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**Central Valley Regional Water Quality Control Board**

22 January 2016

Robert Radovan  
Aetna Resorts, LLC  
1336-D Oak Avenue  
St. Helena, CA 94574

**CERTIFIED MAIL**  
**7014 3490 0001 3008 2961**

**NOTICE OF APPLICABILITY, WATER QUALITY ORDER WQ 2014-0153-DWQ- R5191,  
AETNA RESORTS, LLC, AETNA SPRINGS RESORT, NAPA COUNTY**

Aetna Resorts, LLC (hereafter “Discharger”) submitted a report of waste discharge (RWD) dated 9 April 2013 describing the wastewater treatment facility for the southern portion of the Aetna Springs Resort (South Aetna) in Napa County. Supplemental information was provided on 14 June 2014 and 30 June 2015. A Title 22 Engineering Report was submitted to the Division of Drinking Water (DDW) on 22 May 2014. The Title 22 Engineering Report was amended per DDW comments and was resubmitted on 25 September 2014. Based on the information presented in the RWD and Title 22 Engineering Report, the wastewater treatment system and discharge is consistent with the requirements of the State Water Resources Control Board (State Water Board) *General Waste Discharge Requirements for Small Domestic Wastewater Treatment Systems*, Order WQ 2014-0153-DWQ (General Order). This letter provides notice that the General Order is applicable to the site as described below. You are hereby assigned WQ 2014-0153-DWQ-R5191 for the discharge.

Wastewater discharge from South Aetna is currently regulated by Waste Discharge Requirements (WDR) Order 86-188, which was adopted on 26 September 1986. The Discharger proposes to install a new wastewater treatment system and take the existing system out of service. Therefore, this NOA regulates the new South Aetna treatment system and WDR Order 86-188 will be rescinded at a future Board hearing.

You should familiarize yourself with the entire General Order and its attachments enclosed with this notice of applicability (NOA), which describe mandatory discharge and monitoring requirements. Site specific operational requirements and effluent limits are discussed in Section 2 of this NOA. The General Order contains additional operational and reporting requirements that are not summarized in Section 2. Sampling, monitoring, and reporting requirements applicable to your treatment and disposal methods must be completed in accordance with the appropriate treatment system sections of the General Order and the attached Monitoring and Reporting Program (MRP) 2014-0153-DWQ-R5191. The MRP was developed after consideration of your waste characterization and site conditions described in the attached memorandum. The Discharger is responsible for all the applicable requirements that exist in the General Order, this NOA, and the Title 22 Engineering Report.

## 1. FACILITY AND DISCHARGE DESCRIPTION

The Aetna Springs Resort is owned and operated by Aetna Resorts, LLC and is located in Pope Valley, Napa County. The facility is located in an area without a regional wastewater collection system; therefore, wastewater is collected and treated on-site. The site location is shown on Attachment A, which is attached hereto and is made part of this NOA by reference.

Two wastewater treatment systems exist at the facility. A septic tank and leach field system, permitted by Napa County, treats approximately 4,800 gallons per day (gpd) of domestic wastewater generated from a club house and golf course courtesy bathrooms located on the northern portion of the site (North Aetna). The Discharger is proposing to renovate the infrastructure and wastewater treatment system of South Aetna, which is currently regulated by WDR Order 86-188. The existing South Aetna wastewater treatment system consists of a septic tank and four small facultative ponds. This NOA regulates the South Aetna discharge and not the Napa County permitted North Aetna discharge. A site plan is presented on Attachment B, which is attached hereto and is made part of this NOA.

Renovations to the southern portion of the resort include rehabilitating historical buildings (currently uninhabitable) and the surrounding infrastructure to include areas for recreation, lodging, and dining. The old wastewater treatment system will be destroyed and a new treatment system will be constructed. The new treatment system will consist of grease interceptors, septic tanks, pump stations, an advanced treatment membrane bioreactor (MBR), an effluent pump tank, a chlorine disinfection system, a disinfected tertiary recycled water storage tank, subsurface irrigation on 10 acres of the North Aetna golf course, and subsurface disposal to a dripfield. The effluent pump tank will receive both disinfected and undisinfected wastewater. Undisinfected wastewater will be disposed to the subsurface dripfield area.

The RWD states that to prevent undisinfected wastewater from being applied to the golf course once the disinfection is activated, effluent will only be transferred to the disinfected tertiary recycled water storage tank once sensors indicate that the target residual chlorine concentration has been reached. However, as described in Section 2 below, the Discharger is required to meet coliform and turbidity requirements specified in Title 22 section 60304 prior to transferring effluent to the disinfected tertiary recycled water storage tank. A schematic of the wastewater treatment and disposal system is presented on Attachment C, which is attached hereto and is made part of this NOA.

The wastewater treatment system will be constructed in two phases to allow expansion of the treatment capacity as needed. For Phase 1, the grease interceptors, septic tanks, pump stations, golf course irrigation area, and dripfield area will be constructed to accommodate the higher flows expected in Phase 2, while the MBR treatment system and effluent pump tank will be designed for a monthly flow average of 14,000 gpd, with peak flows expected to be 22,200 gpd on the weekends. Phase 2 will include adding an additional MBR treatment system and effluent pump tank to accommodate the estimated monthly flow average of 24,000 gpd, with peak flows expected to be 37,200 gpd on the weekends. Prior to increasing flows to Phase 2 levels, the Discharger is required to submit a *Phase 2 Construction and Completion Report*. The projected wastewater quality after both phases is consistent with the characterization of wastewater in the General Order. Wastewater sludge will be hauled offsite to a permitted facility.

Storm water that falls on the site is not comingled with wastewater. Storm water runoff from the golf course is collected in an onsite storm water basin.

