CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2004-0085

WASTE DISCHARGE REQUIREMENTS
FOR
MAHARISHI GLOBAL ADMINISTRATION THROUGH NATURAL LAW
MAHARISHI VEDIC SCHOOL WASTEWATER TREATMENT FACILITY
LAKE COUNTY

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

1. Maharishi Global Administration Through Natural Law (hereafter Discharger) submitted a Report of Waste Discharge (RWD), dated 7 January 2004 for updating Waste Discharge Requirements (WDRs) for the Maharishi Vedic School wastewater treatment facility. Supplemental information was received on 26 January.

2. For the purposes of this Order, the term "wastewater treatment facility" (WWTF) shall mean the sewage collection and transport system, the wastewater treatment system, and the evaporation/percolation ponds.

3. WDRs Order No. 88-079, adopted by the Regional Board on 20 May 1988, prescribes requirements for the Discharger's WWTF. This Order is neither adequate nor consistent with the current plans and policies of the Regional Board.

Wastewater Treatment and Disposal System

4. The Maharishi Vedic School WWTF is on Assessors Parcel Number 013-050-18 and is owned and operated by the Discharger. The facility is at 15205 State Highway 175 in Cobb, in Section 34, T12N, R8W, MDB&M, as shown on Attachment A, which is attached hereto and made part of this Order by reference.

5. The WWTF serves up to 200 people during the summer season and approximately 10 to 20 people during the off-season. The wastewater collection system consists of gravity sewer laterals serving approximately 70 structures ranging from small cabins to large congregation halls.

6. The wastewater treatment system consists of a gravity sewer collection system, primary settling tank, aeration tank, activated biofilter, clarifier, secondary settling tank, sludge return, discharge pump, chlorine injection pump, chlorine contact tank and two evaporation/percolation ponds, as shown on Attachment B, which is attached hereto and made part of this Order by reference.

7. Wastewater enters the treatment plant through a grit screen and flows into a 7,360-gallon primary settling basin. Any secondary settlement sludge is recycled back into the primary settling basin. Following primary settling, wastewater flows through a weir into a 7,900-gallon aeration basin where it is pumped to the activated bio-filter tower. Effluent from the aeration tank flows into an 11,840-gallon secondary clarifier and then through a 2-inch flow meter prior to chlorine injection. Chlorine injection is accomplished using a solenoid metering pump.

Wastewater then flows into a 1,000-gallon contact chamber prior to being discharged into one of two evaporation/percolation ponds.

8. The two evaporation/percolation ponds are unlined and each measures approximately 50 feet by 50 feet with a total storage capacity of approximately 149,610 gallons (allowing for two feet of freeboard).

9. The RWD indicates that the sludge generated by the treatment system is recirculated through the system and is biologically consumed. Grits and screenings are manually removed and disposed at a local landfill.

10. The Discharger has completed a water balance for the facility that demonstrates that there is adequate storage and disposal capacity available for the design monthly average influent flow rate of 277,200 gallons per month (including infiltration and inflow). The water balance was prepared based on the design average daily flow, a pond capacity of 149,610 gallons, local evaporation rates, and a 100-year total precipitation rate.

11. Flow rates at the facility vary greatly depending on the population using the facility. Prior to the installation of a flow meter, flows were estimated using lift station pump hour meter readings. Estimated flows have ranged from less than 1,440 gallons per day (gpd) to 9,360 gpd.

12. The Discharger has compiled the following effluent data from the WWTF. The results are given below. It is noted that the Discharger has never analyzed the effluent for nitrogen, total dissolved solids, electrical conductivity, coliform, or standard minerals.

Parameter	Units	Pump No. 1 Results[1]	Pump No. 2 Results[1]	Aeration Tank Results[1]	Chlorinator Results[1]
Biochemical Oxygen Demand (BOD)	mg/L	123.2	123.1	20.7	18
Total Suspended Solids (TSS)	mg/L	119	136.9	100.6	23.5

[1] Average concentrations based on data collected from September 2002 to August 2003.

Enforcement History

13. On 15 December 2000, the Discharger was issued a Notice of Violation (NOV) for a raw sewage overflow of several hundred gallons. The NOV required the Discharger to submit a technical report detailing the cause and chronology of the overflow, actions taken to respond to and mitigate the discharge, and a Contingency/Emergency Response Plan for preventing and controlling future discharges. In addition, the NOV required the Discharger to submit a RWD that provided an overall assessment of the actual design and integrity of the collection, treatment, and disposal systems.

14. After unsuccessful attempts by the Regional Board to obtain the technical report and the RWD, the Lake County District Attorney filled an eight-count misdemeanor complaint in July 2001. On 15 July 2002, the Discharger was issued a Stipulated Judgment and Order of Judgment No. CR 28993.01 by the Superior Court of the State of California. The Discharger was fined $27,000

and was required to comply with all corrective and/or mitigation measures and directives of the Regional Board.

