

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2010-0101

CEASE AND DESIST ORDER AND CONNECTION RESTRICTION

FOR  
NAPA BERRYESSA RESORT IMPROVEMENT DISTRICT  
WASTEWATER TREATMENT SYSTEM  
NAPA COUNTY

TO CEASE AND DESIST  
FROM DISCHARGING CONTRARY TO REQUIREMENTS

The California Regional Water Quality Control Board, Central Valley Region, (hereafter referred to as "Central Valley Water Board" or "Board") finds that:

1. Waste Discharge Requirements (WDRs) Order 95-173, adopted by the Central Valley Water Board on 23 June 1995, prescribes requirements for a wastewater treatment and disposal system owned and operated by Napa Berryessa Resort Improvement District (hereafter referred to as "Discharger" or "NBRID").
2. The Discharger's wastewater treatment facility (WWTF) includes a sanitary sewer system, wastewater treatment plant, and a remote spray field effluent disposal site. The treatment plant is at 1465 Steele Canyon Road near the southwestern arm of Lake Berryessa and the effluent disposal site is approximately 0.5 miles south of the WWTF. Both are in Section 33, T8N, R3W, MDB&M.
3. The WDRs prescribe requirements for treatment of a monthly average flow of 50,000 gallons per day (gpd) of wastewater from the Berryessa Highlands Subdivision and the Steele Park Resort, a United States Bureau of Reclamation (Reclamation) concessionaire-operated facility that closed in 2009 because the concession contract had expired.
4. The Berryessa Highlands subdivision currently consists of 330 Equivalent Dwelling Units (EDUs). At full build out, the subdivision would have up to 561 EDUs. When it was in operation, the Steele Park Resort accounted for an additional 228 EDUs. Despite the fact that the subdivision is not fully developed, influent flows to the WWTF regularly exceeded the flow limits set forth in the WDRs before the resort was closed.
5. Steele Park Resort closed in October 2009, and in April 2010 a new concessionaire signed an agreement with Reclamation to operate the former Steele Park Resort (now known as Lupine Shores). According to Reclamation, Lupine Shores has been open since 29 May 2010, and portable toilets are the only sanitation facilities currently offered. Wastewater from the resort is currently hauled offsite for disposal and is not discharged to the Discharger's WWTF. The new concessionaire plans to construct a new in-ground sewer collection system and a new infrastructure to once again allow wastewater to be discharged into the Discharger's collection system.

6. Wastewater is conveyed to the WWTF by gravity sewers, lift stations, and force mains. The WWTF is an extended aeration activated sludge plant consisting of two aeration basins, two clarifiers and three effluent holding basins. All of the basins are lined with either concrete or plastic liners. Secondary treated disinfected wastewater is pumped to a 50,000 gallon storage tank located on a hillside at the remote effluent disposal site. The tank is used to gravity feed a spray irrigation system, which consists of four adjacent areas (Zones 1 through 4) totaling approximately 60 acres. The Zone 1 land application area is located on a hillside above a tailwater pond. The other zones are also located on the hillside above an unpaved road and they drain into the tailwater pond. A pump station recycles tailwater from the pond back up to the storage tank.

### **Violation Summary**

7. Beginning in 1995, Central Valley Water Board staff has issued numerous enforcement letters for violations at the facility. Because of the continued failure to comply with the WDRs, the Central Valley Water Board has also adopted two Cease and Desist Orders (CDOs) and a Connection Restriction. Currently, the primary compliance issue is the discharge of treated wastewater to surface water drainage courses and Lake Berryessa. The reason for the ongoing discharge-related violations is excessive precipitation-dependent inflow and infiltration (I/I) into the sewer system and inadequate wastewater storage and disposal capacity to accommodate influent flows. During some years, the I/I exceeds the storage and disposal capacity of the WWTF, causing violations of the pond freeboard limits and land application discharge specifications. In some cases, the Discharger has been forced to either intentionally release treated wastewater from the tailwater pond or over-irrigate the land application areas and allow the tailwater to discharge to surface water drainage courses. Despite certain compliance efforts, the Discharger has not completed the capital improvements necessary to comply with the WDRs and continues to discharge wastewater to surface waters in violation of the WDRs, the 2006 Cease and Desist Order, and the Clean Water Act. The violations and enforcement efforts have been extensively described in previous Orders, and are briefly summarized below.

### **Violations Leading to the 1996 CDO**

8. On 25 April 1995, Board staff issued a Notice of Violation (NOV) for a discharge of wastewater from the remote spray field into surface waters. Staff discovered the discharge during an inspection, and the WWTF operator stated that the spill had been intermittently ongoing since January 1995. The failure to report a spill is a violation of the WDRs. The NOV required that the Discharger cease the discharge to surface waters and implement a spill sampling and notification program. In a 31 May 1995 response, the Discharger proposed to submit a plan by September 1995 to address the lack of wastewater storage and disposal capacity, necessary upgrades, sewer inflow/infiltration (I/I), the lack of reliable backup power systems, and any other deficiencies at the WWTF. The letter also stated that backup power sources and pump systems were not functional during times of heavy I/I.

9. On 20 November 1995, staff issued another NOV for discharges of waste to surface water drainage courses. This NOV was based on a 25 October 2005 site inspection. The spill was not reported by the Discharger, and the volume and duration of the discharge was not known. The NOV also cited numerous other violations of the Prohibitions and Specifications of the WDRs.
10. In April 1996, the Discharger submitted a capacity study report, which concluded that excessive I/I was significantly impacting the WWTF's treatment and disposal systems. In addition, the report stated that the sludge handling facilities at the WWTF are inadequate.
11. On 24 July 1996, the NBRID Board of Directors approved a five-year financial plan to finance many of the needed improvements. Although the Discharger applied for funding through the Proposition 204 grant/low interest loan program and the United States Department of Agriculture (USDA) Rural Development Program, they did not qualify because the median household income was higher than the funding threshold. The plan stated that the Discharger would meet with customer groups to determine how to fund larger improvements to the wastewater system.
12. On 20 September 1996, the Central Valley Water Board adopted CDO 96-232 for violations of Discharge Prohibition No. A.1, Discharge Specifications Nos. B.9, B.10, and B.15, and Sludge Disposal Requirement No. C.4 of the WDRs. The CDO required the Discharger to make certain improvements, the most important of which was to increase the storage and disposal capacity by 15 September 2000.
13. With minor exceptions, the Discharger did not complete the work required by the CDO, and continued to violate the WDRs and the CDO.

#### **Violations Leading to the 2006 CDO and Connection Restriction**

14. On 30 December 1996, the Discharger reported a spill of approximately 150,000 gallons of partially treated wastewater to a tributary to Lake Berryessa. The spill was reported following several days of rain. The Discharger stated that monitoring during the storm event indicated that considerable inflow was from the Steele Park Resort, and that future rainstorms lasting two or more days would result in additional spillage.
15. On 12 March 2002, staff sent the Discharger a report documenting the results of a 20 February 2002 inspection of the wastewater treatment system. The report identified several potential concerns including the runoff/run-on and tailwater control arrangement for the Zone 2, 3, and 4 land application areas.
16. On 16 January 2003, staff sent the Discharger a report of a 30 August 2002 inspection. The inspection was conducted to determine whether the Discharger had made improvements to the deficiencies noted during a previous inspection conducted on 12 March 2002. Staff requested that the Discharger submit a technical report addressing the containment of the spray application runoff water, and control of the tailwater from the sprayfield.

