

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2006-0001

CEASE AND DESIST ORDER  
REQUIRING  
RANCHO MURIETA COMMUNITY SERVICES DISTRICT AND  
RANCHO MURIETA COUNTRY CLUB  
SACRAMENTO COUNTY

TO CEASE AND DESIST  
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The Regional Water Quality Control Board, Central Valley Region, (hereafter referred to as “Regional Board”) finds that:

1. Rancho Murieta Community Services District (RMCS D) owns and operates a wastewater treatment facility (WWTF) in Rancho Murieta, Sacramento County. Treated and disinfected wastewater is reclaimed to irrigate two golf courses operated by the Rancho Murieta Country Club (RMCC). RMCS D and RMCC are hereafter referred to individually by their initials or jointly as “Dischargers”.
2. The WWTF and golf course reclamation are regulated by Waste Discharge Requirements (WDRs) Order No. 5-01-124, which was adopted by the Regional Board on 11 May 2001. The WDRs set forth separate discharge requirements and specifications for each of the Dischargers. RMCS D is solely responsible for collection and treatment of the wastewater, and RMCC is solely responsible for all systems and activities related to use of the reclaimed water for golf course irrigation.
3. The RMCS D WWTF serves the Rancho Murieta community, and comprises five clay-lined wastewater treatment ponds and two clay-lined wastewater storage reservoirs covering approximately 50 acres. The WWTF relies solely on reclamation at the RMCC golf courses to dispose of all treated wastewater.
4. All wastewater receives Title 22 tertiary treatment and disinfection prior to reclamation at the RMCC golf courses. During the rainy season, wastewater receives secondary treatment and is stored in two storage reservoirs at the WWTF until the next golf course irrigation season.
5. The WWTF is currently committed to serve approximately 2,500 residences and a commercial center. Service is expected to increase to 2,800 residences within the next five to eight years, and the community will have approximately 4,300 to 5,200 residences at full build out. The secondary treatment system capacity is 1.55 million gallons per day (mgd) average daily dry weather flow and 2.0 mgd peak wet weather flow. The tertiary treatment system capacity is 3.0 mgd. In 2005, the average daily dry weather influent flow was approximately 0.47 mgd.
6. This Order addresses the following compliance issues, which are discussed separately below:
  - a. Overflow of reclaimed water from the RMCC storage lakes to surface water during the rainy season;

- b. Inadequate wastewater storage and disposal capacity at the RMCCSD WWTF;
- c. Complaints regarding odors emanating from the RMCC storage lakes and from the golf course irrigation system; and
- d. Potential groundwater degradation at the RMCCSD WWTF.

### **Reclaimed Water Storage Lake Overflows**

7. During the golf course irrigation season, RMCC stores tertiary disinfected wastewater in Bass Lake, Lake 10, Lake 11, Lake 16, and Lake 17 prior to pumping it to the irrigation system. According to RMCC, these lakes are designed to spill water during the rainy season.
8. The Dischargers were previously regulated under WDRs Order No. 90-124, which prohibited discharges of waste to surface waters. During a routine inspection of the golf courses in January 2001, staff discovered that the water level in Bass Lake was at the spillway, threatening to overflow into the Cosumnes River. In addition to storing reclaimed water, the RMCC lakes receive storm water runoff from the surrounding area, causing them to overflow and discharge into surface waters in violation of the WDRs during the rainy season. Additionally, staff found numerous instances of non-compliance with applicable sections of the Title 22 water recycling regulations and associated discharge specifications of the WDRs.
9. In May 2001, the Regional Board adopted WDRs Order No. 5-01-124, which updated the requirements from the previous Order. The Regional Board also adopted Cease and Desist Order (CDO) No. 5-01-125, which, among other items, required that the Dischargers comply with applicable sections of Title 22, and either control storm water runoff to eliminate discharges of wastewater from the RMCC lakes to surface waters or obtain a National Pollutant Discharge Elimination System (NPDES) permit for the discharge.
10. With the exception of obtaining an NPDES permit to regulate overflows from the golf course storage lakes, the Dischargers have satisfactorily completed the tasks set forth in the CDO. On 5 June 2002, RMCC applied for a NPDES permit for the winter discharges from the golf course lakes to the Cosumnes River.
11. On 24 February 2004, the Executive Director of the State Water Resources Control Board (State Board) issued a guidance memorandum entitled *Incidental Runoff of Recycled Water* that defined incidental runoff as “...small amounts of runoff from intended recycled water use areas, overspray from sprinklers that drifts out of the intended use area, and overflow of ponds that contain recycled water during storms.” The memorandum states that recycled water ponds should be designed and operated not to spill during wet months, but that “...If discharges from a reclamation project occur routinely, such discharges can be regulated under a municipal storm water NPDES permit in most cases.”
12. The Dischargers subsequently stated their intent to manage the golf course’s reclaimed water storage lakes in accordance with the State Board memorandum. On 28 February 2005, RMCC submitted a technical report entitled *In Support of a Storm Water Discharge Permit*. The report proposed to

comply with the State Board Executive Director's incidental runoff memorandum by ceasing reclaimed water discharge to the golf course lakes on 15 October each year, then allowing the golf course lakes to drop to three feet of freeboard while irrigating only with raw water. After that date, the lakes would only receive raw water from the Cosumnes River (as necessary for irrigation and aesthetic reasons). The report stated that reclaimed water would not be conveyed to the golf course lakes prior to 15 March each year, and only when freeboard in the RMCC lakes was two feet or greater.

