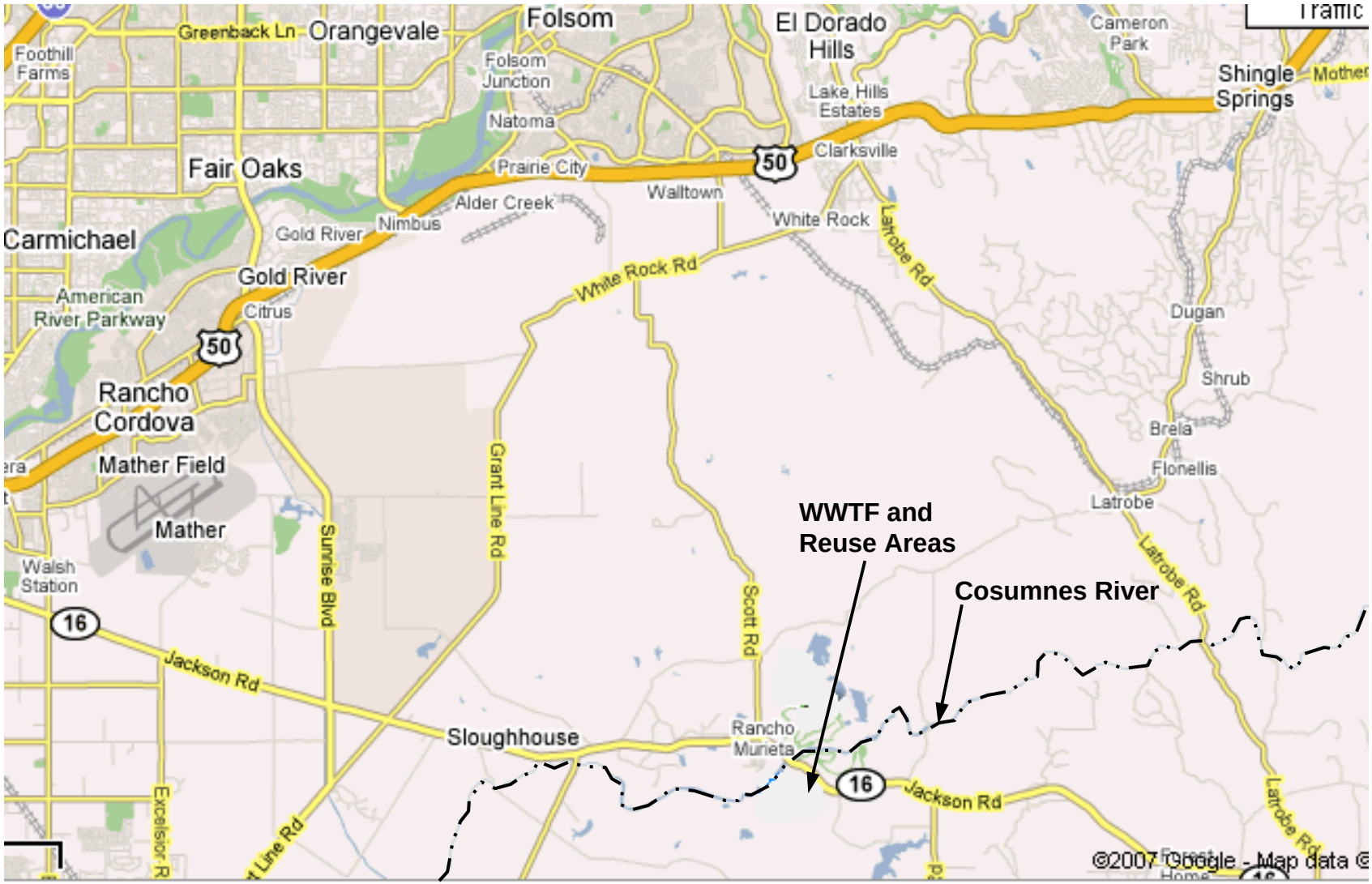
Monitoring Requirements

Section 13267 of the CWC authorizes the Regional Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the state. The proposed Order requires monitoring of tertiary effluent and the reuse areas.