The Discharger installed nine groundwater monitoring wells (GM-1 through GM-9) in June 2012 to acquire baseline groundwater quality prior to discharging wastewater. The wells were sampled from October 2012 through October 2013. In summary, the groundwater flow direction was toward the southeast and the gradient ranged from 0.0129 ft/ft to 0.0219 ft/ft with an average depth to groundwater of 12 feet below ground surface. Groundwater monitoring results show that total dissolved solids (TDS), iron, and manganese concentrations exceeded the Secondary Maximum Contaminate Levels (MCL) of 500 mg/L, 300 µg/L and 50 µg/L, respectively, in all wells. Groundwater monitoring results of sodium and boron are variable but typically exceed the most stringent agricultural water quality goal of 69 mg/L and 700 µg/L, respectively. Nitrate-nitrogen concentrations in the monitoring wells were less than 10 mg/L and most of the wells had chloride and sulfate concentrations less than 250 mg/L, the secondary MCL.

Based on the provided source water quality and expected wastewater effluent quality, the only constituent that may cause groundwater degradation is nitrate. However, the effluent nitrate-nitrogen concentration is expected to remain less than 10 mg/L and not cause an exceedance of the Primary MCL in groundwater. Additionally, undisinfected effluent is not expected to threaten groundwater quality with respect to coliform organisms because the MBR treatment system inherently filters microorganisms from the effluent. The MRP of this NOA requires groundwater monitoring for six consecutive semiannual periods. If the discharge is not found to impact groundwater, the Discharger may request a reduced groundwater monitoring and reporting schedule.

## 2. SITE-SPECIFIC REQUIREMENTS AND EFFLUENT LIMITS

A copy of the General Order is enclosed with this NOA. The General Order is also available on the Internet at < [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2014/wqo2014\\_0153\\_dwq.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2014/wqo2014_0153_dwq.pdf) >. The wastewater treatment operator must be familiar with the requirements contained in the General Order, this NOA, Title 22 Engineering Report requirements, and the MRP.

Note that the General Order contains prohibitions and specifications that apply to all wastewater systems, and specifications that apply only to specific treatment and/or disposal systems. In addition to the requirements that apply to all systems, the specific requirements and effluent limits for your treatment system are summarized below.

### A. Prohibitions

This section applies to all discharges.

### B. Requirements by Wastewater System Type

The following sections apply in their entirety.

#### B.1. All Wastewater Systems

This section shall include the following site specific requirements.

##### B.1.a. Effluent flow limit from the MBR system.

Phase	Flow Limit as Monthly Average
Phase 1	14,000 gpd
Phase 2	24,000 gpd

B.1.I. Wastewater system setbacks.

Equipment or Activity	Domestic Well	Flowing Stream	Ephemeral Stream Drainage	Property Line	Lake or Reservoir
Septic tank, Treatment System, Collection System, and Effluent Pump Tank <sup>1</sup>	100 ft.	50 ft.	50 ft.	5 ft.	200 ft.
Disposal Area <sup>2</sup>	100 ft.	100 ft.	50 ft.	5 ft.	100 ft. <sup>4</sup>
LAA and Recycled Water Storage Tank <sup>3</sup>	50 ft.	25 ft.	50 ft.	25 ft.	75 ft. <sup>5</sup>

<sup>1</sup> Reference setbacks from “Septic Tank, Aerobic Treatment Unit, Treatment System, or Collection System” in Table 3 of General Order. Setbacks apply to the septic tanks, MBR treatment system, collection system, and effluent pumping tank.

<sup>2</sup> Reference setbacks from “Leach Field” in Table 3 of General Order. Setbacks apply to the subsurface dripfield areas.

<sup>3</sup> Reference setbacks from “LAA (disinfected tertiary recycled water)” in Table 3 of General Order based on proposed level of effluent treatment and disinfection. Setbacks apply to the disinfected tertiary recycled water storage tank and LAA portion of the golf course.

<sup>4</sup> The referenced California Plumbing Code setback of 100 feet is used based on the high level of treatment, use of disinfection, and use of subsurface disposal and irrigation.

<sup>5</sup> The referenced professional judgement setback (200 feet) is reduced to 75 feet based on the high level of treatment, use of disinfection, and use of subsurface disposal and irrigation. The LAA and nearest irrigation storage basin are approximately 80 feet apart at the closest location.

B.2. Septic Systems

The Discharger anticipates that at least nine septic tanks will be needed to accommodate the peak flows during Phase 2.

B.3. Aerobic Treatment Units

This section applies to the MBR treatment system, which consists of an aerated bioreactor and microfiltration system packaged as one unit. The major components of the units are a flow equalization chamber, sludge holding zone, and aeration zone with submerged microfiltration membranes.

B.6. Subsurface Disposal Systems

During times that subsurface irrigation to the golf course LAA cannot occur, undisinfected effluent from the MBR treatment system will be disposed to the subsurface dripfield. As shown on Attachment B, the primary subsurface dripfield comprises 140,000 square feet of a vineyard and has the capacity to accept up to 37,200 gpd of wastewater. The area was sized based on the more conservative hydraulic loading rate (0.3 gal/ft<sup>2</sup>/day) observed in the dripfield area. To maintain compliance with requirement B.6.e, the dripfield system will be constructed so that it will not be damaged by roots and removal of the grape vines will not be needed.

The reserve dripfield area is 124,300 square feet and consists of sandy clay loam soils with a corresponding hydraulic loading rate of 0.6 gal/ft<sup>2</sup>/day. This provides an approximate 200-percent equivalent replacement area.

### B.7. Land Application and/or Recycled Water Systems

Disinfected tertiary recycled water is applied to 10 acres of the golf course via subsurface irrigation. Based on the Discharger's water balance, the turf's irrigation capacity is 7.6 million gallons per year and up to 6.1 million gallons of disinfected tertiary recycled water would be applied. Supplemental irrigation water will be supplied by the onsite storm water basin.

### DDW Specified Disinfection and/or Water Recycling Criteria Requirements

On 25 November 2015, DDW approved the Discharger's amended Title 22 Engineering Report. DDW provided the following comment:

"Although Title 22 states requirements for 'surface irrigation', the term 'surface irrigation' is not defined. Historically, DDW has considered shallow subsurface disposal projects like the vineyard disposal area described in this project to be a beneficial reuse of recycled water and thus must follow Title 22 regulations. The local RWQCB shall determine if the vineyard portion of the project is solely disposal or a recycled water reuse project. If the vineyard portion of the project is determined to be a recycled water reuse project, then:

- a. Aetna Springs Resort must follow the applicable Title 22 regulations.
- b. Submit the project for review by CDPH's Food and Drug Branch if the crop is other than only ornamental.
- c. Revise the comments to the DDW letter dated Sep 10, 2014. Specifically comments #5, 6, and 9.