13. On 17 March 2005, staff approved the operational plan and agreed that the plan would comply with the State Board memorandum.
14. On 30 March 2005, Regional Board staff notified RMCCSD that it must obtain coverage under the NPDES General Permit for the discharge of storm water as a non-traditional small MS4. The letter required that RMCCSD obtain MS4 permit coverage by 28 September 2005.
15. On 9 September 2005, RMCCSD submitted a Notice of Intent and Storm Water Management Plan (SWMP) to apply for coverage under the State Board's Water Quality Order No. 2003-0005-DWQ, the NPDES General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4 General Permit). The SWMP addresses both discharges of storm water from the community and overflows from the RMCC storage lakes. The SWMP incorporates the approved operational plan for overflows from the RMCC storage lakes.
16. Further review of the February 2005 technical report submitted by RMCC finds that the golf course ponds are designed to overflow during the winter to the Cosumnes River, and that up to 18 million gallons could spill between the months of January to March during an average rainfall year even if the lakes are managed per the proposed operational plan. RMCC estimated that wastewater would constitute approximately 48% of the spill volume. Therefore, the lakes are clearly not designed to prevent overflow, and the estimated overflow volume cannot be considered "incidental runoff" as described in the Executive Director's guidance memorandum. Therefore it is appropriate to prohibit overflow discharges from Bass Lake, Lake 10, Lake 11, Lake 16, and Lake 17 to surface waters without an NPDES permit. It is also appropriate to allow sufficient time for RMCC to either cease the overflow discharges or obtain an NPDES permit that regulates the discharges.

### **WWTF Storage and Disposal Capacity**

17. Discharge Specification B.12 of WDRs Order No. 5-01-124 requires that the WWTF be designed and maintained to provide complete containment of wastewater during the 100-year, 365-day precipitation event. Discharge Specification B.13 requires that the WWTF ensure adequate storage capacity to comply with Discharge Specification B.12 and provide two feet of freeboard during the rainy season by 1 October each year.
18. On 5 June 2003, RMCCSD informed staff that normal operation of the tertiary plant and delivery of reclaimed water to RMCC had been delayed to allow for improvements to the disinfection system as required by the Department of Health Services. RMCCSD requested permission to begin delivering reclaimed water prior to completing the improvements, stating that adequate chlorine

contact time would be achieved by increasing the chlorine dosage rate until the improvements were complete. Staff approved the interim operations plan on 11 June 2003. The operational delay prevented the Dischargers from reclaiming approximately 400 acre-feet of effluent in 2003. The excess secondary effluent was stored in the WWTF storage reservoirs.

19. On 5 September 2003, RMCS D requested permission to extend operation of the reclamation plant from the approved<sup>1</sup> 25 September shutdown date to October or November to lower the WWTF storage reservoirs and provide adequate storage for the upcoming rainy season. Staff authorized a two-week extension and expressed concern about wastewater storage/disposal capacity. RMCS D was asked to assess capacity, evaluate solutions, and select an alternative that would provide adequate capacity.
20. On 14 January 2004, staff issued a Notice of Inadequate Capacity pursuant to California Code of Regulations Title 23, Section 2232 notifying RMCS D that the Regional Board would consider adopting a time schedule order pursuant to Section 13300 of the California Water Code or other enforcement action unless the District could demonstrate that adequate steps were being taken to address the capacity problem. The NOV required that RMCS D submit a technical report specifying planned capacity improvements.
21. On 17 March 2004, RMCS D requested that the Executive Officer rescind the Notice of Inadequate Capacity, stating that the apparent capacity problem in 2003 resulted not from lack of storage/disposal capacity, but the tertiary plant's operational delay in 2003, which reduced the volume of reclaimed water conveyed to the golf course, thereby increasing the amount stored in the WWTF storage reservoirs. The letter included a water balance that appeared to show adequate capacity. However, the water balance was not based on the 100-year, 365-day precipitation event as required by Discharge Specification B.13 of the WDRs.
22. On 15 November 2004 RMCS D requested extension of the approved irrigation season from 25 September to 15 October each year to reduce the excess volume in the WWTF effluent storage reservoirs. However, no technical basis was provided to support RMCS D's position that the rainy season should be defined to begin on 1 December each year, or that the RMCC lakes could be adequately flushed between 15 October and 1 December while RMCC continued to irrigate with reclaimed water.
23. On 6 May 2005, RMCS D submitted a revised water balance, and after receiving informal staff comments, submitted a second revised water balance on 22 June 2005.
24. The June 2005 water balance model for current flows (0.47 mgd average daily dry weather flow) predicts that the WWTF storage reservoirs would be in violation of the two-foot freeboard requirement in April during the 100-year, 365-day total annual precipitation design event.
25. The water balance result is due to the fact that RMCS D is still storing approximately 280 acre-feet of the excess secondary effluent that could not be reclaimed in 2003 due to the tertiary plant