ALO:08/02/07

LATE REVISIONS

ATTACHMENT A



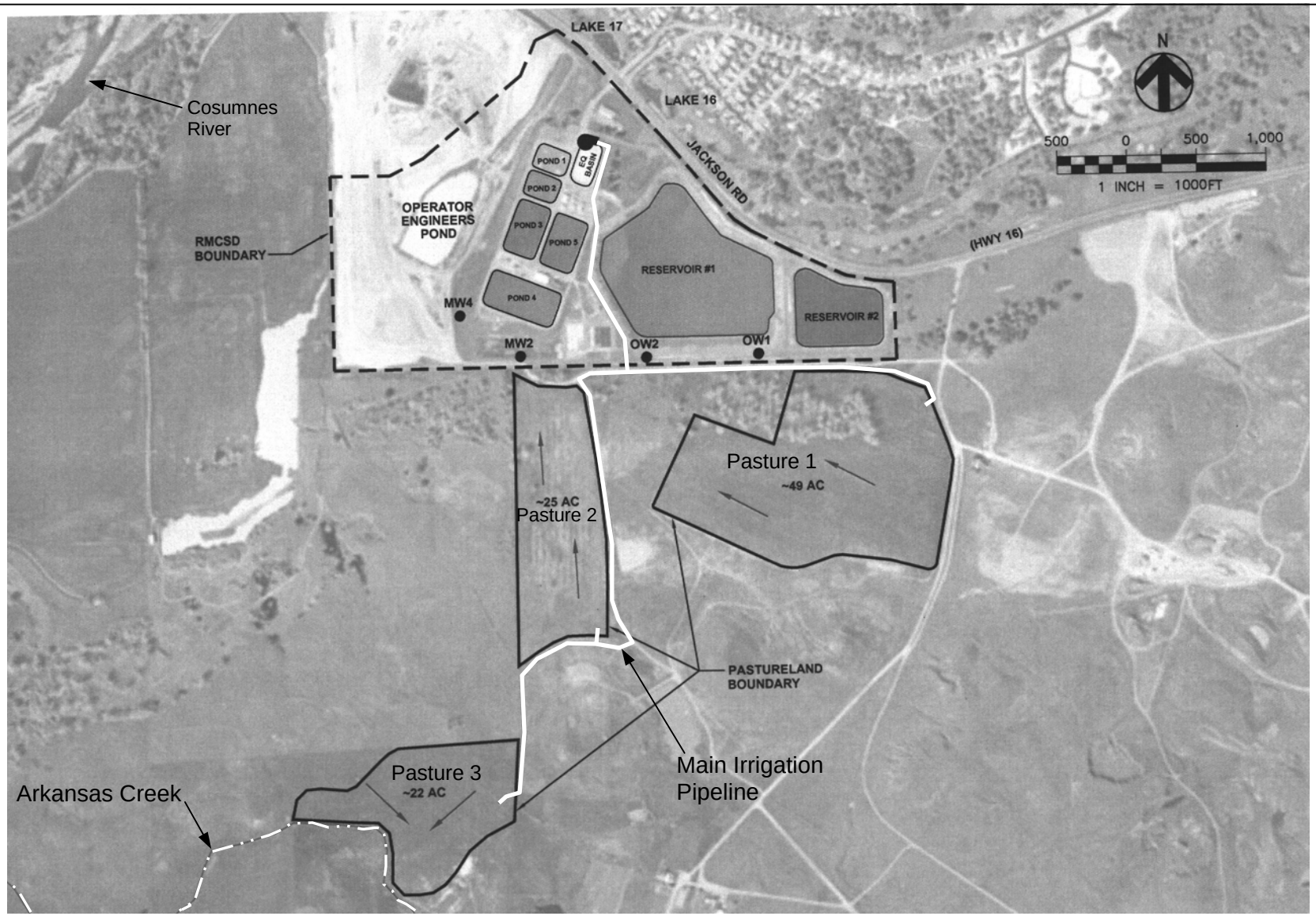
SITE LOCATION MAP
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
VAN VLECK RANCH RECYCLED WATER REUSE AREAS
SACRAMENTO COUNTY

ORDER NO. R5-2007-0109

N

2 miles

ATTACHMENT B



Drawing Reference:
Report of Waste Discharge
HydroScience Engineers, Inc.
May 2007

WWTF and REUSE AREA PLAN
RANCHO MURIETA COMMUNITY SERVICES DISTRICT
VAN VLECK RANCH RECYCLED WATER REUSE AREAS.
SACRAMENTO COUNTY

ORDER NO. R5-2007-0109