The Report is approved and complete provided the Regional Water Quality Control Board (RWQCB) makes a determination that the vineyard portion of the project is solely disposal. If RWQCB determines that the vineyard portion of the project is a recycled water project then it is subject to applicable Title 22 regulations."

Because the subsurface dripfield system design relies on percolation of wastewater and not uptake via crop demand, the Regional Water Board finds that the application of wastewater to the vineyard to be disposal. Therefore, this NOA regulates wastewater application to the vineyard as a subsurface disposal system (as described in Section B.6) and DDW Items a, b, and c above do not apply.

### **C. Groundwater and Surface Water Limitations**

This section applies in its entirety.

### **D. Effluent Limitations**

This section applies in its entirety and shall include the following site specific limitations.

#### Membrane Bioreactor (MBR) Treatment System Effluent Limitations

The following limits apply to the MBR treatment system effluent.

<b>Constituent</b>	<b>Units</b>	<b>Limit</b>
BOD	mg/L	30 (monthly average), 45 (7-day average)
TSS	mg/L	30 (monthly average), 45 (7-day average)
Total Nitrogen	mg/L	None – during Phase 1
	mg/L	12 – during Phase 2

### Effluent Limit Rationale

The employed MBR treatment system is subject to technology performance effluent limits for biochemical oxygen demand (BOD) and total suspended solids (TSS) specified in the General Order.

Staff evaluated the need for a total nitrogen effluent limit using the method contained in the General Order and determined that a nitrogen effluent limit is not necessary during Phase 1 because the monthly average flow will be less than 20,000 gpd. A total nitrogen effluent limit of 12 mg/L was determined necessary during Phase 2 based on the following:

- The monthly average flow will be more than 20,000 gpd.
- Even though site specific investigation and published soil survey data indicate the water percolation rates at the site are greater than 120 minutes per inch and the dripfield disposal areas are engineered, which complies with criteria presented in General Order Table 5, groundwater monitoring data indicate that the depth to groundwater can be less than 2 feet below ground surface.
- Based on the above information, nitrogen was found to be a constituent of concern and nitrogen removal is required.
- The MBR treatment system is expected to produce effluent with a total nitrogen concentration of 12 mg/L or lower. This concentration is better than a 50-percent reduction of typical domestic wastewater concentrations referenced in the RWD and was set as the effluent limit.

### Recycled Water Limitations

The following recycled water limitations apply to the effluent wastewater prior to being transferred to the disinfected tertiary recycled water storage tank.

Constituent	Units	Limit
Turbidity	NTU	0.2 (no more than 5-percent of time within 24-hour period) 0.5 (at any time)
Total Coliform	MPN/100 mL	2.2 (median for last 7 monitoring days) 23 (no more than one sample in 30 day period) 240 (single sample maximum)

## **E. Provisions**

The following technical reports shall be submitted as described below:

1. By **1 April 2016**, the Discharger shall submit a *Spill Prevention and Emergency Response Plan* (Response Plan) consistent with the requirements of General Order Provision E.1.a.
2. By **1 April 2016**, the Discharger shall submit a *Sampling and Analysis Plan* consistent with the requirements of General Order Provision E.1.b.
3. At least **90 days prior** to increasing flows greater than the Phase 1 flow limit, the Discharger shall submit a *Phase 2 Construction and Completion Report*, which certifies that construction of Phase 2 improvements have been completed and the improvements are fully functional and ready to receive wastewater in compliance

with the requirements of this NOA and the General Order.

4. At least **90 days prior** to increasing flows greater than the Phase 1 flow limit, the Discharger shall submit a *Sludge Management Plan* consistent with the requirements of General Order Provision E.1.c.

### **3. MONITORING AND REPORTING PROGRAM**

The Discharger shall comply with the attached MRP 2014-0153-DWQ-R5191, which is attached hereto and made part of this NOA by reference. Effluent samples shall be collected upstream of the point of discharge to the disinfected tertiary recycled water storage tank and subsurface dripfield area as indicated in Attachment C.

### **4. ENFORCEMENT**

Please review this NOA carefully to ensure that it completely and accurately reflects the discharge. Discharge of wastes other than those described in this NOA is prohibited. Prior to allowing changes to the wastewater strength or generation rate, or if the method of waste disposal changes from that described in the RWD, you must contact the Central Valley Regional Water Board to determine if submittal of an RWD is required.

Aetna Resorts, LLC will generate the waste subject to the terms and conditions of WQ 2014-0153-DWQ-R5191 and will maintain exclusive control over the discharge. As such, Aetna Resorts, LLC is primarily responsible for compliance with this NOA, MRP, and General Order WQ 2014-0153-DWQ-R5191, with all attachments. Failure to comply with the requirements in the General Order, this NOA, or approved title 22 Engineering Report could result in an enforcement action as authorized by provisions of the California Water Code.

### **5. ANNUAL FEES**

Staff has determined the discharge is a threat to water quality and complexity rating of 3-B. The current annual fee corresponding to a threat to water quality and complexity of 3-B is currently \$4,699; however, because the permitted flow is less than 50,000 gpd, the discharge qualifies for the 50-percent fee discount. Therefore, the annual fee for this discharge is currently \$2,349. The fee is due and payable on an annual basis until coverage under the General Order is formally rescinded. Please note that the annual fees are reviewed each year and may change. If the wastewater discharge ceases and to avoid additional billing, you must provide written notice so that we may terminate coverage under the General Order.