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<sup>1</sup> The 25 September shut down date was proposed by the Discharger in its *Interim Surface Water Protection Workplan*, which was submitted to comply with the CDO.

operational delay. RMCS D estimated that approximately 280 acre-feet of the excess effluent would still be stored in the WWTF storage reservoirs by October 2005. Additionally, based on RMCS D's projection, it would take at least two years of near normal rainfall to recoup that storage capacity. Based on the Discharger's data inputs and mathematical model, staff calculated that the storage and disposal capacity would be approximately 0.67 mgd (measured as the average daily dry weather influent flow) if not for the excess stored wastewater.

26. During a 16 May 2005 meeting with Regional Board staff, RMCC management stated that the country club would not accept more reclaimed water than they currently do, effectively limiting RMCS D's effluent disposal capacity to current flows.
27. Considering the water balance results, RMCC's limited demand for reclaimed water, and the new development projects previously approved and currently under review by the Sacramento County Department of Environmental Review and Assessment, the RMCS D facility does not have sufficient wastewater storage and/or disposal capacity to comply with Discharge Specifications B11, B.12, and B.13 of the WDRs, and therefore RMCS D must address the storage/disposal capacity deficit in a timely manner.
28. In response to staff's request, on 23 September 2005, RMCS D submitted a proposed scope and schedule for planning, design, and construction of short- and long-term capacity improvement projects as follows:
  - a. The short-term project involves expanding water reclamation operations to include irrigating nearby pasture by spring 2006; and
  - b. The long-term project involves development and implementation of an Integrated Water Master Plan by fall 2009.
29. WDRs Order No. 5-01-124 contains an influent flow limit of 1.5 mgd based solely on treatment capacity. However, RMCS D's water balance shows that the current storage and disposal capacity are limited to approximately 0.45 mgd average daily dry weather flow. However, the average daily dry weather flow in 2005 was 0.47 mgd. Once the excess secondary water is disposed of, the storage and disposal capacity will be approximately 0.67 mgd. Because these capacities are significantly less than authorized by the WDRs, it is appropriate to limit influent flows to that which can be stored and disposed. Due to the apparent storage/disposal capacity deficit, it is also appropriate to require that RMCS D plan, design, and implement all storage and disposal capacity improvements needed to accommodate flows projected for the foreseeable future. This Order sets forth a schedule for these tasks, while allowing moderate growth and flow increases beyond the WWTF's current 100-year event storage/disposal capacity. This Order also allows the Executive Officer to approve an increase in the flow limit to the design storage and disposal capacity (0.67 mgd) once RMCS D demonstrates that the excess stored wastewater has been reclaimed. However, this Order does not allow any capacity-related violations of the WDRs, and requires that RMCS D submit and implement an approved contingency plan to ensure that adequate freeboard is maintained and that the WWTF ponds do not overflow.

### Nuisance Odors

30. Discharge Specification J.2 of WDRs Order No. 5-01-124 requires that RMCC manage the reclaimed water such that objectionable odors are not perceivable beyond the limits of the golf courses and reclaimed water storage lakes.
31. In May 2005, Regional Board staff began receiving odor complaints from Rancho Murieta residents. Based on communication with the complainants, staff understood that the odor problem is seasonal and has been recurring every spring and summer for approximately ten years. Most of the complainants stated that the odors are associated with irrigation of the golf course and with the golf course storage lakes. The complaints were non-specific as to actual dates and times, and at least one complainant was concerned about a community pond that does not receive reclaimed water.
32. Staff discussed these complaints with RMCCSD and RMCC staff, and was informed that some of the storage lakes (portions of Bass Lake and Lakes 10 and 11, in particular) are shallow and typically experience algal blooms during warm weather. RMCC staff noted that odors during irrigation are noticeable when the golf course sprinkler system is first used in the spring, despite the fact that runoff dilutes the effluent in the lakes throughout the rainy season. RMCCSD informed staff that it had agreed to provide labor and equipment to remove tules and cobble-line the shores of Bass Lake during the summer of 2005 in an effort to reduce the mass of decomposable plant matter, which can foster algal blooms and subsequent decay of the dead plant mater, which can create nuisance odors.
33. However, the complainants stated that the odor problem is not limited to the spring, and remained concerned that inadequate wastewater treatment was the cause of the odors and that the proposed lake cleanup would not mitigate the problem.
34. On 26 August 2005, staff issued an informal enforcement letter to the Dischargers, requesting that they work jointly to:
  - a. Assess where and when the odors occur;
  - b. Determine the physical source(s) of the odor;
  - c. Determine the specific cause(s) of the odor;
  - d. Develop a specific plan of activities designed to minimize the odor; and
  - e. Develop a specific schedule for these activities.
35. The Dischargers requested contact information for the complainants to enable their consultants to develop a better understanding of the nature of the problem. On 8 September, staff requested that those complainants willing to work with the consultant grant permission to release their names. Two out of the four complainants agreed to be contacted.
36. On 21 October 2005, RMCC submitted an acceptable *Odor Assessment and Mitigation Report*. The report concluded that it is possible that nuisance odors could occur from the discharge of reclaimed wastewater, and identified likely odor sources including:

- a. “Stale” water that may remain in the golf course sprinkler system during the winter and between irrigation events;
- b. A sewer pipe and/or wastewater lift station near one of the complainant’s homes; and/or
- c. Stagnant water conditions in the golf course lakes during the hot summer months.