17. On 17 March 2003, the Discharger submitted a letter in response to the 16 January 2003 inspection report. The Discharger stated that the wood tailwater diversion cofferdam had recently been replaced with a concrete structure outfitted with four culverts designed to allow for the passage of wet weather flow, to control tailwater flow downstream of the structure, to provide a natural transition zone between the culverts and the natural stream channel downstream, and also to assist in the redirection of spray runoff water into the pond when Zone Nos. 2, 3, and 4 were used.
18. On 21 March 2006, following an 8 December 2005 site inspection, staff issued a NOV for failure to inspect the spray disposal field daily as required by Revised Monitoring and Reporting (MRP) 95-173. The NOV also cited the Discharger's failure to consistently report freeboard levels in the tailwater pond.
19. Discharge Specification No. B.1 of the WDRs states: *"The monthly average discharge shall not exceed 50,000 gallons per day."* The Discharger's monthly monitoring reports between July 2000 and March 2006 show that the average monthly discharge ranged from approximately 26,000 gallons per day (gpd) to 154,000 gpd. During this period, the monthly average discharge exceeded the permit limit of 50,000 gpd for 48 months. The Discharger attributed some of the questionable and excessive flows to the fact that the flow meter had not been properly calibrated.
20. Discharge Specification B.7 of the WDRs requires that ponds be managed to prevent mosquito breeding, and that in particular, weeds shall be minimized, dead algae shall not accumulate on the surface, and an erosion control program be implemented. Inspections in January 1999 and February 2002 documented overgrowth of weeds in violation of the WDRs. The Discharger responded in 2003 and 2004 that it would manage the weeds.
21. Discharge Specification B.14 of the WDRs states, in part, that wastewater may not be sprayed on the remote spray field during precipitation events, or within 24 hours after a precipitation event ceases. The Discharger violated Discharge Specification No. B.14 on numerous occasions. For instance, monthly self-monitoring reports from December 2005 through March 2006 shows that rainfall occurred a total of 46 days and that the Discharger applied wastewater to the land application areas via spray irrigation every day during those months.
22. Sludge Disposal Requirement No. C.1 of the WDRs requires that sludge be disposed of in a manner that protects water quality and is consistent with regulations. Site inspections conducted by staff in February 2002, August 2002, March 2004, July 2004, December 2005, and March 2006 found that the Discharger had stockpiled sludge and pond scrapings next to the sludge pond and within the Zone 1 land application area, in violation of the WDRs.
23. The Provisions of the WDRs require that the Discharger comply with the Monitoring and Reporting Program (MRP), and submit monitoring and technical reports within the timelines required by the Order. The lack of proper and timely reporting was documented in February 1999 Notice of Violation, a February 2004 Notice of Violation, and an April 2004 Notice of Violation. In addition, the Executive Officer issued a California Water

Code 13267 Order for the non-submittal of certain technical reports on 23 July 2004. The lack of proper monitoring continued and another Notice of Violation was issued in March 2006 because the spray fields were not being monitored as required by the MRP.

24. The Discharger's potable water treatment plant discharged backwash wastewater to a sprayfield on a slope above Lake Berryessa, with tailwater flowing into the lake. The 2006 CDO required that this unpermitted discharge be addressed. The Discharger has since abandoned the spray field and directed the backwash wastewater into the sewer collection system.
25. On 24 April 2006, the Discharger submitted a *Master Plan Study*, which provides an assessment of the wastewater treatment facility with respect to current regulations. The *Master Plan Study* stated that the Discharger was in violation of Discharge Specifications Nos. B.1, B.9, B.14, B.15, and B.16, Sludge Disposal Requirement No. C.1, and Provision E.9 of the WDRs. The report identified the following issues:
  - a. Inflow/infiltration has been an ongoing problem and flows of up to 200 percent of permitted flows have occurred during the rainy season.
  - b. The average dry weather flow (including Steele Park Resort) was estimated to be 113,000 gpd and at full build out would be 175,000 gpd. The wastewater treatment plant can treat more than 50,000 gpd. However, effluent disposal and storage is inadequate and the Discharger cannot comply with the flow limit in the WDRs without expanding the storage and/or disposal systems.

### **2006 Cease and Desist Order and Connection Restriction**

26. On 26 October 2006, the Central Valley Water Board adopted CDO R5-2006-0113, including a sewer connection restriction. This Order was necessary because the Discharger was unable to comply with the WDRs, the revised Monitoring and Reporting Program, and a CWC 13267 Order. Violations cited in the 2006 CDO included surface water overflows to Lake Berryessa, failure to monitor, failure to submit technical reports, and failure to comply with influent flow limits. The 2006 CDO required the Discharger to complete a number of studies or facility improvements. All the reports were submitted, and the results are shown in italics in the following list.
  - a. By 1 December 2006, a report showing that modifications to the potable water treatment plant's filter backwash water disposal sprayfield had been completed. *A new lift station and pipeline were constructed to convey the filter backwash to the sewer system instead of the unpermitted disposal site.*
  - b. By 1 January 2007, a Flow Meter Calibration Report. *A new flow meter was installed and calibrated.*
  - c. By 1 January 2007, a Revenue Plan describing costs associated with completing the tasks to meet the requirements in the CDO. *The Revenue Plan stated that the estimated cost to bring the sanitary sewer system and WWTF into compliance would be approximately \$5.2 million. The plan included cost estimates for improvements to the*

*electrical system, influent lift station, effluent pump station, effluent disposal system, aeration system, sludge removal and handling system, and the disinfection system. The plan stated that the Discharger would need to increase sewer rates and pursue loans and bonds to fund the capital improvements.*

- d. *By 1 January 2007, a Staffing Analysis Report for the WWTF. The Discharger's report stated that at least one additional full time treatment plant operator is needed. The Discharger hired a contract operator in June 2007 for several months, and a full-time operator on 2 May 2009. That operator left the Discharger's employ in July 2009 and the position was not refilled due to lack of funding. As of the date of this Order, the Discharger has not hired another operator.*
- e. *By 1 January 2007, a report describing measures taken to prevent tailwater discharges from the land application areas to off-site drainages. The report stated that capturing tailwater from the land application areas during the rainy season would be problematic because the system would also direct storm water runoff from the creek located between Zones 1 and 2 to the tailwater collection pond, which does not have sufficient capacity to accommodate the storm water. The report stated that the Discharger would try to perform daily inspections of the land application areas.*
- f. *By 1 March 2007, a report showing that the stockpiled sludge had been removed from the Zone 1 land application area and the sludge drying bed and disposed of off-site. The stockpiled sludge at the wastewater disposal site was taken offsite for disposal, the sludge pile at the disposal site was cleaned up, and a dewatering system was installed at the wastewater treatment plant. The Discharger subsequently completed dewatering and offsite disposal of excess sludge stored at the plant.*
- g. *By 1 March 2007, an I/I Assessment Workplan to quantify and identify the sources of I/I, evaluate I/I reduction measures, describe how repairs and sewer line replacements were to be completed, and identify the types of repairs that should be done in the field without further evaluation. The Discharger submitted the I/I Assessment Workplan, and requested additional time to complete the I/I Assessment Report because more influent flow data was needed. Staff approved the workplan on 18 May 2007 but informed the Discharger that staff could not grant an extension to the time schedule set forth in the CDO.*
- h. *By 1 May 2007, a Groundwater Monitoring Well Installation Report. Three groundwater monitoring wells were constructed upgradient and downgradient of the tailwater collection pond. The wells were installed using hollow-stem auger drilling techniques, which are not suitable for drilling into competent rock. All of the borings encountered refusal at bedrock and the wells were completed slightly at or slightly above the bedrock interface. The two wells installed to monitor groundwater around the tailwater pond consistently produce water, but, the background monitoring well has been dry since it was installed. Without a background well, staff will not be able to determine site-specific water quality objectives or whether the discharge complies with the anti-degradation policy or Groundwater Limitations of the WDRs. Therefore, it is appropriate to require that the Discharger make a good faith effort to install a functional background well in the bedrock using drilling equipment designed for penetrating rock. If the background well does not produce water, further assessment of background groundwater quality will not be required.*