15. The Stipulated Judgment and Order of Judgment requires the Discharger to operate the wastewater treatment system under the supervision of a person certified at a minimum of Grade II Operator or a Civil Engineer, and to modify the wastewater treatment plant no later than 1 November 2002. These modifications included: (a) installation of a baffle plate in front of the clarifier feed line, (b) installation of a "U" shaped mixing pipe in the chlorination tank, (c) installation of a semi-automatic liquid injection chlorination system with audible and status indicator lights, (d) installation of a permanent covering of all open areas of the treatment plant, and (e) installation of an electrical control panel at the treatment plant that included both visible and audible alarms for failure of lift pumps or sludge recirculation pumps.

16. The Stipulated Judgment and Order of Judgment also required the Discharger to submit to the Regional Board the following reports: (a) an Emergency Contingency Operations Plan, (b) an Operations Maintenance Manual, (c) an Inflow/Infiltration Assessment Technical Report, and (d) monthly status reports. All technical reports were to be stamped an signed by a registered professional.

17. Since the Stipulated Judgment and Order of Judgment was issued, the Discharger has submitted the above required technical reports and has made the following improvements to the treatment facility: (a) constructed an earthen berm above the east pump station to prevent surface storm water runoff, (b) installed emergency bypass pumps at both pump stations, (c) installed new float switches and a control panel, and two new pumps in the east pump station, (d) replaced the discharge lines at the west and east pump stations, (e) installed an additional pump at the west pump station, (f) modified the west pump station control panel to allow the pump station to operate in a duplex alternating mode, (g) installed a trash and grit screen at the entrance of the treatment plant, (h) replaced two recycle pumps, (i) installed a flow meter in the effluent line from the treatment plant, (j) installed a chlorine chemical feed pump, (k) installed a 1,000 gallon polyethylene chlorine contact chamber, (l) installed a new sludge recirculation pump, (m) rebuilt the treatment plant control panel, (n) installed a security fence surrounding the treatment plant, (o) installed plastic coving and fine mesh welded wire fabric over portions of the treatment plant to prevent leaves and debris from falling into the system, (p) removed oaks trees near the percolation ponds, (q) provided weekly flow measurements and monthly BOD and TSS testing, (r) installed a new treatment plant discharge pump and control system, and (s) performed testing and repair of the gravity sewer collection lines. In addition, the Discharger has contracted a Grade II Wastewater Treatment Plant Operator to operate the plant, and hired an engineering firm to prepare required reports.

Sanitary Sewer System

18. The sanitary sewer collection system consists of a series of gravity sewer laterals and two lift stations (west pump station and east pump station). These lift stations operate on a float switch system with predetermined high and low levels. Each lift station operates in a duplex system with two pumps that alternate each cycle. Both lift stations are automatically controlled and have visible and audible alarms, however, the audible alarms cannot be heard by the on-site staff.

This Order requires the Discharger to install a remotely operated alarm system at each lift station to notify the onsite staff in the event of a power loss or lift station malfunction.

19. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the wastewater treatment plant. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, etc.) may be part of a sanitary sewer system and discharges to these facilities are not considered sanitary sewer overflows, provided that the waste is fully contained within these temporary storage/conveyance facilities.

20. At the facility, sanitary sewer overflows consist of domestic sewage. The chief causes of sanitary sewer overflows include grease blockages, root blockages, debris blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and contractor caused blockages.

21. Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Sanitary sewer overflows can cause temporary excedences of applicable water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.

22. The Discharger is expected to take all necessary steps to adequately maintain, operate, and prevent discharges from its sanitary sewer collection system. The Discharger prepared a Sanitary Sewer Overflow Prevention and Response Plan in January 2003, and is required to implement this plan.

Site Specific Conditions

23. The average 100-year annual precipitation for this area is approximately 21.3 inches, based on rainfall data from the California Department of Water Resources Clearlake 4 Southeast Station and adjusted for variations in annual rainfall between Clearlake and Cobb.

24. Evapotranspiration rates for the area range from 1.81 to 8.07 inches per month, with the highest rate occurring in July.

25. All portions of the facility are outside the 100-year flood zone.

26. The facility lies within the Lakeport Hydrologic Unit Area No. 513.55, as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986.

27. According to the RWD, domestic water supply wells in the area show that the groundwater is approximately 140 feet below ground surface (bgs). It is unknown whether this is the first encountered groundwater or the level at which domestic wells are screened.

28. No information currently exists regarding the shallow groundwater underlying the evaporation/percolation pond. In order to determine compliance with the Groundwater

Limitations section of this Order, the Discharger is required to install and sample groundwater monitoring wells.

Basin Plan, Beneficial Uses and Regulatory Considerations

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

30. Surface water drainage from the WWTF is to an unnamed tributary to Kelsey Creek, which is a tributary to Clear Lake.

31. The beneficial uses of Clear Lake are municipal and domestic supply; agricultural supply; water contact recreation; noncontact water recreation; warm freshwater habitat, cold freshwater habitat; spawning, reproduction, and/or early development; and wildlife habitat.