The report proposed an acceptable program for community outreach, odor complaint resolution, and odor minimization improvements. It is appropriate to require the Dischargers to fully implement the proposed odor mitigation program.

### Groundwater Degradation

37. The groundwater limitations of the WDRs Order No. 5-01-124 state that the WWTF may not cause groundwater to:

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

<u>Constituent</u>	<u>Units</u>	<u>Limitation<sup>2</sup></u>
<i>Boron</i>	<i>mg/L</i>	<i>0.6</i>
<i>Chloride</i>	<i>mg/L</i>	<i>106</i>
<i>Iron</i>	<i>mg/L</i>	<i>0.3</i>
<i>Manganese</i>	<i>mg/L</i>	<i>0.05</i>
<i>Sodium</i>	<i>mg/L</i>	<i>69</i>
<i>Total Coliform Organisms</i>	<i>MPN/100 mL</i>	<i>Nondetect</i>
<i>Total Dissolved Solids<sup>1</sup></i>	<i>mg/L</i>	<i>450</i>
<i>Total Nitrogen</i>	<i>mg/L</i>	<i>10</i>
<i>Nitrite (as N)</i>	<i>mg/L</i>	<i>1</i>
<i>Nitrate (as N)</i>	<i>mg/L</i>	<i>10</i>
<i>Ammonia (as N)</i>	<i>mg/L</i>	<i>0.5</i>
<i>Total Trihalomethanes</i>	<i>µg/L</i>	<i>100</i>
<i>Total Zinc</i>	<i>mg/L</i>	<i>2</i>
<i>Total Phenol</i>	<i>µg/L</i>	<i>5</i>
<u><i>Formaldehyde</i></u>	<u><i>µg/L</i></u>	<u><i>100</i></u>

<sup>1</sup> *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, potassium, etc.]*

<sup>2</sup> The tabulated numeric limitations are the applicable water quality limits based on the Basin Plan narrative water quality objectives for protecting the beneficial uses of groundwater.

2. *Contain any constituent not identified in Groundwater Limitation F.1 in concentrations greater than background quality (whether chemical, physical, biological, bacteriological, radiological, or some other property or characteristic).*
  3. *Exhibit a pH less than 6.5 or greater than 8.5 pH units.*
  4. *Impart taste, odor, or color that creates nuisance or impairs any beneficial use.*
38. The provisions of the WDRs require that RMCS D install additional groundwater monitoring wells, evaluate groundwater quality at the WWTF, determine appropriate groundwater limitations based on site-specific conditions, evaluate best practicable treatment and control (BPTC) measures to prevent or minimize groundwater degradation, and implement the selected BPTC measures.
  39. RMCS D implemented an approved monitoring well installation workplan and has been monitoring groundwater at the WWTF using the new monitoring wells since October 2001. RMCS D has submitted a Groundwater Limitations Compliance Report (March 2003) and a BPTC Comprehensive Technical Evaluation Report to comply with the WDRs.
  40. Groundwater is encountered approximately 34 feet below the ground surface of the WWTF (approximately 145 feet above mean sea level). Quarterly groundwater monitoring data since October 2001 indicate that the groundwater gradient is consistently towards the southwest.
  41. Review of the USDA Soil Conservation Service's Soil Survey of Sacramento County indicates that the WWTF is constructed in an area predominated by old dredge tailings. There are two predominant soil series upgradient (northeast) of the WWTF: the Mokelumne gravelly loam and dredge tailings. According to the soil survey, the Mokelumne gravelly loam is characterized by low pH (3.6 to 5.0) at depths of 10 to 39 inches, whereas the dredge tailings are characterized by neutral to slightly acidic pH at similar depths (6.1 to 7.3).
  42. Monitoring well MW-1 is the only monitoring well upgradient of the WWTF and currently serves as the background monitoring well. It is completed in the Mokelumne gravelly loam north of the WWTF effluent storage reservoirs. Monitoring data for this well show that background groundwater pH typically ranges from 3.8 to 5.2, which is consistent with the information published in the soil survey. Samples from MW-1 typically exhibit high TDS (700 to 900 mg/L), sodium (80 to 130 mg/L), and chloride (100 to 150 mg/L). Concentrations of iron and manganese greatly exceed the applicable water quality limits (0.3 mg/L and 0.05 mg/L, respectively) and fluctuate seasonally.
  43. The WWTF effluent storage reservoirs are downgradient of the Mokelumne gravelly loam, and monitoring wells OW-1 and OW-2 are directly downgradient of the effluent storage reservoirs. Groundwater in these two wells is typically acidic, although slightly less so than in the background well. With the exception of manganese, samples from OW-1 typically exhibit similar or lower concentrations of monitored constituents than the background well. With the exception of manganese, OW-2 consistently exhibits lower concentrations than the background well.