- i. By 1 June 2007, a Final Wastewater Disposal Plan describing facility improvements to increase overall storage and disposal capacity and prevent sanitary sewer overflows. *The Plan recommended (a) reducing I/I, (b) constructing a subsurface drip irrigation system on approximately 15 acres of the existing land application areas, (c) increasing the capacity of the tailwater collection pond by 1.0 million gallons and lining the pond, (d) modifying the drainage from the Zone 1 sprayfield to bypass the tailwater collection pond when the sprayfield is not being used; and (e) modifying the existing force main so that treated wastewater can be sent directly to the tailwater collection pond.*
  - j. By 1 September 2007, a Sludge Pond Closure Report and a Sludge Management Plan. *This report was submitted and is acceptable.*
  - k. By 1 September 2007, an I/I Assessment Report that described the results of the I/I evaluation and repairs necessary to the collection system to reduce I/I to industry standards. *See Findings 27 and 28 for a full discussion of the I/I issues.*
  - l. By 1 October 2007, selected portions of the Sewer Systems Management Plan (SSMP) required to comply with the State Water Resources Control Board's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (SSO General Order). *The required portion of the SSMP was submitted on time, but the Discharger subsequently failed to comply with the time schedule for completion of the remainder of the SSMP that is set forth in the State Water Board's SSO General Order.*
  - m. Within 60 days of the Executive Officer's approval of the Final Wastewater Disposal Plan, the Discharger was required to submit a Report of Waste Discharge (RWD) reflecting the proposed upgrades to the WWTF. *See Findings 29-31 for a full discussion of the issues with the RWD.*
27. The Discharger submitted an incomplete I/I Assessment Report on 30 August 2007. The final report, which was also incomplete, was submitted on 20 June 2008. According to the report, the then-current average daily dry weather flow (which included flows from the former Steele Park Resort) was approximately 72,000 gpd, significantly in excess of the 50,000 gpd flow limit in the WDRs. The report also stated that the I/I study showed significant I/I despite normal to subnormal rainfall during the previous two winters (2006-'07 and 2007-'08). Specifically, during peak winter months, average daily flows can exceed two times the average daily dry weather flow. The Discharger's study did not include direct monitoring of flows from the Steele Park Resort sewer system. However, the report concluded that the Steele Park Resort contributed significantly to the I/I problem. The report acknowledged that additional flow monitoring data was needed, that no specific locations of I/I had yet been identified, and recommended a number of additional evaluations and improvements. Given that 1.4 million gallons of treated wastewater spilled from the sprayfield area during the winter of 2010, and the fact that Steele Park Resort was not discharging during this time, it is evident that the I/I Assessment must be updated.
28. Steele Park Resort has not discharged waste to the Discharger's WWTF since November 2009. According to Reclamation, the potable water supply and the sewer connections were capped off, the lift station pumps were removed, and buildings were removed from the site. The Discharger verified the sewer disconnections through spot inspection.

29. The Report of Waste Discharge was received on 5 November 2007 and an addendum to the RWD was received on 1 April 2008. The RWD described the following scope of WWTF improvements:
  - a. Replacement or modification of four existing lift stations;
  - b. Improvement of the influent lift station and treatment, disinfection, and sludge handling systems;
  - c. Expansion of the tailwater collection pond from 1.5 million gallons to approximately 3.0 million gallons; and
  - d. Addition of approximately 10 acres of subsurface drip irrigation system within the existing spray fields to increase disposal capacity.
  
30. On 11 August 2008, staff informed the Discharger that the RWD was considered complete, but expressed concern about the following issues:
  - a. Subsurface investigation of NBRID's effluent disposal area indicates that the site is poorly suited for wastewater disposal because of steep slopes and minimal soil depth. Consequently, the incremental increase in disposal capacity associated with the proposed subsurface disposal system could not be quantified, and adequate disposal capacity could not be assured.
  - b. I/I is a critical issue because the availability of suitable land for effluent storage and disposal is limited, but the Discharger did not provide a specific plan for completing the I/I evaluation or implementing an I/I reduction program.
  - c. The RWD Addendum stated that further expansion of the effluent disposal site beyond its current boundaries is not feasible and that significant I/I reduction is required to provide more capacity for future build out of the Berryessa Highlands subdivision. The new concessionaire (which was not yet under contract) had expressed its intention to convert the Steele Park Resort to a hotel-based resort and replace the existing private sewer system, which should reduce both dry weather flows and I/I from that source. However, the Discharger would also need to pursue I/I reduction within the public portion of the sewer system before there is further development within Berryessa Highlands.
  - d. Discharge at the effluent disposal may cause groundwater pollution or seepage to surface water drainages. Staff requested that a Monitoring Well Installation Workplan for the subsurface disposal areas be submitted by 30 October 2008.
  - e. The letter acknowledged that, because the Discharger had not obtained funding to complete the facility improvements and could not predict when circumstances would favor moving forward with the planned bond issue, preparation of the tentative WDRs would be delayed until the Discharger could address staff's concerns and was prepared to move forward with construction.
  
31. Between January and March 2009, the Discharger informed staff that:



- a. The outgoing Steele Park Resort concessionaire had almost no tenants, and was willing to close the resort earlier than May 2009 if the Discharger would agree to stop assessing sewer service fees. The Discharger expressed concern about the effects of the associated decline in revenue.
  - b. After resort closure, influent flows to the WWTF were expected to be approximately one-half of the then-current current flows, so the capacity problem that led to the connection restriction in the 2006 CDO would be partially mitigated.
  - c. The Discharger's legal counsel determined that the bond sale could not go forward because the District did not know the extent of sewer service or the wastewater facilities needed to serve the redeveloped resort. Additionally, there were no confirmed properties to pay the resort's share of debt service, and there was not a signed concessionaire contract. As noted below, the concessionaire contract for the resort was not executed until April 2010.
  - d. The Discharger's Board authorized "exploratory discussions" with a private company about privatizing the WWTF and public water utility. If the Board were to move forward with privatization, the Discharger would likely not proceed with the improvements project. The Discharger subsequently decided not to pursue privatization.
32. Reclamation has been working on reissuing contracts for its multiple Lake Berryessa concessionaires for several years. The October 2005 Final Environmental Impact Statement stated: "Steele Park could become a major contemporary overnight lodging area on Lake Berryessa. It would also have a marina development similar in size to what is currently available. Facilities would be equivalent to a "Two star Rating" from the Mobil Travel Guide. Steele Park would be the water skiing center at Lake Berryessa. Steele Park would be a full-service resort with opportunities for users to enjoy one or several days in a quality room, bungalow, or RV site offering good lake views." A Record of Decision (ROD) for the Future Recreation Use and Operations of Lake Berryessa was approved on 2 June 2006.
33. In April 2010, Reclamation executed a 30-year contract with Pensus Lake Berryessa Properties LLC (Pensus) to operate certain concessions at Lake Berryessa. Under the contract, Pensus will construct a new resort (Lupine Shores) at the former Steele Park Resort site. Pensus has not completed a detailed development plan for Lupine Shores, but the contract commits Pensus to at least 25 "higher end" lodging units; a retail store; a restaurant; 31 recreational vehicle sites; a dock and launch ramp; an RV restroom/shower/laundry facility; and a fish cleaning station. Based on the site improvements specified in the Pensus contract, staff estimates that wastewater flows from the Lupine Shores Resort will be equivalent to 150 single family dwelling units (150 EDUs). The contract requires that Pensus use "best efforts" to complete the improvements by 2023.
34. As stated above, the Discharger has submitted all of the required deliverables for the 2006 CDO. However, with the exception of inspecting and repairing manholes, the physical improvements to the WWTF to reduce I/I and increase storage and disposal have not begun due to the lack of funding. In April 2007, an assessment bond that would have provided nearly \$11 million for capital improvements was approved by the voters. The

assessment was ultimately not levied on the eligible properties because of the expiration of concessionaire contracts with Reclamation, and the resulting uncertainty of the ultimate capacity of the wastewater treatment plant.