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

33. Federal regulations for storm water discharges were promulgated by the U.S. Environmental Protection Agency on 16 November 1990 (40 CFR Parts 122, 123, and 124). The State Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001) specifying waste discharge requirements for discharges of storm water associated with industrial activities, and requiring submittal of a Notice of Intent by all affected industrial dischargers. The Discharger has not yet obtained coverage under General Permit No. CAS000001, and is required to do so.

34. The action to update WDRs for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance Title 14, California Code of Regulations (CCR), Section 15301.

35. Section 13267(b) of the California Water Code provides that: *"In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports."*

The technical reports required by this Order and the attached "Monitoring and Reporting Program No. R5-2004-0085" are necessary to assure compliance with these waste discharge requirements. The Discharger operates the facility that discharges the wastes subject to this Order.

36. The California Department of Water Resources sets standards for the construction and destruction of groundwater wells, as described in *California Well Standards Bulletin 74-90* (June 1991) and *Water Well Standards: State of California Bulletin 94-81* (December 1981). These standards, and any more stringent standards adopted by the state or county pursuant to CWC Section 13801, apply to all monitoring wells.

37. The discharge is except from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste,* as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq., (hereafter Title 27). The exemption pursuant to Section 20090(a), is based on the following:

    a. The waste consists primarily of domestic sewage and treated effluent;

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

    c. The treatment and storage facilities described herein are associated with a domestic wastewater treatment facility.

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

Public Notice

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

40. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

41. All comments pertaining to the discharge were heard and considered in a public meeting.

IT IS HEREBY ORDERED that Order No. 88-079 is rescinded and, pursuant to Sections 13263 and 13267 of the California Water Code, Maharishi Global Administration Through Natural Law, its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

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

A. Discharge Prohibitions:

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

2. Bypass or overflow of untreated or partially treated waste is prohibited.

3. Discharge of sewage from a sanitary sewer system at any point upstream of the treatment plant is prohibited. Discharge of treated wastewater downstream of the treatment plant, other than at the approved evaporation/percolation ponds, is prohibited.

4. Discharge of waste classified as 'hazardous', as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., (hereafter Chapter 15), or 'designated' as defined in Section 13173 of the California Water Code, is prohibited.

5. Surfacing of wastewater outside or downgradient of the evaporation/percolation ponds is prohibited.

6. The discharge of any wastewater other than that from domestic sources or domestic equivalent is prohibited.

B. Discharge Specifications:

1. The monthly average discharge from the treatment system shall not exceed 9,300 gpd.

2. Disposal of effluent shall be confined to the designated evaporation/percolation ponds as defined in this Order.

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

4. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.

5. Objectionable odor originating at the facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.

6. As a means of discerning compliance with Discharge Specification No.5, the dissolved oxygen content in the upper zone (1 foot) of the evaporation/percolation pond shall not be less than 1.0 mg/L.

7. Public contact with wastewater shall be precluded or controlled through such means as fences and signs, or acceptable alternatives.

8. The Discharger shall operate all systems and equipment to maximize treatment of wastewater and optimize the quality of the discharge.

9. The wastewater treatment, storage, and disposal system shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

10. The facility shall have sufficient treatment, storage, and disposal capacity to accommodate allowable wastewater flow, design seasonal precipitation, and ancillary infiltration and inflow during the winter months. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.

11. The freeboard in the evaporation/percolation ponds shall never be less than two feet as measured vertically from the water surface to the lowest point of overflow.

12. On or about **15 October** each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specifications No. 10 and No. 11.

13. The wastewater ponds shall be managed to prevent the breeding of mosquitoes. In particular,

    a. An erosion control program shall be implemented to ensure that small coves and irregularities are not created around the perimeter of the waste surface.

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

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

C. Effluent Limitations:

1. Wastewater discharged from the treatment plant to the evaporation/percolation ponds shall not exceed the following limits, or such concentrations as the Discharger determines necessary to ensure compliance with the Groundwater Limitations:

Constituent	Units	Monthly Average Concentration	Daily Maximum Concentration
BOD	mg/L	40	80
Total Coliform Organisms	MPN/100 mL	23	240

2. Effluent discharged to the percolation/evaporation ponds shall not have a pH of less than 6.5 of greater than 8.4.

D. Solids Disposal Specifications:

Sludge, as used in this document, means the solid, semisolid, and liquid residues that accumulate in the wastewater evaporation ponds.

1. Sludge shall be removed from the ponds as needed to ensure optimal operation and compliance with this Order.

2. Any on-site drying or storage of sludge shall be temporary, and the waste shall be controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or at concentrations that will violate the Groundwater Limitations of this Order.

3. Sludge shall be disposed of in a manner consistent with Title 27 and approved by the Executive Officer. Removal for further treatment, disposal, or reuse at disposal sites (i.e., landfills, WWTFs, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.

E. Groundwater Limitations:

Release of waste constituents from any system component associated with the wastewater treatment facility shall not cause groundwater under and beyond that system component (as determined by an approved well monitoring network) to contain any constituents in concentrations greater than ambient background conditions, and shall not cause or contribute to the violation of any Basin Plan narrative or numeric water quality objective.

