CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6T-2004-0024

NPDES PERMIT NO. CA0103021-WDID NO. 6A090089000

FOR

UPDATED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR TAHOE KEYS PROPERTY OWNERS ASSOCIATION LAGOON AND MARINA WATER CIRCULATION SYSTEM

El Dorado County

FINDINGS of the California Regional Water Quality Control Board, Lahontan Region (Regional Board):

1. Discharger

The Tahoe Keys Property Owners Association (TKPOA) submitted a complete Report of Waste Discharge and National Pollutant Discharge Elimination System (NPDES) application on November 13, 2003 for the Tahoe Keys Lagoon and Marina Water Circulation System. For the purposes of this Order, the TKPOA is referred to as the "Discharger" and the water circulation system and the discharge pipelines are referred to as the "Facility".

2. Permit History

The first permit established for the Facility was Board Order No. 6-75-48 (NPDES Permit No. CA0102750) adopted on March 27, 1975. The permit has been updated three times: Board Order No. 6-87-77 (NPDES Permit No. CA0102750) adopted on July 10, 1987; Board Order No. 6-92-82 (NPDES Permit No. CA0103021) adopted on September 10, 1992; and, Board Order No. 6-98-35 (NPDES Permit No. CA0103021) adopted on June 4, 1998. Cleanup and Abatement Order No. 6-99-08 was issued on April 27, 1999 that required TKPOA to abate future violations of effluent limitations for aluminum. All previous permits have addressed the circulation system as well as its treatment plant. This updated permit addresses the circulation system only.

3. Reason for Action

Board Order No. 6-98-35 (NPDES Permit No. CA0103021) expired on June 4, 2003, but the Discharger has not circulated water since summer 2001 and has not operated the treatment plant since 1998. The Discharger has submitted a report of waste discharge

and a NPDES permit application to the Regional Board to obtain authorization to operate the Facility and discharge circulated, untreated water to surface waters tributary to Lake Tahoe within the Tahoe Keys lagoons and marina areas.

The Discharger has asked that operation of the treatment plant not be included in the updated permit. The Discharger stated that a separate application will be submitted for a separate permit for the treatment plant once the Discharger has determined what type of treatment chemicals will be used in future operation of the treatment facility.

The origins of the treatment plant, which is no longer part of this permit, are related to an agreement between the City and the Tahoe Keys developer (Dillingham Land Corporation) to have in place a water treatment system designed to protect water quality in the lagoons and man-made waterways for recreation, fish and wildlife sustenance, and aesthetic enjoyment. The treatment plant was operated at the discretion of the Discharger when it was determined that the conditions in the lagoon and/or marina were such that treatment was desirable to improve water quality and aesthetic conditions, to aid in removing turbidity (e.g., from dredging and aquatic plant removal operations), or to protect public health by pathogen removal. In August 1998 the Discharger released 858 million gallons of water containing aluminum at concentrations roughly three to four times greater than concentrations chronically toxic to aquatic life (87 µg/l, 4-day average). The discharge occurred continuously at 33 million gallons per day (mgd) during the 26-day period from August 6, 1998 to August 31, 1998, and resulted in violations of chronic toxicity water quality objectives in the receiving waters. The Regional Board issued a Cleanup and Abatement Order in April 1999 and a Settlement Agreement with the Discharger was signed in September 1999 requiring the Discharger to develop and implement mitigation projects in lieu of monetary penalties.

4. Facility Location and Purpose

The Facility is located in the N½ of Section 5, T12N, R18E, MDB&M. The Facility address is 2100 Texas Avenue in the City of South Lake Tahoe (City), El Dorado County. This location is in the immediate vicinity of the Tahoe Keys, a 750-acre residential and commercial subdivision development in the City with three principal man-made water features: the Tahoe Keys Lagoon (Lagoon, 110 acres of water surface), the Tallac Lagoon (45 acres of water surface), and the Tahoe Keys Marina (Marina, 32 acres of water surface). These areas, formerly a part of the Upper Truckee River Marsh, are now surrounded by residential development. The Facility location is shown in Attachment A.

The purpose of the Facility is to circulate untreated lagoon and marina water intermittently from the beginning of May to October to increase dissolved oxygen concentrations and prevent water stagnation and growth of algae and aquatic weeds.

5. Facility Description and Capacity

Features of the Facility, the schematic layout, and relevant surface waters are shown on Attachment B. The Facility is designed to enhance circulation of untreated waters both within and between the lagoon and marina. As such, all Facility circulation pipelines are located within the lagoon and marina areas. These surface waters are hydrologically continuous with the waters of Lake Tahoe.

The Facility circulation system includes the West Side Pump Station and the East Side Pump Station, which operate the circulation system that discharges circulated water through points 1 through 13. A circulation pump at the treatment plant operates at point 14E but only under an emergency, power-out situation to regulate water flow and discharges to Tallac Lagoon; normal circulation does not involve Tallac Lagoon. The West Side Pump Station is connected to a 36-inch diameter pipeline with a 33 mgd intake capacity. In addition, the East Side Pump Station in the southwest portion of the Marina has a 7.5 mgd intake, and discharges water from the marina to the lagoon via an 18-inch diameter pipeline connected to the 36-inch diameter pipeline. Either one or both of these two pump stations may be operated at any given time to circulate up to 40.5 mgd. Prior to circulation, a bypass valve is closed to ensure that circulating water bypasses and does not flow into the treatment plant.