### **6. DOCUMENT SUBMITTAL**

All monitoring reports and other correspondence should be converted to searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to:  
centralvalleysacramento@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

Facility Name: Aetna Springs Resort, Napa County		
Program: Non-15 Compliance	Order: 2014-0153-DWQ-R5191	CIWQS Place ID: 204603

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to:

Central Valley Regional Water Quality Control Board  
ECM Mailroom  
11020 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670

Now that the Notice of Applicability has been issued, the Board's Compliance and Enforcement section will take over management of your case. Guy Childs is your new point of contact for any questions about the Waiver. If you find it necessary to make a change to your permitted operations, Guy will direct you to the appropriate Permitting staff. You may contact Guy at (916) 464-4648 or at [gchilds@waterboards.ca.gov](mailto:gchilds@waterboards.ca.gov).

  
PAMELA C. CREEDON For  
Executive Officer

enc: Water Quality Order WQ 2014-0153-DWQ  
Monitoring and Reporting Program 2014-0153-DWQ-R5191  
Attachment A, Site Location Map  
Attachment B, Site Plan  
Attachment C, Wastewater Treatment System Schematic

cc w/out enc: Timothy O'Brien, State Water Resources Control Board, Sacramento  
Napa County Environmental Management, Napa  
Gina Giacone, Summit Engineering, Inc., Santa Rosa

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 2014-0153-DWQ-R5191

FOR

AETNA RESORTS, LLC  
AETNA SPRINGS RESORT  
NAPA COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring a wastewater treatment system at the Aetna Springs Resort. 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 Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) or Executive Officer.

Water Code section 13267 states, in part:

“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.”

Water Code section 13268 states, in part:

“(a) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267, or failing or refusing to furnish a statement of compliance as required by subdivision (b) of section 13399.2, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).

(b)(1) Civil liability may be administratively imposed by a regional board in accordance with article 2.5 (commencing with section 13323) of chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.”

Aetna Resorts, LLC owns and operates the wastewater system that is subject to the Notice of Applicability (NOA) of Water Quality Order 2014-0153-DWQ-R5191. The reports are necessary to ensure that the Discharger complies with the NOA and General Order. Pursuant to Water Code section 13267, the Discharger shall implement this MRP and shall submit the monitoring reports described herein.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The name of the sampler, sample type (grab or composite), time, date, location, bottle type, and any preservative used for each sample shall be recorded on the sample chain of custody form. The chain of custody form must also contain all custody information including date, time, and to whom samples were relinquished. If composite samples are collected, the basis for sampling (time or flow weighted) shall be approved by Central Valley Water Board staff.

Field test instruments (such as those used to test pH, dissolved oxygen, and electrical conductivity) may be used provided that they are used by a State Water Resources Control Board, Environmental Laboratory Accreditation Program certified laboratory, or:

1. The user is trained in proper use and maintenance of the instruments;
2. The instruments are field calibrated prior to monitoring events at the frequency recommended by the manufacturer;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are maintained and available for at least three years.

If monitoring consistently shows no significant variation in magnitude of a constituent concentration or parameter after at least 12 months of monitoring, the Discharger may request this MRP be revised to reduce monitoring frequency. The proposal must include adequate technical justification for reduction in monitoring frequency.

### SEPTIC TANK MONITORING

Septic tanks shall be inspected and/or pumped at least as frequently as described below. Inspections of sludge and scum depth are not required if the tanks are pumped at least annually.

Parameter	Units	Measurement Type	Inspection/Reporting Frequency
Sludge depth and scum thickness in each compartment of tank	Feet	Staff Gauge	Annually
Distance between bottom of scum layer and bottom of outlet device	Inches	Staff Gauge	Annually
Distance between top of sludge layer and bottom of outlet device	Inches	Staff Gauge	Annually

As specified in General Order WQ 2014-0153-DWQ, septic tanks shall be pumped when any one of the following conditions exists:

1. The combined thickness of sludge and scum exceeds one-third of the tank depth of the first compartment.
2. The scum layer is within 3 inches of the outlet device.
3. The sludge layer is within 8 inches of the outlet device.

If a septic tank is pumped during the year, the pumping report shall be submitted with the annual report. At a minimum, the record shall include the date, nature of service, service company name, and service company license number.

### MEMBRANE BIOREACTOR TREATMENT UNIT MONITORING

Samples of effluent shall be taken at an area that represents the effluent quality distributed to the disposal area. At a minimum, effluent monitoring shall consist of the following:

Constituent	Units <sup>1</sup>	Sample Type	Sampling Frequency	Reporting Frequency
Flow Rate	gpd	Metered <sup>2</sup>	Continuous	Quarterly
Biochemical Oxygen Demand	mg/L	Grab	Monthly	Quarterly
Total Suspended Solids	mg/L	Grab	Monthly	Quarterly
Total Nitrogen	mg/L	Grab	Monthly	Quarterly

1. gpd = gallons per day and mg/L = milligram per liter.
2. Flow rate may be metered or estimated based on potable water supply meter readings or other approved method. Flow rates may be measured as influent or effluent flow.

### DISINFECTION SYSTEM MONITORING

Samples shall be collected immediately downstream of the disinfection system and prior to transferring the effluent in the disinfected tertiary recycled water storage tank. Disinfection monitoring shall include the following:

Constituent	Units <sup>1</sup>	Sample Type	Sample Frequency	Reporting Frequency
Total Coliform Organisms	MPN/100 mL	Grab	Daily <sup>2</sup>	Quarterly
Turbidity	NTU	Meter	Continuous	Quarterly

1. MPN/100 mL = most probable number per 100 mL sample. NTU = nephelometric turbidity unit.
2. Daily monitoring shall occur on days that recycled water is being generated.

### SUBSURFACE DRIPFIELD DISPOSAL AREA

Monitoring shall be sufficient to determine if wastewater is evenly applied, the dripfield area is not saturated, burrowing animals are not present, plant roots have not compromised the disposal area, and odors are not present. Inspection of dosing pump controllers, automatic distribution valves, etc. is required to maintain optimum treatment in the dripfield area. Monitoring shall include, at a minimum, the following:

Constituent	Inspection Frequency	Reporting Frequency
Pump Controllers, Automatic Valves, etc. <sup>1</sup>	Quarterly	Quarterly
Nuisance Odor Condition	Quarterly	Quarterly
Saturated Soil Conditions <sup>2</sup>	Quarterly	Quarterly
Plant Growth <sup>3</sup>	Quarterly	Quarterly
Vectors or Animal Burrowing <sup>4</sup>	Quarterly	Quarterly

1. All pump controllers and automatic distribution valves shall be inspected for proper operation as recommended by the manufacturer.
2. Inspect a disposal area for saturated conditions.
3. Shallow-rooted plants are generally desirable, deep-rooted plants such as trees shall be removed as necessary.
4. Evidence of animals burrowing shall be immediately investigated and burrowing animal populations controlled as necessary.