44. Monitoring Well MW-2 is downgradient of the WWTF treatment ponds and sludge drying beds. According to the *BPTC Comprehensive Technical Evaluation* report, the sludge drying beds were reconstructed in 2002 with reinforced concrete. Prior to that time, the beds were unlined. Based on monthly monitoring reports submitted by the Discharger, wastewater in the WWTF ponds typically exhibits TDS concentrations ranging from 250 to 350 mg/L. However, TDS concentrations in MW-2 typically range from 1,200 to 1,600 mg/L, and appear to be increasing since monitoring began in 2001. Sodium concentrations in MW-2 have typically exceeded both background and the applicable water quality limit. Nitrate nitrogen concentrations are also greater than background, but do not exceed the applicable water quality limit. Chloride concentrations, although typically less than background, have been increasing since 2001.
45. Monitoring well MW-3 is downgradient of the WWTF treatment ponds. It has historically exhibited the highest pH of all of the wells, ranging from 5.4 to 6.8, and the pH appears to be decreasing since 2001. MW-3 exhibits the lowest TDS, sodium, chloride, iron, and manganese concentrations of all the wells, with typical concentrations below background and the applicable water quality limit. Nitrate nitrogen concentrations typically exceed background in this well, but do not exceed the applicable water quality limit.
46. In summary, MW-2 consistently exhibits evidence of groundwater degradation due to salinity constituents. However, given the low salinity of the impounded wastewater and the fact that the sludge drying beds are constructed of concrete, staff cannot definitively conclude that groundwater quality has been degraded by the WWTF. Conversely, staff cannot conclude that groundwater quality has not been degraded by the WWTF. Geochemistry information presented in the Soil Survey for Sacramento County indicates that monitoring well MW-1 may be representative of background groundwater quality only for the effluent storage reservoirs, and that additional monitoring is needed to determine whether background groundwater quality for the treatment ponds is different than background groundwater quality for the effluent storage reservoirs. Therefore, this Order includes a scope and schedule for tasks designed to provide the data needed, make the final determination of compliance with the groundwater limitations, and determine whether additional BPTC measures are needed to protect water quality underneath and downgradient of the WWTF.

### **Regulatory Considerations**

47. As a result of the events and activities described in this Order, the Regional Board finds that the Dischargers have discharged, and have the potential to discharge, waste in violation of WDRs No. 5-01-124.
48. The Regional Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) designates beneficial uses, includes water quality objectives to protect the beneficial uses, and includes implementation plans to implement the water quality objectives.
49. Surface water drainage from the facility 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.

50. The beneficial uses of underlying groundwater are municipal and domestic water supply, agricultural supply, industrial service supply, and industrial process supply.
51. Section 13301 of the California Water Code states in part: *“When a Regional Board finds that a discharge of waste is taking place or threatening to take place in violation of the requirements or discharge prohibitions prescribed by the regional board or the state board, the board may issue an order to cease and desist and direct that those persons not complying with the requirements or discharge prohibitions (a) comply forthwith, (b) comply in accordance with a time schedule set by the board, or (c) in the event of a threatened violation, take appropriate remedial or preventive action.”*
52. Section 13267(b) of the California Water Code states: *“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 waste 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 within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”*
53. The required technical reports are necessary to assure compliance with WDRs Order No. 5-01-124 and this Order, and to assure protection of public health and safety. The Dischargers own and operate the facilities that discharge the waste subject to this Order.
54. The issuance of this Order is an enforcement action by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act, pursuant to Section 15321(a)(2), Title 14, California Code of Regulations.
55. On 26 January 2006, in Rancho Cordova, California, after due notice to the Dischargers and all other affected persons, the Regional Board conducted a public hearing at which evidence was received to consider a Cease and Desist Order.
56. Any person affected by this action of the Regional Board may petition the State Water Resources Control Board to review the action in accordance with Section 2050 through 2068, Title 23, California Code of Regulations. The petition must be received by the State Water Resources Control Board, Office of Chief Counsel, P.O. Box 100, Sacramento, CA, 95812-0100, within 30 days of the date on which the Regional Board action took place. Copies of the law and regulations applicable to filing petitions are available at [www.waterboards.ca.gov/water\\_laws/index.html](http://www.waterboards.ca.gov/water_laws/index.html) and also will be provided upon request.

**IT IS HEREBY ORDERED** that, pursuant to Sections 13301 and 13267 of the California Water Code, Cease and Desist Order No. 5-01-125 is rescinded, and Rancho Murieta Community Services District and Rancho Murieta Country Club, their agents, successors, and assigns, shall in accordance with the

following tasks and time schedule, implement the following measures and identify and implement all improvements required to ensure long-term compliance with WDRs No. 5-01-124, or any superceding permits or orders issued by the Regional Board.