### **Violations of the WDRs and the 2006 CDO**

35. Discharge Prohibition A.1 of WDRs Order 95-173 states: *“Discharge of wastes to surface waters or surface water drainage courses is prohibited.”*
36. Discharge Prohibition A.2 of WDRs Order 95-173 states: *“Bypass or overflow of untreated or partially treated effluent is prohibited.”*
37. Discharge Specification B.1 of WDRs Order 95-173 states: *“The monthly average discharge shall not exceed 50,000 gallons per day.”*
38. Discharge Specification No. B.9 of the WDRs states: *“Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the non-irrigation season. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. Freeboard shall never be less than two feet (measured vertically).”*
39. Discharge Specification No. B.14 of the WDRs states: *“The Discharger may not spray irrigate effluent during periods of precipitation and for at least 24 hours after cessation of precipitation or when winds exceed 30 mph.”*
40. Discharge Specification B.15 of WDRs Order 95-173 states: *“The discharge shall remain within the designated disposal areas at all times.”*
41. Discharge Specification B.16 of WDRs Order 95-173 states: *“Storm water runoff from the irrigation areas shall not be discharged to any surface water drainage course within 48 hours of the last application of reclaimed water.”*
42. Cease and Desist Order R5-2006-0113 states: *“The Discharger shall **immediately** comply with all aspects of WDRs Order No. 95-173 (or subsequent WDRs that rescind and replace Order No. 95-173).”*
43. On 17 July 2007 and on 28 April 2008, staff issued NOVs for three raw sewage spills to land estimated at 750 gallons, 200 gallons, and 300 gallons, respectively. The Discharger took appropriate corrective action. The spills are a violation of Discharge Prohibition A.2 and the CDO.
44. On 10 May 2010, staff issued an NOV for a series of extended spills totaling 1.4 million gallons of treated wastewater from the tailwater pond into Lake Berryessa. The spills were controlled releases initiated by the Discharger to protect the pond’s earthen berm. The first spill began on 25 January 2010, and was stopped after four days. The second spill

began on 8 February 2010, and lasted nine days. Because of additional forecasted storms, and the lack of storage/disposal capacity, the Discharger started a third spill on 23 February 2010, and continued for 25 days. Finally, because of pond berm seepage and concerns about a possible berm failure, the Discharger again began discharging on 20 March 2010 and continued until 7 June 2010. The total estimated discharge to surface waters from these spills was approximately 1.4 million gallons. The spills are a violation of Discharge Prohibition A.1, Discharge Prohibition A.2, Discharge Specification B.15, Discharge Specification B.16, and the CDO.

45. Monthly monitoring reports submitted between April 2006 and October 2009 show average daily flows ranging from 58,000 to 130,000 gpd. During this period, flows exceeded the permit limit of 50,000 gpd continuously over a period of 41 months. Monthly average discharges in excess of 50,000 gallons per day are a violation of Discharge Specification B.1 and the CDO. It is noted that monthly monitoring reports from November 2009 through May 2010 report average daily flows ranging from 17,000 to 34,000 gpd (in compliance with the WDRs). This reduction in flow is attributed to closure of the former Steele Park Resort.
46. Monthly monitoring reports submitted between April 2006 and May 2010 show that the Discharger has exceed the two-foot pond freeboard limit for a period of 64 weeks. This is a violation of Discharge Specification B.9 and the CDO.
47. Monthly self-monitoring reports from April 2006 through May 2010 show that rainfall occurred a total of 235 days and that the Discharger applied wastewater to the land application areas via spray irrigation every day during those months. This is a violation of Discharge Specification B.14 and the CDO.
48. Between submittal of the June 2008 I/I Assessment Report and August 2010, the Discharger has reportedly completed inspections of all 112 manholes at the Berryessa Highlands subdivision. However, the Discharger has not completed any other work, including the physical repairs, recommended in the I/I Assessment Report to identify I/I sources or to reduce I/I.

#### **Basis for New CDO and Expanded Sewer Connection Restriction**

49. The Discharger has consistently violated the prohibition against spills as required by Discharge Specification A.1 of the WDRs, and has not constructed the facility upgrades required by either CDO 96-232 or CDO R5-2006-0113. Therefore, this Order continues the prohibition against new connections or additional flows into the collection system connected to the WWTF. In addition, it is appropriate to prohibit discharges from the former Steele Park Resort (now Lupine Shores) into the Discharger's sewer system until there is sufficient capacity to accommodate those flows in compliance with WDRs.
50. Based on information provided in the I/I Assessment Report, the collection system continues to experience significant I/I, even in 2007 and 2008 when there was normal to subnormal rainfall. In addition, actual sources and locations of the I/I have not yet been determined, and no repairs or physical improvements have yet been made.

51. Monthly monitoring reports from November 2009 through May 2010 report average daily flows ranging from 17,000 to 34,000 gpd (in compliance with the WDRs). This reduction in flow is attributed to closure of the former Steele Park Resort. Although significant I/I was evident in the flow monitoring data for this period, the magnitude was much less than in previous years. Nevertheless, the Discharger still spilled over 1.4 million gallons of treated effluent to Lake Berryessa between 25 January and 7 June 2010. This information coupled with near-normal rainfall indicates that there may be a greater capacity deficit than indicated in the Discharger's studies to date. Therefore, it is appropriate to require that the Discharger re-evaluate both I/I and other causes of the capacity deficit. A connection restriction is necessary because the Discharger does not have the necessary storage and disposal capacity to prevent spills to surface waters even without a wastewater flow contribution from the resort.
52. It is appropriate to issue a revised CDO because the Discharger did not comply with the Waste Discharge Requirements, the 1996 CDO, or the 2006 CDO. Additionally, the following case-specific changes warrant reconsideration of the scope of work required and compliance schedule:
  - a. I/I in the public portion of the sewer system appears to be much greater than the previous estimate. Elimination of I/I may not be feasible as a long-term solution to the Discharger's capacity problems, and instead, the Discharger may wish to increase the treatment facility's storage/disposal capacity to account for I/I flows. I/I should be further evaluated and quantified before the WWTF is expanded.
  - b. The Discharger's reliance on a bond issue to fund the required improvements in light of the recent economic downturn and Pensus' development schedule. The Discharger should be given an opportunity to evaluate and pursue alternative funding for the expansion while completing interim changes.
  - c. The District, Reclamation, and Pensus need to work together to determine the volume of wastewater that will be discharged from the new resort, the timing of when the discharges will take place, and an appropriate means for Pensus to finance the facility expansion needed to accommodate its wastewater flows.
  - d. Additional time will allow the Discharger to reconsider its options for expansion of the effluent disposal capacity, possibly including pursuing access agreements with adjacent landowners.

### **Regulatory Considerations**

53. The Central Valley Water 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.
54. Surface water drainage from the facility is to Lake Berryessa. The beneficial uses of Lake Berryessa, as stated in the Basin Plan, are municipal and domestic supply;

agricultural supply; power generation; water contact recreation; noncontact water recreation; warm freshwater habitat; cold freshwater habitat; spawning, reproduction and/or early development; and wildlife habitat.