### RECYCLED WATER MONITORING

Samples shall be collected from the disinfected tertiary recycled water storage tank and be consistent with the following:

Constituent	Sample Type	Sampling Frequency	Reporting Frequency
California Toxic Rule Priority Pollutants <sup>1</sup>	Grab	5 years	The annual report following the sample event.

<sup>1</sup>. See Appendix A of 40 Code of Federal Regulations (40 CFR), Part 423, which is included as part of this MRP for reference.

### SOLIDS DISPOSAL MONITORING

The Discharger shall report the handling and disposal of all solids (e.g., screenings, grit, sludge, biosolids, etc.) generated at the wastewater system. Records shall include the name/contact information for the hauling company, the type and amount of waste transported, the date removed from the wastewater system, the disposal facility name and address, and copies of analytical data required by the entity accepting the waste. These records shall be submitted as part of the annual monitoring report.

### GROUNDWATER MONITORING

Groundwater monitoring wells GM-1 through GM-9 shall be monitored according to the schedule below. Monitoring data and groundwater flow direction analysis shall be performed semiannually (twice per year) and shall be performed under the supervision of a California licensed civil engineer or geologist. After wastewater disposal has begun and six semiannual groundwater monitoring events have occurred, the Discharger may request a reduced monitoring and reporting schedule if groundwater monitoring data indicate that the discharge is not impacting groundwater quality.

Constituent	Units <sup>1</sup>	Sample Type	Sampling Frequency	Reporting Frequency
Groundwater Elevation <sup>1</sup>	0.01 Feet	Calculated	Semiannually	Annually
Depth to Groundwater <sup>2</sup>	0.01 Feet	Calculated	Semiannually	Annually
Gradient	Feet/Feet	Calculated	Semiannually	Annually
Gradient Direction	Degrees	Calculated	Semiannually	Annually

Constituent	Units <sup>1</sup>	Sample Type	Sampling Frequency	Reporting Frequency
pH	Std. Units	Grab	Semiannually	Annually
Total Dissolved Solids	mg/L	Grab	Semiannually	Annually
Nitrate as Nitrogen	mg/L	Grab	Semiannually	Annually
Total Coliform Organisms	MPN/100 mL	Grab	Semiannually	Annually

1. Groundwater elevation shall be based on depth to water using a surveyed measuring point elevation on the well and a surveyed reference elevation.
2. Depth to groundwater shall be reported as feet below ground surface.

## REPORTING

All monitoring reports should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50MB should be emailed to: [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov).

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email:

Attention: Compliance/Enforcement Section  
 Aetna Resorts, LLC.  
 Aetna Springs Resort  
 Napa County  
 Place ID: 204603

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the following address:

Central Valley Regional Water Quality Control Board  
 ECM Mailroom  
 11020 Sun Center Drive, Suite 200  
 Rancho Cordova, California 95670

Please include a transmittal sheet that includes the following:

Attention: Compliance/Enforcement Section  
 Aetna Resorts, LLC.  
 Aetna Springs Resort  
 Napa County  
 Place ID: 204603

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, solids, etc.), and reported analytical or visual inspection results are readily discernible. The data shall be summarized to clearly illustrate compliance with the General Order and NOA as applicable. The results of any monitoring done more frequently than required at the locations specified in the MRP shall be reported in the next regularly scheduled monitoring report and shall be included in calculations as appropriate.

Monitoring information shall include the method detection limit (MDL) and the Reporting limit (RL) or practical quantitation limit (PQL). If the regulatory limit for a given constituent is less than the RL (or PQL), then any analytical results for that constituent that are below the RL (or PQL) but above the MDL shall be reported and flagged as estimated. For a Discharger conducting any of its own analyses, reports must be signed and certified by the chief of the laboratory.

#### **A. Quarterly Monitoring Reports**

Quarterly reports shall be submitted to the Regional Water Board on the **first day of the second month after the quarter ends** (e.g. the January-March Quarterly Report is due by May 1<sup>st</sup>). The reports shall bear the certification and signature of the Discharger's authorized representative. At a minimum, the quarterly reports shall include:

1. Results of all required quarterly monitoring. Data shall be organized by the associated monitoring sections (e.g., Membrane Bioreactor Treatment System Monitoring) and presented in tabular format.
2. A comparison of monitoring data to the discharge specifications; biochemical oxygen demand, total suspended solids, and total nitrogen effluent limits; disclosure of any violations of the NOA and/or General Order; and an explanation of any violation of those requirements.
3. A statement indicating whether the treatment system is operating under Phase 1 or Phase 2. If the treatment is operating under Phase 2, provide the date that the *Phase 2 Construction and Implementation Report* was submitted.
4. If requested by staff, copies of laboratory analytical report(s) and chain of custody form(s).

#### **B. Annual Report**

Annual Reports shall be submitted to the Regional Water Board by **February 1<sup>st</sup> following the monitoring year**. The Annual Report shall include the following:

1. Tabular and graphical summaries of all monitoring data collected during the year.
2. An evaluation of the performance of the wastewater treatment system, including discussion of capacity issues, nuisance conditions, system problems, and a forecast of the flows anticipated in the next year. A flow rate evaluation, as described in the General Order (Provision E.2.c), shall also be submitted.
3. A description of disinfection system maintenance activities performed in the calendar year (e.g., manufacturer recommended maintenance activities).
4. A discussion of compliance and the corrective action taken, as well as any planned or proposed actions needed to bring the discharge into compliance with the NOA and/or General Order.
5. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

6. The name and contact information for the wastewater operator responsible for operation, maintenance, and system monitoring.
7. A groundwater monitoring report prepared by a California licensed professional. This report may be prepared separately from the rest of the Annual Report. The report shall contain an analysis of groundwater data collected during the year. The analysis shall include a description of the sample events, copies of the field logs, purge method and volume, groundwater elevation and trend, a groundwater elevation map for each sample event, summary tables showing results for parameters measured, comparison of groundwater quality parameters to standards in the NOA, chain-of-custody forms, calibration logs for field equipment used, and a general evaluation of any impacts the wastewater discharge is having on groundwater quality.