Any person signing a document submitted under this Order 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 knowledge and 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.”*

### **Reclaimed Water Storage Lake Overflows**

1. RMCC shall either:
  - a. Cease all discharges to surface water from Bass Lake, Lake 10, Lake 11, Lake 16, and Lake 17, and any golf course lake, pond, or other water feature that receives reclaimed water for either storage or aesthetic purposes, or
  - b. Obtain an NPDES Permit that regulates all overflow discharges from any golf course lake that receives reclaimed water.
2. By **30 June 2006**, RMCC shall submit a report specifying the selected compliance option and detailing a proposed scope and schedule of work for complete implementation of the selected option. If the selected option involves obtaining an individual NPDES permit, the report shall include a discussion of how RMCC and RMCCSD will comply with the Basin Plan’s Wastewater Reuse Policy, which requires that land disposal be maximized.
3. If RMCC elects to pursue Option 1.b above, by **30 January 2007**, RMCC shall submit a complete NPDES permit application. If RMCC elects to pursue Option 1.a, then compliance shall be met by **30 January 2008**.
4. By **30 January 2008**, RMCC shall submit a technical report certifying full compliance with Discharge Prohibition I.1 and Discharge Specifications J.7, J.8, and J.9 of WDRs Order No. 5-01-124.

### **Inadequate Wastewater Treatment Facility Capacity**

5. Effective **immediately** and continuing unless and until the Regional Board adopts revised Waste Discharge Requirements or the Executive Officer approves otherwise pursuant to Item 6, the monthly average daily dry weather influent flow to the WWTF<sup>3</sup> shall not exceed 0.52 mgd and the total annual influent flow shall not exceed 198 million gallons per year (as measured from 1 July to 30 June each year).

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<sup>3</sup> The average daily dry weather flow shall be based on the months of June through September.

6. If RMCS D demonstrates (as specified below) that the excess stored wastewater has been reclaimed or otherwise properly disposed of, thereby fully restoring the design storage and disposal capacity of the WWTF, the Executive Officer will approve the following flow limitations:
  - a. The monthly average daily dry weather influent flow to the WWTF shall not exceed 0.67 mgd; and
  - b. The total annual influent flow shall not exceed 256 million gallons per year (as measured from 1 July to 30 June each year).

The required demonstration shall include, at a minimum, a letter report certifying that the total volume stored in the effluent storage reservoirs has been reduced to 100 acre-feet or less on any single day. The report shall provide the date that the volume reduction was achieved, actual freeboard measurements for both storage reservoirs on that date, calculations that demonstrate that the total stored volume does not exceed 100 acre-feet, and a description of how and where the excess water has been disposed of.

7. Effective **immediately**, RMCS D shall ensure continuous compliance with Discharge Prohibition A.1 and Discharge Specification B.11 of WDRs Order No. 5-01-124.
8. By **15 March 2006**, RMCS D shall submit an *Interim Wastewater Containment Compliance Plan* detailing specific actions that will be taken to ensure continuous compliance with Discharge Prohibition A.1 and Discharge Specification B.11 of WDRs Order No. 5-01-124.
9. By **30 July 2007**, RMCS D shall submit a *Wastewater Facilities and Financing Plan* for all work and improvements needed to provide adequate treatment, storage, and disposal capacity to accommodate all planned growth through final build out or at least 2019. The plan shall be adopted by the RMCS D Board of Directors and shall include all of the following:
  - a. A detailed description of the scope and schedule of all planning, design, and construction, including improvements to existing facilities and construction of new facilities as needed to accommodate projected influent flows through final build out or at least 2019. A phased expansion plan may be proposed.
  - b. A projection of yearly influent flows, including I/I, for each year through final build out or at least 2019. The projection shall be based on consideration of all development projects underway, approved projects, and projects undergoing the County planning and approval process. Flow increases shall be projected for each individual development project for each year using reasonable estimates of per unit wastewater flows based on projected occupancy/population increases associated with the development project.
  - c. The estimated date when influent flows will reach ninety percent of the WWTF's 0.67 mgd design storage and disposal capacity (i.e., 0.60 mgd average daily dry weather flow). Based on that projection, the plan shall propose specific dates for submittal of:
    - i. A Report of Waste Discharge (RWD) at least 12 months (360 days) before influent flows are projected to reach 0.60 mgd average daily dry weather flow, and

- ii. Certification of completion of necessary expansion improvements before influent flows exceed the flow limitations set forth in Items 5 and 6 of this Order.
- d. A preliminary capital cost estimate and a financing plan describing how the improvement project(s) will be funded.
- e. A description of the actions that RMCS D will take to coordinate with the Sacramento County Department of Environmental Review and Assessment and developers to ensure that development projects can receive building permits only when the WWTF has sufficient capacity to accommodate flows from the permitted construction.