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

56. California Water Code section 13301 states, in relevant part:

When a regional board finds that a discharge of waste is taking place or threatening to take place in violation of 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. In the event of an existing or threatened violation of waste discharge requirements in the operation of a community sewer system, cease and desist orders may restrict or prohibit the volume, type, or concentration of waste that might be added to such system by discharges who did not discharge into the system prior to the issuance of the cease and desist order. Cease and desist orders may be issued directly by a board, after notice and hearing.

57. Title 23, California Code of Regulations, section 2244(b) states:

Prohibitions or appropriate restrictions on additional discharges should be included in a cease and desist order if the further addition in volume, type, or concentration of waste entering the sewer system would cause an increase in violation of waste discharge requirements or increase the likelihood of violation of requirements.

58. The Central Valley Water Board finds that there is an existing and threatened violation of waste discharge requirements in the operation of a community sewer system because the volume of influent exceeds the amount the facility is physically capable of treating and disposing in compliance with Order 95-173. The Central Valley Water Board also finds that additional volume of wastewater entering the facility will cause an increase in violation of waste discharge requirements and, therefore, this Order prohibits new hookups to the WWTF.

59. California Water Code section 13267 (b) 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.

60. The technical reports required by this Order are necessary to assure compliance with WDR Order 95-173 and to assure protection of public health and safety. The Discharger owns and operates the facility that discharges the waste subject to this Order.
61. Issuance of this Order to enforce CWC Division 7, Chapter 5.5 is exempt from the provisions of the California Environmental Quality Act (Pub. Resources Code § 21000 et seq.), in accordance with California Code of Regulations, title 14, section 15321(a)(2).

**IT IS HEREBY ORDERED** that pursuant to Sections 13301 and 13267 of the California Water Code, Napa Berryessa Resort Improvement District, its agents successors, and assigns, shall implement the following measures necessary to ensure long-term compliance with WDRs 95-173, or any superseding permits or orders issued by the Central Valley Water Board.

This Cease and Desist Order rescinds and replaces Cease and Desist Order R5-2006-0113 except for the purpose of enforcing violations that have occurred to date and continuing the Connection Restriction found in that Order.

Any person signing a document submitted to comply with 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."*

1. The Discharger shall **immediately** comply with all aspects of WDRs Order 95-173 (or subsequent WDRs that rescind and replace Order 95-173).

#### General Requirements

2. The Discharger shall report all overflows from any sanitary sewer and any treatment, storage, or disposal component in accordance with the Standard Provisions and Reporting Requirements, which are incorporated by reference into the WDRs. In particular, the Discharger shall notify the Central Valley Water Board within 24 hours of a spill and submit a written spill report within 14 days. The Discharger shall also notify the California Emergency Management Agency (CalEMA), the Napa County Environmental Health Department, and the California Department of Fish and Game as appropriate. The Discharger shall also comply with the spill reporting requirements of State Water Board Order 2006-0003-DWQ.
3. By **1 February of each year**, the Discharger shall submit an *Annual Flow Meter Calibration Report* certifying that all flow meters used for determining compliance with the WDRs and this Order have been independently calibrated by a third party.

### Interim Spill Prevention Measures

4. By **1 November 2010**, the Discharger shall submit and implement an *Interim Spill Prevention and Control Plan* that describes the specific means and methods that the Discharger will implement to prevent and minimize spills of wastewater to surface water until the long-term capacity improvements required by this Order have been completed. At a minimum, the plan shall include:
  - a. The results of a preliminary evaluation of the integrity of the tailwater storage pond berm. The evaluation shall be completed by a registered Geotechnical Engineer and shall include specific operational and monitoring practices to maintain berm integrity until a full evaluation and repair of the berm are completed.
  - b. Consideration of the benefits mandatory water rationing and other user-based controls to reduce wastewater and I/I flows to the WWTF.
  - c. Consideration of interim emergency land discharge area(s), including identification of sites, temporary conveyance systems needed to transfer wastewater to the disposal site, tailwater/runoff controls, and compliance with the California Environmental Quality Control Act (CEQA).
  - d. A proposed timeline for implementation.

### I/I and Capacity Evaluation

5. By **1 November 2011**, the Discharger shall submit a *Preliminary Revised Inflow and Infiltration (I/I) Assessment Report*, and by **1 November 2012**, the Discharger shall submit a *Final Revised Inflow and Infiltration (I/I) Assessment Report*. The reports shall each include the following:
  - a. The results of a supplemental I/I evaluation of the Berryessa Highlands subdivision collection system based on inspection and/or testing completed after 1 September 2009.
  - b. A design long-term I/I flow rate for the Berryessa Highlands subdivision in terms of peak monthly I/I and total annual I/I that will be used as (a) the design basis for capacity improvements and (b) to determine the I/I correction work that must be completed to reduce I/I flows to the design level.
  - c. A design long-term I/I flow rate for new sewers to be installed for future development at the Berryessa Highlands subdivision and Reclamation's concessionaire (i.e., the former Steel Park Resort). This shall be supported by definition of materials and installation methods, including standard specifications, to be required for all new sewers, manholes, and lift stations.
  - d. Water balances for the WWTF that quantify the treatment, storage, and disposal capacity deficit for the following scenarios:
    - i. The current collection system without further I/I reduction (recognizing the Connection Restriction for Berryessa Highlands and Reclamation's concessionaire);

- ii. The current collection system at the design long-term I/I rate (recognizing the Connection Restriction for Berryessa Highlands and Reclamation's concessionaire); and
- iii. The projected 2022 development level at Berryessa Highlands and Reclamation's concessionaire, at the design long-term I/I rate.

The water balances shall be submitted in both digital spreadsheet and paper copy format and shall:

- i. Document and justify all model inputs (whether assumed, estimated, or measured);
  - ii. Document and justify the method of calculation for all model outputs;
  - iii. Be based on site-specific pond geometry, slopes, soil types, and soil property test results;
  - iv. Be based on site-specific average daily dry weather flows, design long-term I/I flows, precipitation, pond evaporation, evapotranspiration, percolation, runoff, and run-on as appropriate. These inputs shall be distributed over the twelve months of the year based on reasonable estimates of seasonal distribution;
  - v. Be based on the 100-year, 365-day precipitation event for one or more nearby precipitation monitoring stations as deemed appropriate by the engineer of record;
- e. Definition of all sewer system repairs, retrofits, and replacements that must be completed to reduce I/I in both the existing Berryessa Highlands subdivision sewer system and Reclamation's concessionaire sewer connection system to the design long-term I/I rate defined pursuant to 5.b above.
- f. A proposed schedule for completion of the work defined pursuant to 5.e above. The schedule for completion shall not extend beyond **1 October 2014**.
6. By **1 October 2014**, the Discharger shall submit an *I/I Correction Project Completion Report* that documents completion of all of the all sewer system repairs, retrofits, and replacements defined pursuant to 5.e above. The report shall document all work completed, any conditions encountered that deviated from the conditions assumed in development of the scope of work, any deviations from the scope of work defined pursuant to 6.a above, and justification for any deviations from the original scope.

### Capacity Expansion

7. By **1 November 2011**, the Discharger shall submit a *Preliminary Revised Wastewater Facilities Plan* that describes the WWTF improvements needed to address the items listed below. By **1 November 2012**, the Discharger shall submit a *Final Revised Wastewater Facilities Plan*. The Revised Wastewater Facilities Plan shall reflect all necessary improvements to:
- a. Increase in the overall storage and disposal capacity as necessary to accommodate design average dry weather flows and design long-term I/I flows during the 100-year, 365-day precipitation event;



- b. Provide sufficient wastewater storage and disposal capacity for current connections, projected growth within the Berryessa Highlands subdivision, and full build out of the concessionaire's resort;
- c. Prevent sanitary sewer overflows; and
- d. Ensure the structural stability of all wastewater containment systems at the maximum design operating level, which must provide at least two feet of freeboard for all unlined ponds with earthen berms.