F. Provisions

1. All of the following reports shall be submitted pursuant to Section 13267 of the California Water Code and shall be prepared as described by Provision F.3.

   a. **By 2 August 2004**, the Discharger shall provide written documentation that the sludge recycle pump that has experienced clogging problems has been replaced.

   b. **By 2 August 2004**, the Discharger shall provide written documentation that freeboard staff gauges have been installed in each of the evaporation/percolation ponds.

   c. By **2 August 2004**, the Discharger shall either apply for coverage or submit a Notice of Non Applicability for Order No. 97-03-DWQ, Discharges of Stormwater Associated with Industrial Activities.

   d. **By 2 September 2004**, the Discharger shall provide written documentation that a remotely operated alarm system at each lift station has been installed to notify the onsite staff in the event of a power loss or lift station malfunction.

e. **By 2 September 2004**, the Discharger shall provide a technical report showing that the problems identified in the Inflow/Infiltration Assessment Technical Report have been completed.

f. **By 1 November 2004**, the Discharger shall submit a *Groundwater Monitoring Well Installation Workplan and Groundwater Sampling and Analysis Plan*. The workplan shall describe the proposed installation of at least three groundwater monitoring wells around the wastewater ponds to allow evaluation of the groundwater quality upgradient and downgradient of the ponds. Every monitoring well 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 C, "*Items to be Included in a Monitoring Well Installation Workplan and a Monitoring Well Installation Report of Results."*

g. **By 1 May 2005**, the Discharger shall submit a *Groundwater Monitoring Well Installation Report* that describes the installation of groundwater monitoring wells and contains the items found in the second section of Attachment C.

h. **By 1 September 2006**, the Discharger shall submit a *Background Groundwater Quality Study Report*. For each groundwater monitoring parameter/constituent identified in the MRP, the report shall present a summary of monitoring data, calculation of the concentration in background monitoring wells, and comparison of background groundwater quality to that in wells used to monitor the facility. 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 four consecutive quarterly (or more frequent) groundwater monitoring events. For each monitoring parameter/constituent, the report shall compare measured concentrations in each of the monitoring wells with the proposed background concentration.

2. If groundwater monitoring results show that the discharge of waste is causing a violation of the groundwater limitations, then within 120 days of the request of the Executive Officer, the Discharger shall submit a report showing that degradation of the groundwater complies with SWRCB Resolution No. 68-16, i.e., that it is (a) in the best interest of the people of the state, (b) that best practical treatment and control measures have been implemented to reduce the amount of degradation, (c) that the groundwater degradation will not exceed applicable water quality objectives, and (d) that the degradation is confined within a specified boundary. If the Discharger cannot comply with Resolution No. 68-16, then within **120 days** of request by the Executive Officer, it shall submit a workplan and timeline detailing the facility modifications that shall be implemented such that it complies with the Groundwater Limitations of this Order.

3. 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. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered

professional(s). 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.

4. The Discharger shall comply with the Monitoring and Reporting Program No. R5-2004-0085, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

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

6. If groundwater monitoring results show that the discharge of waste is causing a violation of the groundwater limitations, then within 120 days of the request of the Executive Officer, the Discharger shall submit a report showing that degradation of the groundwater complies with SWRCB Resolution No. 68-16, i.e., that it is (a) in the best interest of the people of the state, (b) that best practical treatment and control measures have been implemented to reduce the amount of degradation, (c) that the groundwater degradation will not exceed applicable water quality objectives, and (d) that the degradation is confined within a specified boundary. If the Discharger cannot comply with Resolution No. 68-16, then within **120 days** of request by the Executive Officer, it shall submit a workplan and timeline detailing the facility modifications that shall be implemented such that it complies with the Groundwater Limitations of this Order.

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

8. Upon the reduction, loss, or failure of the sanitary sewer system resulting in a sanitary sewer overflow, the Discharger shall take any necessary remedial action to (a) control or limit the volume of sewage discharged, (b) terminate the sewage discharge as rapidly as possible, and (c) recover as much as possible of the sewage discharged (including wash down water) for proper disposal. The Discharger shall implement all applicable remedial actions including, but not limited to, the following:

   a. Interception and rerouting of sewage flows around the sewage line failure;
   b. Vacuum truck recovery of sanitary sewer overflows and wash down water;
   c. Use of portable aerators where complete recovery of the sanitary sewer overflows are not practicable and where severe oxygen depletion is expected in surface waters; and
   d. Cleanup of sewage-related debris at the overflow site.

9. The Discharger shall provide a certified wastewater treatment plant operator in accordance with Stipulated Judgment and Order for Judgment No. CR 28993.01.

10. The Discharger shall report to the Regional Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the

Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act of 1986."

11. The Discharger shall not allow pollutant-free wastewater to be discharged into the wastewater collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.

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

13. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

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

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

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

I, THOMAS R. PINKOS, 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 Regional Board, Central Valley Region, on 4 June 2004.