Upon the Executive Officer's approval of the *Wastewater Facilities and Financing Plan*, the dates proposed under c. above shall become enforceable deadlines under this Order and shall remain in effect unless and until RMCS D demonstrates that actual influent flow increases have been less than projected in the plan. In that case, RMCS D shall submit, in lieu of the RWD, a revised influent flow projection with revised enforceable deadlines for submittal of the RWD and completion of the WWTF expansion.

#### **Nuisance Odors**

- 10. The Dischargers shall fully implement the *Odor Mitigation Program* proposed in the October 2005 *Odor Assessment and Mitigation Report* and shall comply with the following schedule to document full implementation of the program:
  - a. By **30 March 2006**, RMCC and RMCS D shall submit a copy of the notice provided to customers regarding reporting and resolution of odor complaints.
  - b. By **30 December 2006**, RMCC shall certify completion of the Bass Lake improvements to improve circulation and dissolved oxygen.
  - c. By **30 December 2006**, RMCC shall submit an *Irrigation System Odor Management Plan* that describes in detail the operational procedures to be employed to minimize odors associated with stagnant water within the golf course sprinkler systems and all golf course ponds and lakes.
  - d. By **30 December 2006**, RMCC shall submit a *2006 Odor Mitigation Evaluation* that evaluates the results of the odor mitigation program to date, and if necessary, proposes additional mitigation measures to be employed in 2007.

#### **Potential Groundwater Degradation**

- 11. By **30 June 2006**, RMCS D shall submit a *Groundwater Monitoring Well Installation Workplan*. The workplan shall describe the proposed installation of at least one additional monitoring well upgradient of the WWTF treatment ponds, and a sufficient number of downgradient wells to determine whether groundwater quality has been impacted at the WWTF. If desired, a one-time sampling event (e.g., Hydropunch) may be used to determine the most appropriate location for the wells. Monitoring wells shall be constructed to yield representative samples from the uppermost layer of the uppermost aquifer and to comply with applicable well standards. The workplan shall be consistent with, and include the items listed in, the first section of Attachment A, which is attached hereto and made part of this Order by reference.

12. By **30 December 2006**, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* that describes the results of the one-time sampling event (if utilized) and the installation of groundwater monitoring wells, and contains the items found in the second section of Attachment A.
13. By **30 December 2007**, the Discharger shall submit a *Background Groundwater Quality Study and Degradation Assessment Report*. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of all monitoring data and calculation of the concentration in background monitoring well(s). Determination of background quality shall be made using the methods described in Title 27, Section 20415(e)(10), and shall be based on data from at least 10 consecutive monthly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare the measured concentration in each compliance monitoring well with the proposed background concentration. Pursuant to Title 27, Section 20400(b), the report may propose more than one background value for the site if the report demonstrates that site-specific conditions justify such an approach.
14. If, after consideration of the information provided pursuant to Task 14, RMCS D or the Executive Officer determines that the discharge at the WWTF has violated the Groundwater Limitations of the WDRs, then **within 120 days of notification by the Executive Officer**, RMCS D shall submit a *BPTC Evaluation Workplan* that sets forth the scope and schedule for a systematic and comprehensive technical evaluation of the waste constituent(s) to determine whether additional best practicable treatment and control is necessary to establish that BPTC has been applied and consequent groundwater degradation minimized. The workplan shall contain a revised evaluation of each component of the wastewater treatment plant and propose a time schedule for completing the comprehensive technical evaluation of appropriate treatment and control for each waste constituent causing degradation. The schedule to complete the evaluation shall be as short as practicable, and shall not exceed one year. A technical report containing a complete BPTC evaluation and statistically quantifying effluent quality and consequent groundwater quality for the waste constituents shall be submitted in accordance with the schedule approved by the Executive Officer.

### **Quarterly Status Reports**

15. **Beginning 1 May 2006**, and by the first day of the second month following each calendar quarter (**i.e., by 1 February, 1 May, 1 August, and 1 November each year**), the Discharger shall submit a progress report describing the work completed to date regarding each of the reporting requirements described above.

The Dischargers shall immediately comply with all other Prohibitions, Specifications, and Provisions of Waste Discharge Requirements Order No. 5-01-124 not specifically mentioned above. In addition to the above, the Discharger shall comply with all applicable provisions of the California Water Code that are not specifically referred to in this Order.

All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business

and Professions Code, sections 6735, 7835, and 7835.1. As required by these laws, completed technical reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

If, in the opinion of the Executive Officer, the Discharger fails to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability.

Failure to comply with this Order may result in the assessment of an Administrative Civil Liability up to \$1,000 or up to \$10,000 per day of violation, depending on the violation, pursuant to the California Water Code, including sections 13268, 13350, and 13385. The Regional Board reserves its right to take any enforcement actions authorized by law.

I, KENNETH D. LANDAU, Acting 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 26 January 2006.