If desired, the overall improvements project may be split into two phases as follows:

- Phase I shall include, at a minimum, service to existing connections, projected subdivision growth through 2017, and planned resort development through 2017.
- Phase II shall include, at a minimum, service to existing connections, projected subdivision growth through 2022, and planned resort development at full build out.

Each phase must be designed to comply with requirements a through d above.

The *Revised Wastewater Facilities Plan* shall provide a detailed schedule for the Phase I and Phase II projects that includes planning, CEQA compliance, project financing, engineering design, permitting, contractor procurement, construction, and startup testing. The schedule shall show that the Phase I expansion project will be completed by **1 October 2015** and the Phase II project will be completed by **1 October 2017**. The Final *Revised Wastewater Facilities Plan* shall include a completed CEQA Initial Study (and equivalent NEPA document, if required) that determines whether an Environmental Impact Report/Environmental Impact Statement (EIR/EIS) will be required. If the Initial Study determines that an EIR/EIS is required, the interim milestone and final compliance dates for the Phase I and Phase II projects will each be extended by one year as noted below, and the Phase I project would then be required to include all projected flows through 2018.

8. **By 1 November 2011**, the Discharger shall submit a *Preliminary Collection System Improvement and Wastewater Facilities Financing Plan* that describes the items listed below. **By 1 November 2012**, the Discharger shall submit and implement a *Final Collection System Improvement and Wastewater Facilities Financing Plan* that describes the following:
  - a. The estimated cost associated with completion of the Phase I and Phase II expansion projects as defined in this Order;
  - b. All mechanisms available to including, but not limited to, low interest loans, grants, user fees, special assessments, and bonds;
  - c. A detailed plan and schedule for obtaining funding for completion of the Phase I and Phase II expansion projects as defined in this Order.
9. **By 1 April 2013**, the Discharger shall submit a Report of Waste Discharge to apply for revised Waste Discharge Requirements. The RWD shall include a completed Form 200 (*Application for Report of Waste Discharge*) and a technical report that addresses all items listed in Attachment A of this Order, "*Additional Information Requirements for a Report of Waste Discharge*." The Report of Waste Discharge shall include a complete description of

the planned facility improvements at the 70 percent design level and demonstrate that the proposed improvements will provide sufficient capacity for the Berryessa Highlands subdivision and Reclamation's concessionaire through at least 2022, based on the growth projection provided pursuant to 7.a through c above, and that the discharge will comply with State Water Resources Control Board Resolution No. 68-16 (the Antidegradation Policy) and other applicable policies. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 April 2014.

10. By **1 January 2014**, the Discharger shall certify that procurement for the expansion project is underway. Specifically, the Discharger shall certify that the project documents have been issued for bidding by prospective contractors. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 January 2015.
11. By **1 May 2014**, the Discharger shall submit a copy of the Notice of Award of the construction contract for the expansion project. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 May 2015.
12. By **1 October 2015**, the Discharger shall certify that the Phase I expansion project construction has been completed and that start-up testing has begun. The certification shall include a discussion of any significant deviations from the approved design. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 October 2016.
13. By **1 December 2015**, the Discharger shall certify that start-up testing has been completed and that the new/improved WWTF is fully operational at the design capacity. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 December 2016.
14. By **1 October 2017**, unless the Phase II capacity expansion project was completed at the same time as the Phase I project, the Discharger shall certify that the Phase II expansion project construction has been completed, that start-up testing has been completed and that the new/improved WWTF is fully operational at the design capacity. If the Initial Study determines that an EIR/EIS is required, the compliance date for this item will be extended to 1 October 2018.

#### Compliance with Groundwater Limitations

15. By **1 February 2012**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan* that proposes installation of a background groundwater monitoring well. The well boring shall be drilled using techniques suitable for hard rock drilling and, if groundwater is not encountered within the weathered bedrock, the boring shall penetrate at least 20 feet into competent bedrock. The well design shall include a screen that extends from weathered bedrock to the bottom of the boring. The workplan shall contain items found in the first section of Attachment B.
16. By **1 October 2012**, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* that describes the installation of the background groundwater

monitoring well installed in accordance with the approved Groundwater Monitoring Well Installation Workplan. The well installation report shall contain items found in the second section of the Attachment B.

### Progress Reporting

17. Beginning **1 November 2010**, 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. In addition, the Discharger shall identify the interim measures it has taken to prevent unauthorized wastewater discharges.

### Sewage Connection Restriction

18. Connections to the sewage collection system by individual households or businesses that did not have a building permit approved prior to the 12 September 2006 Public Hearing Notice (issued for CDO R5-2006-0113) are prohibited.
19. Reclamation's concessionaire at the former Steele Park Resort (currently known as Lupine Shores) is prohibited from connecting to the Discharger's sewer system and discharging wastewater into the collection system or WWTP until the Discharger has constructed facilities to increase the storage and disposal capacity and has (a) submitted a water balance showing that it can accept the wastewater and remain in compliance with the WDRs, and (b) submitted documentation showing that the collection system on the resort property has been constructed in compliance with the standard specifications described in 5.c., above.
20. The Central Valley Water Board decided to exclude the following projects from the sewage connection restriction because they had completed all steps to obtain a building permit prior to the 12 September 2006 Public Hearing Notice for CDO R5-2006-0113 except for the ministerial action of paying the permit fee:
  - a. Johnpeer (1122 Rimrock Drive; Building Permit No. B06-01305);
  - b. Nix (4645 Monticello Road; Building Permit No. B06-01258);
  - c. Penley (Neptune Way; Building Permit No. B06-01142);
  - d. Raymond (1020 Overland Drive; Building Permit No. B06-01338), and
  - e. Raymond (342 Black Oak Lane; Building Permit No. B06-01374).

Subsequently, in a 5 December 2007 letter, the Executive Officer allowed the transfer of a building permit from a parcel on Westridge Drive (APN 019-472-008) back to 1122 Rimrock Drive (Building Permit No. B06-01305) at the request of the property owner at 1122 Rimrock Drive.

21. The following may be excluded from the sewage connection restriction upon a project-specific determination of eligibility by the Central Valley Water Board:

- a. Projects which normally do not require a building permit and for which construction commenced prior to the 12 September 2006 Public Hearing Notice;
  - b. Projects which would eliminate discharges from existing dwellings which have failing systems whose threat to water quality or public health is greater than that of the existing collection system; and
  - c. Projects that would alleviate an extreme public hardship or public health problem.
22. The sewage connection restriction will remain in effect until removed by the Central Valley Water Board. The Central Valley Water Board may remove the restriction upon finding that the violations of requirements which were the basis for imposing the restriction have ceased and consistent compliance with those requirements has been achieved.
23. The Central Valley Water Board may, prior to removing the sewage connection restriction, grant a limited exception to allow additional connections to the sewage collection system upon finding that the Discharger has met the following conditions:
- a. Consistent compliance with requirements can be achieved only by construction of a facility which will take a substantial period of time to complete;
  - b. The Discharger has the capacity, authority, and financial resources to complete the corrective measures necessary to achieve compliance and is currently proceeding with such corrective measures;
  - c. The corrective measures necessary to achieve compliance will be completed and placed into operation by the Discharger in the shortest practicable time;
  - d. All practicable interim repairs and improvements which can be made have been made; and
  - e. During the interim period of time until compliance with requirements can be fully achieved, the discharge will be managed, operated, maintained and repaired so as to reduce to a minimum the violations which resulted in the imposition of the connection restriction, and that such minimum violations for the interim period of time involved will not significantly impair water quality or beneficial uses.
24. The Central Valley Water Board shall, upon finding that the above conditions are no longer met by the Discharger, revoke the exception and re-impose the sewage connection restriction.