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THOMAS R PINKOS, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2004-0085

FOR
MAHARISHI GLOBAL ADMINISTRATION THROUGH NATURAL LAW
MAHARISHI VEDIC SCHOOL WASTEWATER TREATMENT FACILITY
LAKE COUNTY

This Monitoring and Reporting Program (MRP) presents requirements for monitoring domestic wastewater influent, effluent, evaporation/percolation ponds, groundwater, and sludge. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer. Specific sample station locations shall be approved by Regional Board staff prior to implementation of sampling activities.

All wastewater samples should be representative of the volume and nature of the discharge. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. All samples shall be collected and preserved in accordance with EPA and analytical methodology.

Field testing instruments (such as those used to test pH and dissolved oxygen) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The testing instruments shall be calibrated and serviced in accordance with manufacturer's recommendations; and
3. Field calibration reports are provided with the appropriate monitoring report.

INFLUENT MONITORING

Samples shall be collected at approximately the same time as effluent samples and should be representative of the influent. Influent monitoring shall include the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Flow	gpd	Continuous Meter	Daily	Monthly
BOD[1]	mg/L	Grab	Monthly	Monthly

[1] 5-day biochemical oxygen demand.

EFFLUENT MONITORING

Samples of effluent shall be collected from the wastewater treatment plant prior to discharge to the evaporation/percolation ponds. At a minimum, effluent monitoring shall consist of the following:

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
pH[1]	Standard	Grab	Monthly	Monthly
Total Coliform Organisms	MPN/100 ml [2]	Grab	Monthly	Monthly
BOD	mg/L	Grab	Monthly	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly	Monthly
Nitrate as Nitrogen	mg/L	Grab	Monthly	Monthly
Total Kjeldahl Nitrogen	mg/L	Grab	Monthly	Monthly
Standard Minerals [3]	mg/L	Grab	Annually	Annually

[1] A handheld meter may be used.
[2] Most probable number per 100 ml.
[3] Standard Minerals shall include, at a minimum, the following elements/compounds: calcium, chloride, magnesium, potassium, sodium, sulfate, total alkalinity (including alkalinity series), and hardness.

POND MONITORING

The evaporation/percolation ponds shall be monitored as follows. If the pond is empty on the scheduled monitoring date, the Discharger may report the freeboard monitoring result as "dry".

Constituent	Units	Type of Sample	Sampling Frequency	Reporting Frequency
Dissolved Oxygen [1]	mg/L	Grab	Weekly	Monthly
Freeboard	0.1 feet	Measurement	Weekly	Monthly
Odors	--	Observation	Weekly	Monthly
Levee condition[2]	--	Observation	Weekly	Monthly

[1] If the pond depth exceeds one foot, samples shall be collected at a depth of one foot from each pond in use, opposite the inlet. Samples shall be collected between 0700 and 0900 hours
[2] Containment levees shall be observed for signs of seepage or surfacing water along the exterior toe of the levees. If surfacing water is found, then a sample shall be collected and tested for total coliform organisms and total dissolved solids.

SURFACE WATER DIVERSION MONITORING

Surface water diversions near the east lift station shall be inspected prior to **15 October** of each year. These diversions shall be maintained to ensure that surface water runoff will not enter lift station. Results of inspection shall be included with the annual report.

GROUNDWATER MONITORING

The following program shall commence beginning with the second quarter 2005. Prior to construction and/or sampling of any groundwater monitoring wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the MRP and shall be sampled and analyzed according to the schedule below. Prior to sampling, the groundwater elevations shall be measured and the wells shall be purged at least three well volumes

until temperature, pH and electrical conductivity have stabilized. Depth to groundwater shall be measured to the nearest 0.01 feet. Samples shall be collected using standard EPA methods. Groundwater monitoring shall include, at a minimum, the following:

Constituent	Units	Type of Sample	Sampling Frequency[4]	Reporting Frequency[4]
Depth to Groundwater	0.01 feet	Measurement	Quarterly	Quarterly
Groundwater Elevation[1]	0.01 feet	Calculated	Quarterly	Quarterly
Gradient	feet/feet	Calculated	Quarterly	Quarterly
Gradient Direction	degrees	Calculated	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly	Quarterly
Nitrate as Nitrogen	mg/L	Grab	Quarterly	Quarterly
Total Kjeldahl Nitrogen	mg/L	Grab	Quarterly	Quarterly
PH	pH units	Grab	Quarterly	Quarterly
Total Coliform Organisms	MPN/100 ml [2]	Grab	Quarterly	Quarterly
Trihalomethanes[2]	µg/L	Grab	Quarterly	Quarterly
Boron	mg/L	Grab	Quarterly	Quarterly
Chloride	mg/L	Grab	Quarterly	Quarterly
Iron	mg/L	Grab	Quarterly	Quarterly
Manganese	mg/L	Grab	Quarterly	Quarterly
Sodium	mg/L	Grab	Quarterly	Quarterly
Standard Minerals[3]	mg/L	Grab	Annually	Annually

[1] Groundwater elevation shall be determined based on depth-to-water measurements using a surveyed measuring point elevation on the well and a surveyed reference elevation.