A letter transmitting the monitoring reports shall accompany each report. The letter shall report violations found during the reporting period, and actions taken or planned to correct the violations and prevent future violations. The transmittal letter shall contain the following penalty of perjury statement and shall be signed by the Discharger or the Discharger's authorized agent:

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

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

Ordered by:

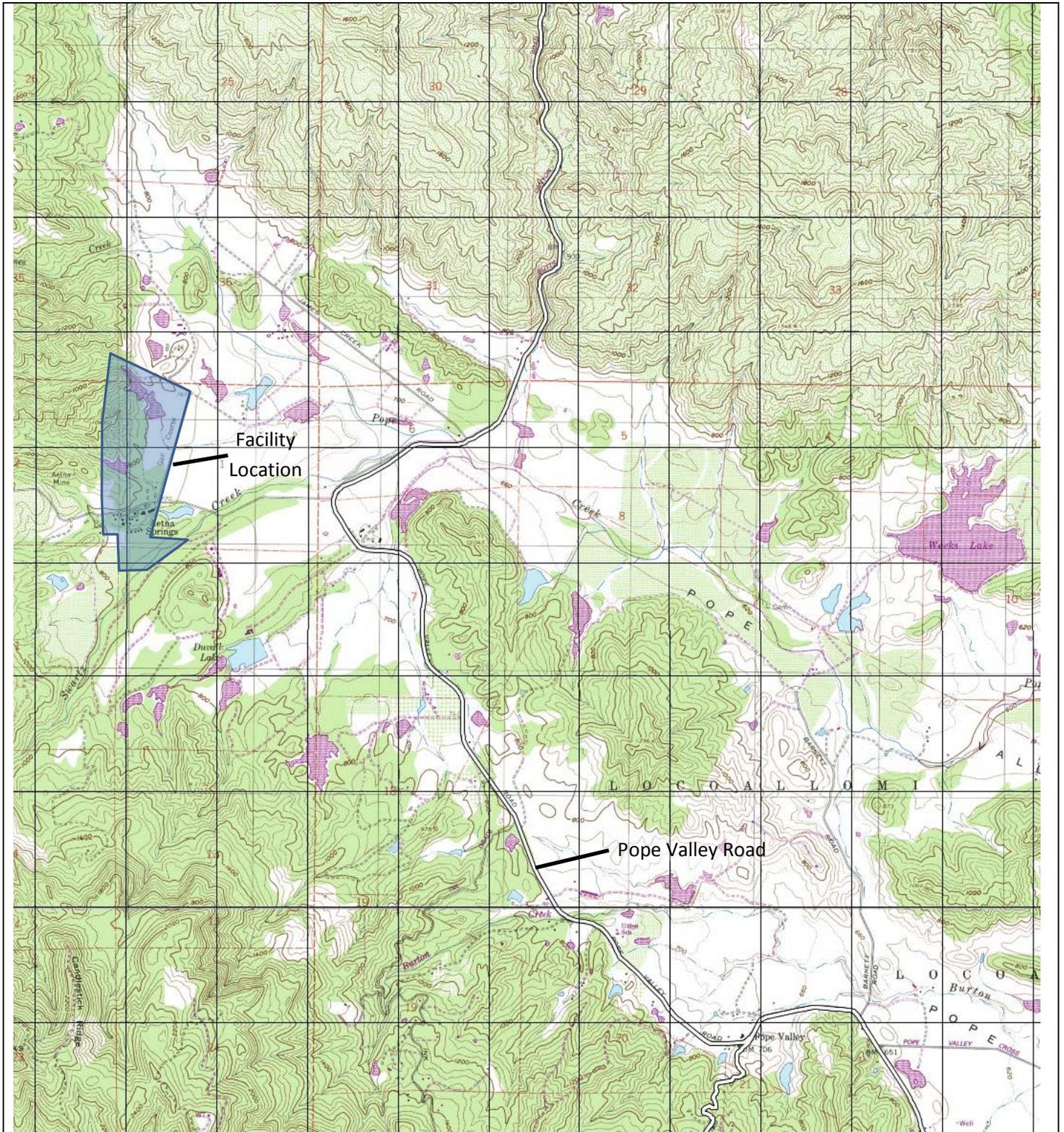
Andrew Altevoght For  
PAMELA C. CREEDON, Executive Officer

1/22/16

DATE

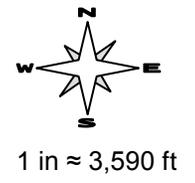
### Appendix A to 40 CFR, Part 423--126 Priority Pollutants