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. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all technical reports shall be prepared by, or under the supervision of, a California Registered Engineer or Professional Geologist and signed/stamped by the registered professional.

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

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date that this Order becomes final, except that if the thirtieth day following the date that this Order becomes final falls on a Saturday, Sunday, or state holiday (including mandatory furlough days), the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality)

or will be provided upon request.

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 23 September 2010.

*Original signed by:*

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PAMELA C. CREEDON, Executive Officer

Attachment A Additional Information Requirements for a Report of Waste Discharge for the WWTF  
Attachment B Requirements for Monitoring Well Installation Workplans and Monitoring Well  
Installation Reports

gjc/alo/wsw: 30 Sept-10

**ATTACHMENT A**  
**ADDITIONAL INFORMATION REQUIREMENTS**  
**FOR A REPORT OF WASTE DISCHARGE**  
**NAPA BERRYESSA RESORT IMPROVEMENT DISTRICT**

Provide a technical report prepared by a California Registered Civil Engineer that presents the following information:

1. A narrative description of all wastewater conveyance, treatment, and disposal systems currently existing at the facility.
2. A narrative description of all planned physical improvements, their purpose, and anticipated completion dates. If phased build out is planned provide scope and completion dates for each phase.
3. A process flow diagram, scaled treatment plant site plan, and scaled map(s) showing all existing and proposed effluent disposal areas (including conveyance and tailwater control systems).
4. For each pond and other waste containment structure, provide the following information. Discuss both existing and proposed ponds:
  - a. Identification (name) and function of the pond;
  - b. Surface area, depth, and volumetric capacity at two feet of freeboard;
  - c. Height (relative to surrounding grade), crest width, interior slope, and exterior slope of each berm or levee;
  - d. Materials used to construct each berm or levee;
  - e. Description of engineered liner, if any;
  - f. Estimated steady state percolation rate for each unlined pond;
  - g. Depth to shallow groundwater below the planned base of the ponds;
  - h. Overfilling/overflow prevention features; and
  - i. Operation and maintenance procedures.
5. For each reclamation site, provide:
  - a. Complete ownership information.
  - b. A scaled map showing the topography, property boundary, streets, residences, surface waters, etc. A USGS topo map may be sufficient as a base map.
  - c. A scaled map showing the limits of the reclamation areas, reclaimed water conveyance systems, other irrigation water conveyance systems, on-site drainage, tailwater systems, and runoff controls (existing and proposed).
  - d. Net irrigation area.

- e. Method(s) of irrigation, including typical frequency and depths of application for each month when irrigation will occur.
  - f. Typical cropping practices (crops grown, rotation cycles, use of fertilizers and pesticides, etc.).
  - g. Typical storm water management practices.
6. A description of the sources and types of wastewater flowing into the wastewater treatment system, design flow rates, and the design capacity of the system (existing and proposed). Include projected infiltration/inflow rates and peaking factors used in design calculations.
  7. A description of emergency wastewater storage facilities or other means of preventing system bypass or failure during reasonably foreseeable overload conditions (e.g., power failure, sewer blockage, and illicit sewer discharges). Consider both potential problems at the plant and within the community sewer system.
  8. A description of the community sewer system: materials, age, infiltration/inflow estimate, and lift station details (type, location, capacity, backup systems, and alarm features).
  9. Chemical characterization of influent wastewater quality, including biochemical oxygen demand, total suspended solids, total dissolved solids, and nitrogenous compounds. Include a discussion of seasonal variations, if any, and supporting analytical data.
  10. A description of all known or anticipated industrial and commercial dischargers whose individual BOD, total dissolved solids and/or hydraulic loads will be greater than 2% of the plant's total daily influent loading, including the following:
    - a. Name;
    - b. Industry/business type;
    - c. Nature of waste stream;
    - d. Average daily flow (gpd and percentage of total plant loading);
    - e. Peak daily flow;
    - f. Average daily BOD loading (lb/day and percentage of total plant loading);
    - g. Peak daily BOD loading;
    - h. Salinity (e.g., total dissolved solids, electrical conductivity, major ions);
    - i. Nitrogen (all forms);
    - j. Nature of seasonal or diurnal variations in influent flow or quality, if any; and
    - k. Pre-treatment or self-monitoring programs, if any.
  11. A description of the following for the both existing system and each phase of the proposed expansion:

- a. Average dry weather flow;
  - b. Peak wet weather flow; and
  - c. Effluent quality at the point of discharge to the disposal system (BOD, total suspended solids, settleable matter, nitrogenous compounds, electrical conductivity, pH, and total coliform organisms).
12. Narrative description of expected solids generation rates and handling/storage procedures:
- a. Debris;
  - b. Grit and screenings; and
  - c. Biosolids.
13. Narrative description of proposed solids disposal practices for debris, grit, screenings, and biosolids:
- a. Method of disposal;
  - b. Frequency of disposal;
  - c. Disposal site/area name(s) and location(s); and
  - d. For biosolids (if beneficial re-use is proposed for reclamation sites):
    - Land application rates (dry tons per unit area per application, number of applications per year);
    - Soil incorporation practices;
    - Vegetation grown;
    - Runoff controls, if any; and
    - Public access controls.
14. A description of the types of soil underlying any planned ponds and effluent disposal areas (include a copy of the geotechnical report).
15. Projected monthly water balance for each phase of buildout demonstrating adequate containment capacity for the 100-year return period total annual precipitation, including consideration of at least the following.
- a. A minimum of two feet of freeboard in each pond at all times;
  - b. Historical local evaporation data (monthly average values);
  - c. Local precipitation data with the 100-year return period annual total distributed monthly in accordance with mean monthly precipitation patterns;
  - d. Proposed wastewater loading rates distributed monthly in accordance with expected seasonal variations;



- e. Projected long-term percolation rates (including consideration of percolation from unlined ponds and the effects of solids plugging on all ponds); and
  - f. Projected irrigation usage rates (if recycling is proposed).
16. Proposed flow limits and basis for the limit for the current facility and each phase of the planned expansion. Consider dry weather flows vs. peak flows and seasonal variations associated with major industrial dischargers. Include the technical basis for the proposed flow limit (e.g., design treatment capacity; hydraulic capacity of a main lift station, headworks, or other system element; and demonstrated effluent disposal capacity).
17. A narrative description of plant operation and maintenance procedures to be employed, including those associated with effluent storage and disposal.
18. A description of any policies or facility design features that reduce the potential for groundwater degradation (best practicable treatment and control or BPTC measures). Such features might include industrial discharger effluent quality limits, prohibitions on discharge of certain types of waste, advanced treatment, disinfection, concrete treatment structures, and pond lining systems.
19. Provide a technical report prepared by a Professional Geologist or Certified Hydrogeologist that provides an assessment of the following:
- a. Baseline groundwater quality at each new disposal or reclamation site.
  - b. Groundwater degradation, if any, that has resulted from the existing operation; and
  - c. The potential for the proposed effluent disposal expansion to degrade groundwater quality (at the plant and at reclamation/disposal sites).