[2] Analysis shall be performed by EPA Method 8020 or equivalent.

[3] Standard Minerals shall include, at a minimum, the following elements/compounds: boron, calcium, magnesium, potassium, sulfate, total alkalinity (including alkalinity series), and hardness.

[4] Beginning with the second quarter 2005.

SLUDGE MONITORING

When sludge is removed from the ponds, at least one composite sample of sludge shall be collected in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for cadmium, copper, nickel, chromium, lead, and zinc. Sludge sampling and analysis records shall be retained for a minimum of five years. A log shall be kept of solid waste (grits and screenings) and sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

REPORTING

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

discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all Groundwater Monitoring Reports shall be prepared under the direct supervision of a Registered Engineer or Geologist and signed by the registered professional.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board by the **1st day of the second month** following the end of the reporting period (i.e. the January monthly report is due by 1 March). At a minimum, the reports shall include:

1. Results of the influent, effluent, pond, and sludge monitoring;
2. A comparison of the monitoring data to the discharge specifications and an explanation of any violation of those requirements;
3. If requested by staff, copies of laboratory analytical report(s);
4. A calibration log verifying calibration of all monitoring instruments and devices used to fulfill the prescribed monitoring program; and

B. Quarterly Monitoring Reports

Beginning with the second quarter of 2005, the Discharger shall establish a quarterly sampling schedule for groundwater monitoring such that samples are obtained approximately every three months. Quarterly monitoring reports shall be submitted to the Board by the **1st day of the second month after the quarter** (i.e. the January-March quarterly report is due by May 1st) and may be combined with the monthly report. The Quarterly Report shall include the following:

1. Results of groundwater monitoring;

2. A narrative description of all preparatory, monitoring, sampling, and analytical testing activities for the groundwater monitoring. The narrative shall be sufficiently detailed to verify compliance with the WDR, this MRP, and the Standard Provisions and Reporting Requirements. The narrative shall be supported by field logs for each well documenting depth to groundwater; parameters measured before, during, and after purging; method of purging; calculation of casing volume; and total volume of water purged;

3. Calculation of groundwater elevations, an assessment of groundwater flow direction and gradient on the date of measurement, comparison of previous flow direction and gradient data, and discussion of seasonal trends if any;

4. A narrative discussion of the analytical results for all groundwater locations monitored including spatial and temporal tends, with reference to summary data tables, graphs, and appended analytical reports (as applicable);

5. A comparison of monitoring data to the groundwater limitations and an explanation of any violation of those requirements;

6. Summary data tables of historical and current water table elevations and analytical results;

7. A scaled map showing relevant structures and features of the facility, the locations of monitoring wells and any other sampling stations, and groundwater elevation contours referenced to mean sea level datum; and

8. Copies of laboratory analytical report(s) for groundwater monitoring.

C. Annual Report

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

1. The contents of the regular groundwater monitoring report for the last sampling event of the year;

2. If requested by staff, tabular and graphical summaries of all data collected during the year;

3. An evaluation of the groundwater quality beneath the wastewater ponds;

4. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;

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

6. A summary of information on the management and disposal of grits and screenings, as well as sludge;

7. A copy of the certification for each certified wastewater treatment plant operator working at the facility and a statement about whether the Discharger is in compliance with Title 23, CCR, Division 3, Chapter 26;

8. The results from annual monitoring of the effluent and groundwater wells;

9. The results of the surface water diversion monitoring; and

10. A forecast of influent flows, as described in Standard Provision No. E.4.

A letter transmitting the self-monitoring reports shall accompany each report. Such a letter shall

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

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

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

4 June 2004
(Date)

INFORMATION SHEET

ORDER NO. R5-2004-0085
MAHARISHI GLOBAL ADMINISTRATION THROUGH NATURAL LAW
MAHARISHI VEDIC SCHOOL WASTEWATER TREATMENT FACILITY
LAKE COUNTY

The Maharishi Vedic School Wastewater Treatment Facility (WWTF) is owned and operated by Maharishi Global Administration Through Natural Law and is located at 15205 State Highway 175 in Cobb. The WWTF serves up to 200 people during the summer season and approximately 10 to 20 people during the off-season.