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KENNETH D. LANDAU, Acting Executive Officer

Attachment A: Requirements for Monitoring Well Installation Workplans and Monitoring Well Installation Reports

AMENDED

ALO: 01/30/06

Final Staff Report for 26/27 January 2006 Regional Board Meeting

**ATTACHMENT A**

**REQUIREMENTS FOR  
MONITORING WELL INSTALLATION WORKPLANS AND  
MONITORING WELL INSTALLATION REPORTS**

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing, at a minimum, the information listed in Section 1 below. Wells may be installed after staff approves the workplan. Upon installation of the monitoring wells, the Discharger shall submit a well installation report that includes the information contained in Section 2 below. All workplans and reports must be prepared under the direction of, and signed by, a registered geologist or civil engineer licensed by the State of California.

**SECTION 1 - Monitoring Well Installation Workplan and  
Groundwater Sampling and Analysis Plan**

The monitoring well installation workplan shall contain the following minimum information:

A. General Information:

- Purpose of the well installation project
- Brief description of local geologic and hydrogeologic conditions
- Proposed monitoring well locations and rationale for well locations
- Topographic map showing facility location, roads, and surface water bodies
- Large scaled site map showing all existing on-site wells, proposed wells, surface drainage courses, surface water bodies, buildings, waste handling facilities, utilities, and major physical and man-made features

B. Drilling Details:

- On-site supervision of drilling and well installation activities
- Description of drilling equipment and techniques
- Equipment decontamination procedures
- Soil sampling intervals (if appropriate) and logging methods

C. Monitoring Well Design (in narrative and/or graphic form):

- Diagram of proposed well construction details
  - Borehole diameter
  - Casing and screen material, diameter, and centralizer spacing (if needed)
  - Type of well caps (bottom cap either screw on or secured with stainless steel screws)
  - Anticipated depth of well, length of well casing, and length and position of perforated interval
  - Thickness, position and composition of surface seal, sanitary seal, and sand pack
  - Anticipated screen slot size and filter pack

D. Well Development (not to be performed until at least 48 hours after sanitary seal placement):

- Method of development to be used (i.e., surge, bail, pump, etc.)
- Parameters to be monitored during development and record keeping technique
- Method of determining when development is complete
- Disposal of development water



- E. Well Survey (precision of vertical survey data shall be at least 0.01 foot):  
Identify the Licensed Land Surveyor or Civil Engineer that will perform the survey  
Datum for survey measurements  
List well features to be surveyed (i.e. top of casing, horizontal and vertical coordinates, etc.)
- F. Schedule for Completion of Work
- G. **Appendix: Groundwater Sampling and Analysis Plan (SAP)**  
The Groundwater SAP shall be included as an appendix to the workplan, and shall be utilized as a guidance document that is referred to by individuals responsible for conducting groundwater monitoring and sampling activities.
- Provide a detailed written description of standard operating procedures for the following:
- Equipment to be used during sampling
  - Equipment decontamination procedures
  - Water level measurement procedures
  - Well purging (include a discussion of procedures to follow if three casing volumes cannot be purged)
  - Monitoring and record keeping during water level measurement and well purging (include copies of record keeping logs to be used)
  - Purge water disposal
  - Analytical methods and required reporting limits
  - Sample containers and preservatives
  - Sampling
    - General sampling techniques
    - Record keeping during sampling (include copies of record keeping logs to be used)
    - QA/QC samples
  - Chain of Custody
  - Sample handling and transport

## **SECTION 2 - Monitoring Well Installation Report**

The monitoring well installation report must provide the information listed below. In addition, the report must also clearly identify, describe, and justify any deviations from the approved workplan.

- A. General Information:  
Purpose of the well installation project  
Brief description of local geologic and hydrogeologic conditions encountered during installation of the wells  
Number of monitoring wells installed and copies of County Well Construction Permits  
Topographic map showing facility location, roads, surface water bodies  
Scaled site map showing all previously existing wells, newly installed wells, surface water bodies, buildings, waste handling facilities, utilities, and other major physical and man-made features.
- B. Drilling Details (in narrative and/or graphic form):  
On-site supervision of drilling and well installation activities

Drilling contractor and driller's name

Description of drilling equipment and techniques

Equipment decontamination procedures

Soil sampling intervals and logging methods

Well boring log

- Well boring number and date drilled
- Borehole diameter and total depth
- Total depth of open hole (same as total depth drilled if no caving or back-grouting occurs)
- Depth to first encountered groundwater and stabilized groundwater depth
- Detailed description of soils encountered, using the Unified Soil Classification System

C. Well Construction Details (in narrative and/or graphic form):

Well construction diagram, including:

- Monitoring well number and date constructed
- Casing and screen material, diameter, and centralizer spacing (if needed)
- Length of well casing, and length and position of perforated interval
- Thickness, position and composition of surface seal, sanitary seal, and sand pack
- Type of well caps (bottom cap either screw on or secured with stainless steel screws)

E. Well Development:

Date(s) and method of development

How well development completion was determined

Volume of water purged from well and method of development water disposal

Field notes from well development should be included in report

F. Well Survey (survey the top rim of the well casing with the cap removed):

Identify the coordinate system and datum for survey measurements

Describe the measuring points (i.e. ground surface, top of casing, etc.)

Present the well survey report data in a table

Include the Registered Engineer or Licensed Surveyor's report and field notes in appendix