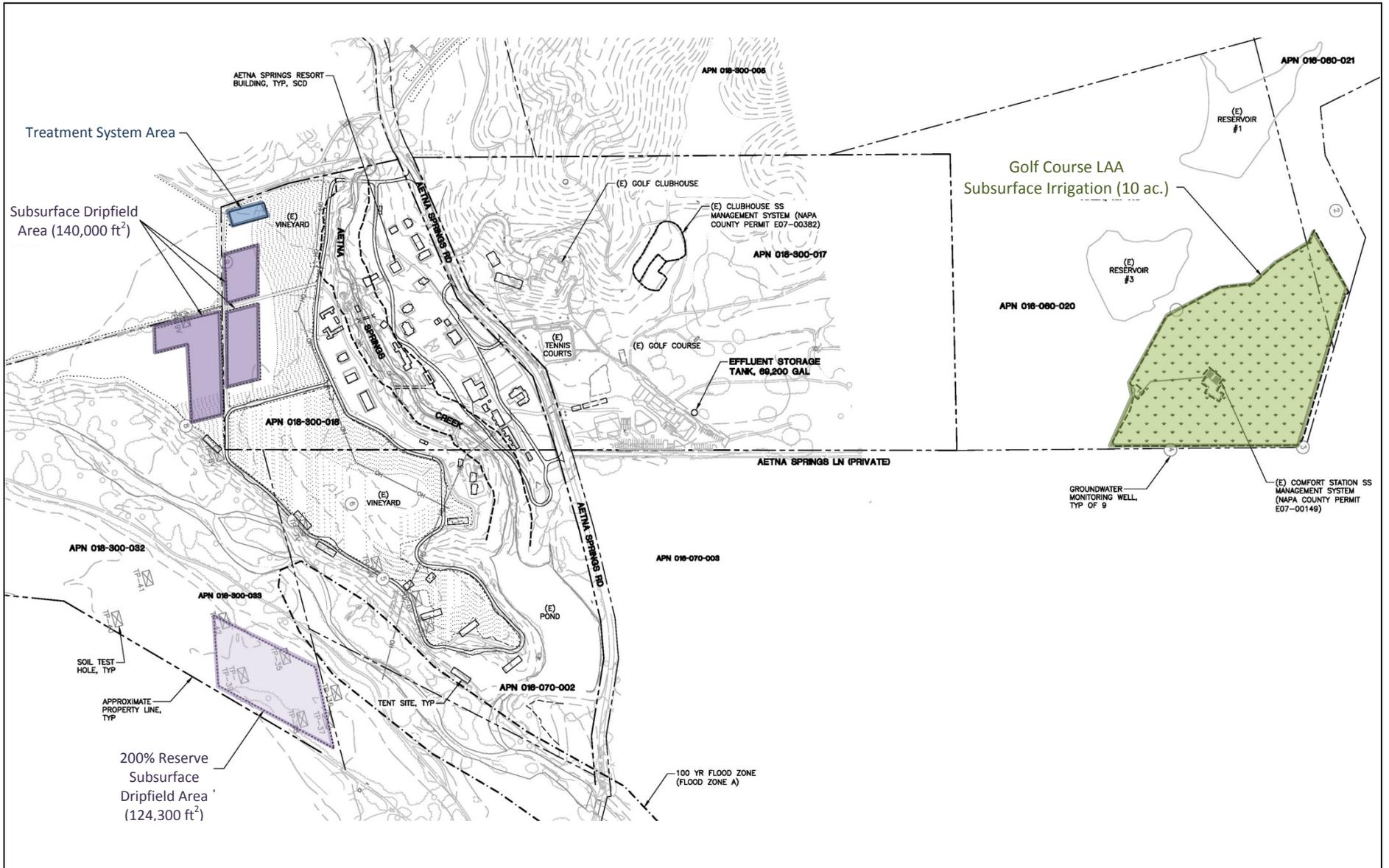
001 Acenaphthene	047 Bromoform (tribromomethane)	090 Dieldrin
002 Acrolein	048 Dichlorobromomethane	091 Chlordane (technical mixture and metabolites)
003 Acrylonitrile	051 Chlorodibromomethane	092 4,4-DDT
004 Benzene	052 Hexachlorobutadiene	093 4,4-DDE (p,p-DDX)
005 Benzidine	053 Hexachloromyclopentadiene	094 4,4-DDD (p,p-TDE)
006 Carbon tetrachloride (tetrachloromethane)	054 Isophorone	095 Alpha-endosulfan
007 Chlorobenzene	055 Naphthalene	096 Beta-endosulfan
008 1,2,4-trichlorobenzene	056 Nitrobenzene	097 Endosulfan sulfate
009 Hexachlorobenzene	057 2-nitrophenol	098 Endrin
010 1,2-dichloroethane	058 4-nitrophenol	099 Endrin aldehyde
011 1,1,1-trichloroethane	059 2,4-dinitrophenol	100 Heptachlor
012 Hexachloroethane	060 4,6-dinitro-o-cresol	101 Heptachlor epoxide (BHC-hexachlorocyclohexane)
013 1,1-dichloroethane	061 N-nitrosodimethylamine	102 Alpha-BHC
014 1,1,2-trichloroethane	062 N-nitrosodiphenylamine	103 Beta-BHC
015 1,1,2,2-tetrachloroethane	063 N-nitrosodi-n-propylamin	104 Gamma-BHC (lindane)
016 Chloroethane	064 Pentachlorophenol	105 Delta-BHC (PCB-polychlorinated biphenyls)
018 Bis(2-chloroethyl) ether	065 Phenol	106 PCB-1242 (Arochlor 1242)
019 2-chloroethyl vinyl ether (mixed)	066 Bis(2-ethylhexyl) phthalate	107 PCB-1254 (Arochlor 1254)
020 2-chloronaphthalene	067 Butyl benzyl phthalate	108 PCB-1221 (Arochlor 1221)
021 2,4, 6-trichlorophenol	068 Di-N-Butyl Phthalate	109 PCB-1232 (Arochlor 1232)
022 Parachlorometa cresol	069 Di-n-octyl phthalate	110 PCB-1248 (Arochlor 1248)
023 Chloroform (trichloromethane)	070 Diethyl Phthalate	111 PCB-1260 (Arochlor 1260)
024 2-chlorophenol	071 Dimethyl phthalate	112 PCB-1016 (Arochlor 1016)
025 1,2-dichlorobenzene	072 1,2-benzanthracene (benzo(a)anthracene)	113 Toxaphene
026 1,3-dichlorobenzene	073 Benzo(a)pyrene (3,4-benzo-pyrene)	114 Antimony
027 1,4-dichlorobenzene	074 3,4-Benzofluoranthene (benzo(b)fluoranthene)	115 Arsenic
028 3,3-dichlorobenzidine	075 1,1,12-benzofluoranthene (benzo(b)fluoranthene)	116 Asbestos
029 1,1-dichloroethylene	076 Chrysene	117 Beryllium
030 1,2-trans-dichloroethylene	077 Acenaphthylene	118 Cadmium
031 2,4-dichlorophenol	078 Anthracene	119 Chromium
032 1,2-dichloropropane	079 1,12-benzoperylene (benzo(ghi)perylene)	120 Copper
033 1,2-dichloropropylene (1,3-dichloropropene)	080 Fluorene	121 Cyanide, Total
034 2,4-dimethylphenol	081 Phenanthrene	122 Lead
035 2,4-dinitrotoluene	082 1,2,5,6-dibenzanthracene (dibenzo(h)anthracene)	123 Mercury
036 2,6-dinitrotoluene	083 Indeno (1,2,3-cd) pyrene (2,3-o-pheynylene pyrene)	124 Nickel
037 1,2-diphenylhydrazine	084 Pyrene	125 Selenium
038 Ethylbenzene	085 Tetrachloroethylene	126 Silver
039 Fluoranthene	086 Toluene	127 Thallium
040 4-chlorophenyl phenyl ether	087 Trichloroethylene	126 Silver
041 4-bromophenyl phenyl ether	088 Vinyl chloride (chloroethylene)	128 Zinc
042 Bis(2-chloroisopropyl) ether	089 Aldrin	129 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)
043 Bis(2-chloroethoxy) methane		
044 Methylene chloride (dichloromethane)		
045 Methyl chloride (dichloromethane)		
046 Methyl bromide (bromomethane)		