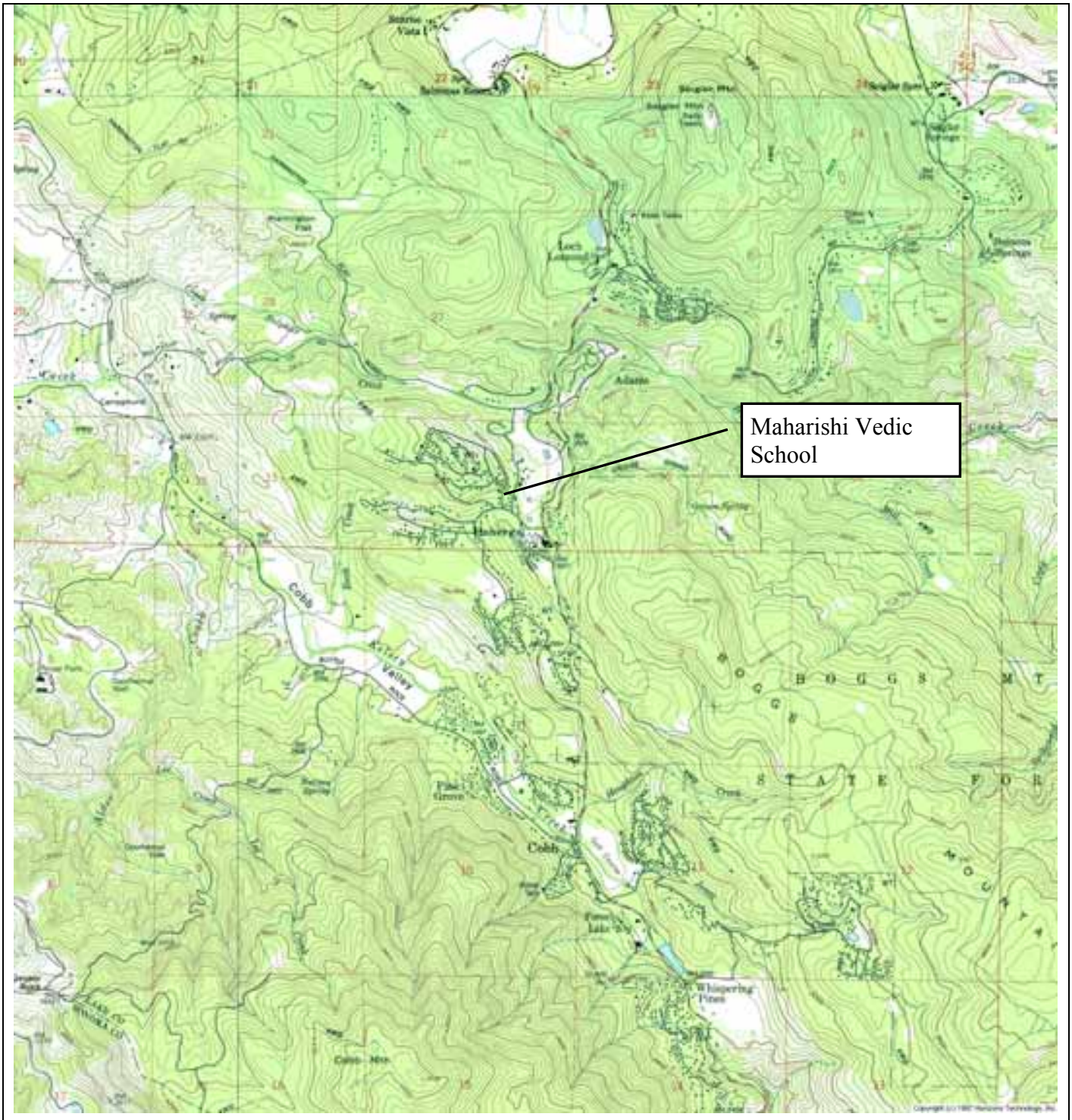
Wastewater is collected from approximately 70 structures ranging from small cabins to large congragation halls in gravity sewer laterals and flows to one of two sewer pump stations. From the pump stations, the wastewater is pumped to the treatment plant where it flows through a grit screen and into a 7,360 gallon primary settling basin. Any secondary settlement sludge is recycled back into the primary settling basin. Following primary settling, wastewater flows through a weir into a 7,900-gallon aeration basin where it is pumped to the activated bio-filter tower. Effluent from the aeration tank flows into an 11,840-gallon secondary clarifier and then through a 2-inch flow meter prior to chlorine injection. Chlorine injection is accomplished using a solenoid metering pump. Wastewater then flows into a 1,000-gallon contact chamber prior to being discharged into one of two unlined disposal ponds with a total storage capacity of approximately 149,610 gallons. This Order allows for a monthly average discharge of 9,300 gallons per day from the treatment system.

The Discharger was issued a Notice of Violation (NOV) on 15 December 2000 for a raw sewage overflow of several hundred gallons. The NOV required the Discharger to submit several technical reports and a Report of Waste Discharge. Following unsuccessful attempts by the Regional Board to obtain these documents, the Lake County District Attorney filled an eight-count misdemeanor complaint in July 2001. On 15 July 2002, the Discharger was issued Stipulated Judgment and Order of Judgment No. CR 28993.01 by the Superior Court of the State of California. The Discharger was fined $27,000 and was required to comply with all corrective and/or mitigation measures and directives of the Regional Board.