This assessment must be made based on site-specific data and must provide technically-based answers to the following questions based on historical data and supplemental data to be collected for the purpose of this study:

- ◆ What is the groundwater elevation and gradient at the existing facility? At least one new well will be required to better define background groundwater quality outside the influence of any mounding around the ponds and at least one more well will be required downgradient of the existing ponds.
- ◆ What is background shallow groundwater quality for typical municipal waste constituents? Compare to established water quality objectives for protection of the beneficial uses of groundwater.<sup>1</sup>
- ◆ What is the groundwater quality data downgradient of the existing WWTP and application areas.

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<sup>1</sup> Include analyses for the following: BOD, total coliform organisms, total dissolved solids, ammonia (as N), total Kjeldahl nitrogen, nitrate (as N), nitrite (as N), and a complete anion/cation scan with ion balance. Total coliform organisms shall be determined using the 15- or 25- tube method.

- ◆ For each monitored constituent, has the existing facility degraded groundwater quality? If so:
  - What constituents exceed the applicable water quality objective?
  - What constituents exceed background concentrations?
  - Based on site hydrogeology, is the degradation contained within a defined area (or one that could be defined by additional investigation)?
  - What Best Practicable Treatment and Control (BPTC) methods will be utilized to minimize the degradation?
- ◆ What are subsurface conditions at the proposed new disposal sites?<sup>2</sup>
- ◆ What is the character of groundwater quality at the proposed new disposal sites?<sup>2</sup>
- ◆ Based on site hydrogeology, the nature of the waste, and the proposed disposal method, what level of degradation is expected to result from the expansion (if any)?
- ◆ If the proposed expansion will cause degradation, how will the degradation be confined or controlled?
- ◆ At a minimum, the report shall include the following:
  - Rationale for field investigation approach.
  - Description and documentation of all proposed investigational methods and activities.
  - Description of the site hydrogeology including stratigraphy, hydraulic conductivity of the soils, capillary rise, groundwater elevation and gradient, transmissivity, and influence of all recharge and pumping sources (i.e., a site conceptual model)
  - A detailed map showing locations of all water wells including springs and isolated wetlands within one mile of the WWTP and land application areas.
  - Description of fate and transport mechanisms for all monitored constituents.
  - Description of data reduction/analysis techniques and results.
  - Presentation of historical and supplemental site-specific soil and groundwater data.
  - Comparison of groundwater quality data to background groundwater quality and water quality objectives for each constituent.
  - An analysis of all data and conclusions regarding each of the above questions.

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<sup>2</sup> This must be based on subsurface investigation at the proposed disposal site including soil borings and/or cone penetrometer tests and groundwater analyses. Groundwater samples may be obtained using a one-time sampling method such as Hydropunch®.

**ATTACHMENT B  
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 which 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



# California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair



**Linda S. Adams**  
Secretary for  
Environmental  
Protection

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Phone (916) 464-3291 • FAX (916) 464-4645  
<http://www.waterboards.ca.gov/centralvalley>

**Arnold  
Schwarzenegger**  
Governor

1 October 2010

Donald Ridenhour, District Engineer  
Napa Berryessa Resort Improvement District  
1195 Third Street, Room 201  
Napa, CA 94559-3092

**CERTIFIED MAIL**  
**7009 1410 0002 1421 7645**

## **NOTICE OF ADOPTION OF CEASE AND DESIST ORDER AND CONNECTION RESTRICTION NAPA BERRYESSA RESORT IMPROVEMENT DISTRICT NAPA COUNTY**

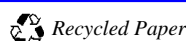
Cease and Desist Order (CDO) No. R5-2010-0101 for the Napa Berryessa Resort Improvement District Wastewater Treatment Facility was adopted with amendments by the California Regional Water Quality Control Board, Central Valley Region, at its 23 September 2010 meeting.

Pursuant to California Water Code section 13301 and California Code of Regulations, title 23, section 2244(b), the connection restriction does not allow new structures to connect to the Napa Berryessa Resort Improvement District wastewater collection system (including the Lupine Shores Resort) except those authorized by a building permit issued prior to 12 September 2006. Projects for which building permits were issued prior to 12 September 2006 are specifically referenced in the CDO.

The CDO contains a compliance schedule with specific dates for submitting reports and completing certain tasks associated with the wastewater system. Please review your CDO carefully to ensure that you understand all aspects of the Order. The reports required by the CDO include the following:

<b>Required Report</b>	<b>Due Date</b>
Quarterly Progress Reports	1 November 2010 (quarterly thereafter)
Flow Meter Calibration Report	1 February of each year
Interim Spill Prevention and Control Plan	1 November 2010
Preliminary Revised Inflow and Infiltration (I/I) Assessment Report	1 November 2011
Preliminary Revised Wastewater Facilities Plan	1 November 2011
Preliminary Collection System Improvement and Wastewater Facilities Financing Plan	1 November 2011
Groundwater Monitoring Well Installation Workplan	1 February 2012

*California Environmental Protection Agency*



<b>Required Report</b>	<b>Due Date</b>
Groundwater Monitoring Well Installation Report	1 October 2012
Final Revised I/I Assessment Report	1 November 2012
Final Revised Wastewater Facilities Plan	1 November 2012
Final Collection System Improvement and Wastewater Facilities Financing Plan	1 November 2012
Report of Waste Discharge	1 April 2013
Report certifying that the procurement for the expansion is complete.	1 January 2014
Copy of Notice of Award of Construction Contract	1 May 2014
I/I Correction Project Completion Report	1 October 2014
Report certifying completion of the Phase I expansion project and that start-up testing has begun.	1 October 2015
Report certifying that start-up testing has been completed and that the new/improved Wastewater Treatment Facility (WWTF) is fully operational at the design capacity.	1 December 2015
Report certifying that the Phase II expansion project construction has been completed, that start-up testing has been completed and that the new/improved WWTF is fully operational at the design capacity. (To be submitted only if the Phase II capacity expansion project was not completed at the same time as the Phase I project.)	1 October 2017

In order to conserve paper and reduce mailing costs, a paper copy of the order has been sent only to the Discharger. Interested parties are advised that the full text of this order is available on the Water Board's web site at [http://www.waterboards.ca.gov/centralvalley/adopted\\_orders](http://www.waterboards.ca.gov/centralvalley/adopted_orders). Anyone without access to the Internet who needs a paper copy of the order can obtain one by calling Water Board staff.

If you have any questions regarding the CDO please call Guy Childs at (916) 464-4648.

*Original signed by*

ANNE L. OLSON, P.E., Chief  
Senior Water Resource Control Engineer  
Compliance and Enforcement Section

Enclosure: Adopted Cease and Desist Order No. R5-2010-0101

cc w/o enc: see attached list

cc w/o enc: Mike Finnegan, U.S. Department of Interior, Bureau of Reclamation, Folsom  
Peggi Brooks, U.S. Department of Interior, Bureau of Reclamation, Folsom  
Dan Kolda, U.S. Department of Interior, Bureau of Reclamation, Napa  
Reed Sato, State Water Resources Control Board, Sacramento  
Alex Mayer, State Water Resources Control Board, Sacramento  
Patrick Pulupa, State Water Resources Control Board, Sacramento  
David Coupe, State Water Resources Control Board, Sacramento  
Diane Dillion, Napa County Board of Supervisors, Napa  
Tom Capriola, Napa County District Counsel, Napa  
Helene Franchi, Napa County Executive Office, Napa  
Hillary Gitleman, Napa County Planning Department, Napa  
Steve Lederer, Napa County Department of Environmental Management, Napa  
Bill Jennings, California Sportfishing Protection Alliance, Stockton  
Roberta Larson, Somach Simmons & Dunn, Sacramento  
Georgi Maule-Ffinch, Pensus Lake Berryessa Properties LLC, Paradise Valley, AZ

gjc: 1 Oct-10