Source  
U.S.G.S. Topographic Map 7.5  
Minute Quadrangle

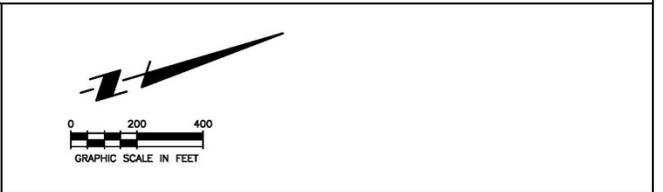
**SITE LOCATION MAP**  
Aetna Springs Resort  
Napa County

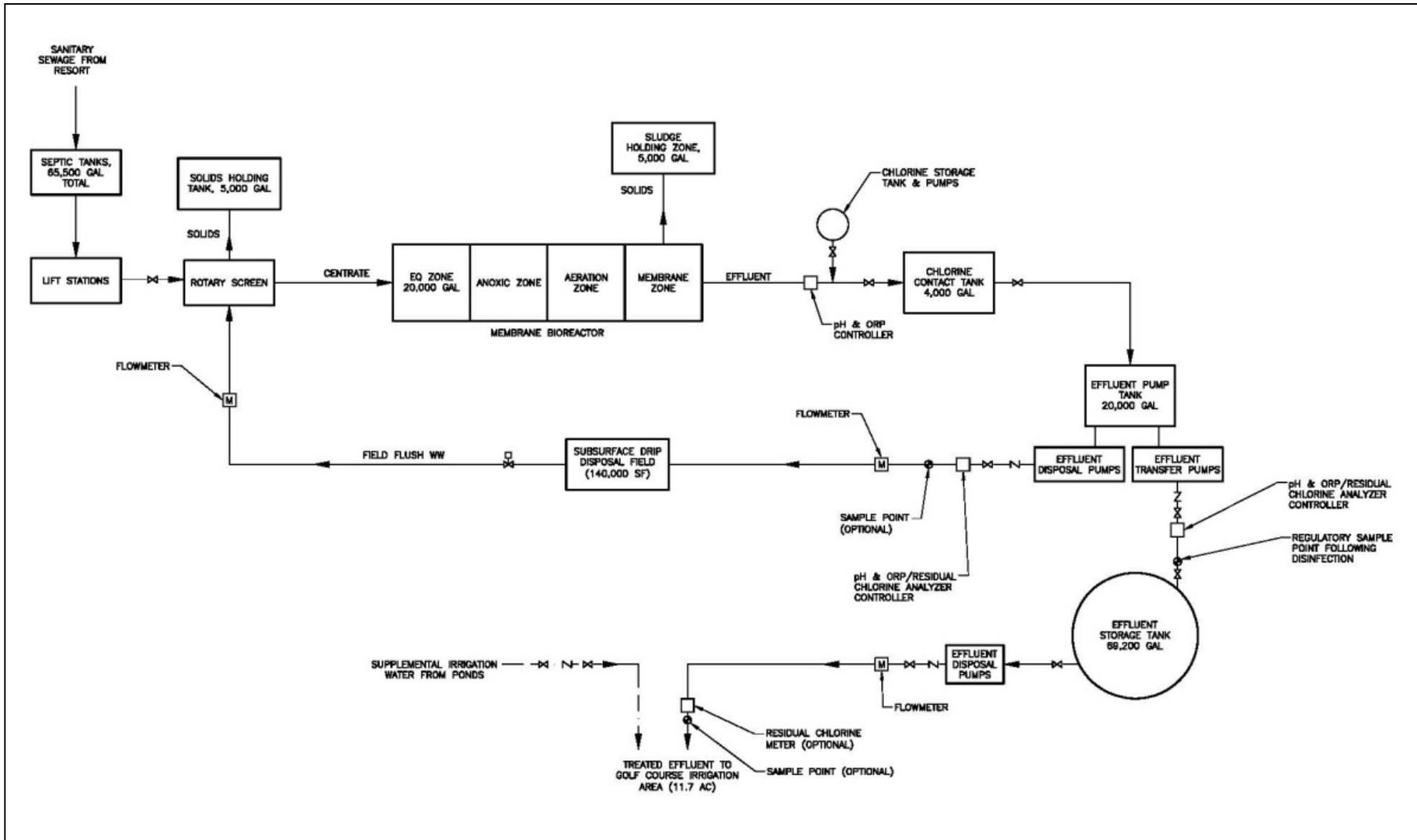




Source  
 RWD Addendum  
 Summit Engineering, Inc.  
 June 2015

**SITE PLAN**  
 Aetna Springs Resort  
 Napa County





Source:  
 RWD Addendum  
 Summit Engineering, Inc.  
 June 2015

**WASTEWATER TREATMENT SYSTEM SCHEMATIC**  
 Aetna Springs Resort  
 Napa County