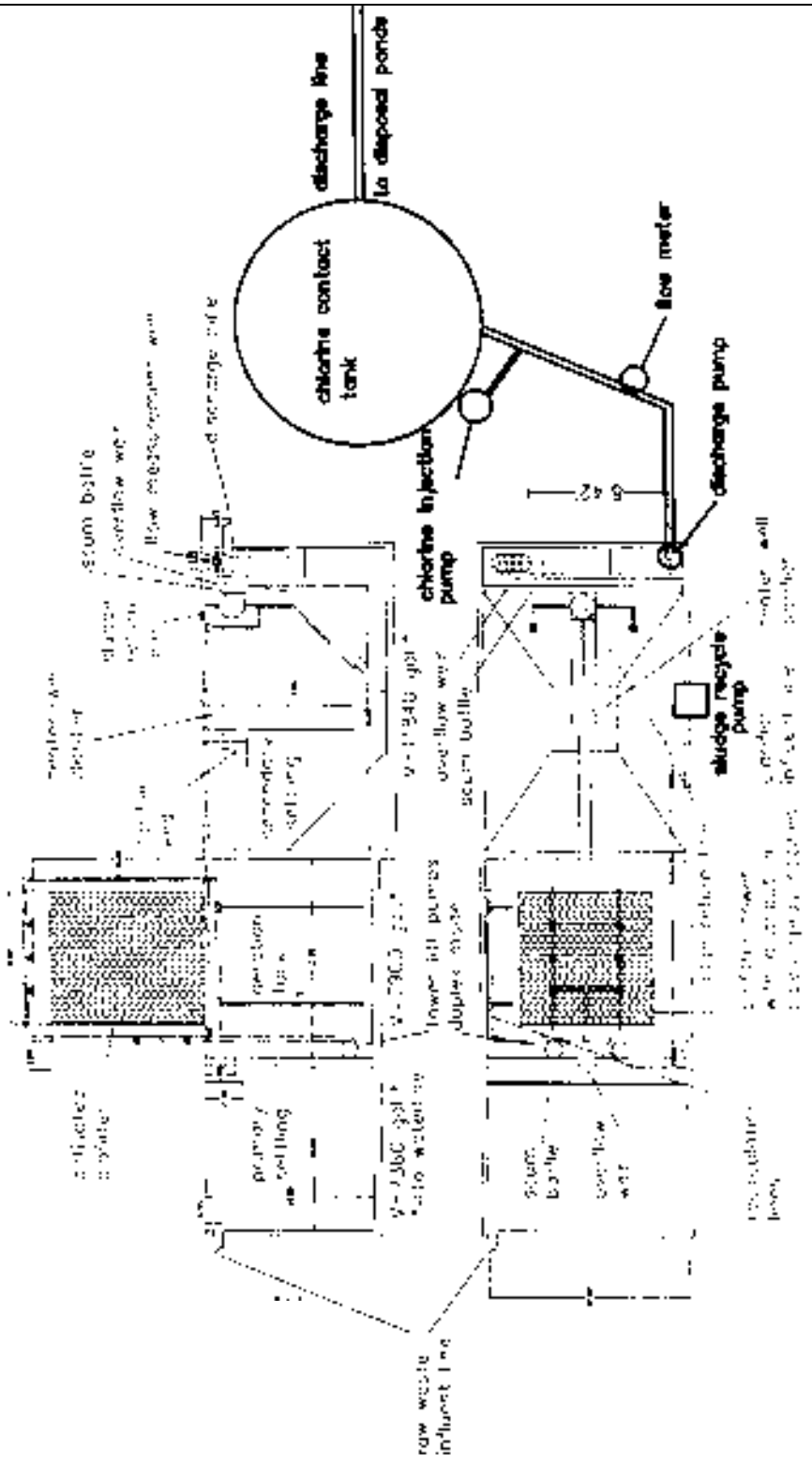
The Stipulated Judgment and Order of Judgment required that (a) the wastewater treatment system be operated under the supervision of a person certified at a minimum of Grade II Operator, or a Civil Engineer, (b) multiple system modifications be completed no later than 1 November 2002, and (c) the Discharger submit several technical reports. The Discharger has since performed the required modifications to the treatment plant, has submitted all required technical reports, and has hired a certified operator.

This Order requires the Discharger to submit a number of technical reports, including documentation that the sludge pump has been replaced, that freeboard staff gauges have been installed, and that a better alarm system has been installed on the lift stations. In addition, the Discharger is to submit a groundwater monitoring well installation workplan and an installation report. The Discharger is required to monitor the influent, effluent, and pond and submit monthly reports. Groundwater monitoring and reporting is required on a quarterly basis.

GJC:4-Jun-04



Drawing Reference: U.S.G.S TOPOGRAPHIC MAP 7.5 MINUTE QUAD	**SITE LOCATION MAP** Maharishi Global Administration Maharishi Vedic School LAKE COUNTY	N W E S approx. scale 1 in. = 2000 ft.



Drawing Reference: Ruzicka Associates Report of Waste Discharge January 2004	**WASTEWATER TREATMENT SYSTEM SCHEMATIC** MAHARISHI VEDIC SCHOOL 15205 STATE HIGHWAY 175 COBB, LAKE COUNTY

California Regional Water Quality Control Board
Central Valley Region
Robert Schneider, Chair

Terry Tamminen
Secretary for
Environmental
Protection

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Arnold Schwarzenegger
Governor

ORDER NO. R5-2004-0085
ATTACHMENT C
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 approve 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