The Facility also includes five circulation pumps and the circulation discharge pipelines that circulate water between coves and discharge through points C1 through C6. The five circulation pumps can move a combined flow of up to 19.4 mgd through culverts that discharge to nearby portions of the lagoon. If all the Facility pumps are simultaneously operated (at a rate of approximately 60 mgd), the entire combined volume of the lagoon and marina may be recirculated every eight days, *on average* (neglecting volume changes due to fluctuations in the level of Lake Tahoe).

6. Facility Discharge

The Discharger proposes to intermittently circulate a maximum of 60 mgd of untreated surface water throughout the lagoon and/or marina. The lagoon and marina are hydrologically connected to Lake Tahoe via the West and East Channels, respectively. The circulation system enables water to be transferred from the lagoon to the marina, and from the marina to the lagoon. Discharge occurs on a seasonal basis during summer when warmer water conditions prevail. The Discharger owns the lagoons and Ray Carreau and Richard Horton, together, own the marina, Tahoe Keys Marina (TKM). The TKM property is adjacent to and directly east of the lagoons.

7. Waste Characteristics

Effluent from the Facility consists of circulated water from the lagoons and marina. No chemicals are added to the discharge. The Discharger collected water quality samples from the two intake points (E & W) and two outlets (3 & 13) during six sampling events between May 13, 2003 and November 18, 2003 as part of completing the NPDES renewal application. The following table summarizes the water quality results:

Constituent	Results (range or maximum value)
pH	7.08 – 9.39 pH units
Ammonia as Nitrogen	0.065 mg/l (maximum daily value – concentration)
Total Kjeldahl Nitrogen	1.0 mg/l (maximum daily value – concentration)
Sulfate	0.53 mg/l (maximum daily value – concentration)
Turbidity	0.51- 5.3 NTU
Total Dissolved Solids	150 mg/l (maximum daily value – concentration)
Total Suspended Solids	6.0 mg/l (maximum daily value – concentration)
Total Phosphorus	0.09 mg/l (maximum daily value – concentration)
Nitrate plus Nitrite Nitrogen	< 0.01 mg/l (maximum daily value – concentration)

8. Basin Plan

The Regional Board adopted a *Water Quality Control Plan for the Lahontan Region* (Basin Plan) on March 31, 1995, and adopted Basin Plan Amendments on July 12, 2000. The Basin Plan recognizes Lake Tahoe as Outstanding National Resource Water (ONRW). This Order implements the Basin Plan, as amended.

9. Beneficial Uses - Surface Waters

The receiving waters for Facility flows are the surface and ground waters of the Lake Tahoe Hydrologic Unit, South Tahoe Hydrologic Area (Ca. Dept. of Water Resources HU No. 634.10). The lagoon and marina are hydrologically connected to Lake Tahoe and associated minor surface waters of the United States via surface channels and ground water flow. Lake Tahoe is a designated as ONRW, for which no permanent or long-term degradation in water quality is allowable. The beneficial uses of Lake Tahoe and its

associated minor surface waters and wetlands, as set forth and defined in the Basin Plan, include:

a. municipal and domestic supply;

b. agricultural supply;

c. ground water recharge;

d. freshwater replenishment;

e. water-contact recreation;

f. non-water-contact recreation;

g. navigation;

h. commercial and sport fishing;

i. cold freshwater habitat;

j. wildlife habitat;

k. preservation of biological habitats of special significance;

l. migration of aquatic organisms;

m. spawning, reproduction and development of fish and wildlife;

n. preservation of rare and endangered species;

o. water quality enhancement; and

p. flood peak attenuation/flood water storage.

10. Clean Water Act Standards

Effluent limitations and toxic effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Clean Water Act (CWA), as amended, are applicable to the discharge from the Facility.

11. NPDES Permit Authority

Pursuant to Section 402 of the CWA and Section 13370 of the California Water Code, the U.S. Environmental Protection Agency (USEPA) approved the California State program to issue and enforce National Pollutant Discharge Elimination System (NPDES) permits for pollutant discharges to surface waters of the State.

12. NPDES Effluent Limits

The CWA requires that industrial (non-municipal) discharges that contain nonconventional and/or toxic pollutants regulated under the NPDES permit program comply with effluent limits after application of the best available technology economically achievable (BAT). Both technology-based and water quality-based

effluent limits must be considered, and more stringent water quality-based effluent limits must be developed if the technology-based effluent limits are not sufficient to meet water quality objectives. The implementation of the Best Management Practices Plan (BMP Plan) will serve as the equivalent of technology-based effluent limitations to carry out the purposes and intent of the CWA.

13. NPDES Permit

This permit shall serve as an NPDES permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect upon adoption by the Regional Board, provided the USEPA Regional Administrator has no objections.

14. Water Quality Objectives

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Lahontan Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 Code of Federal Regulations § 131.12) and SWRCB Resolution No. 68-16.

15. California Toxics Rule

The USEPA promulgated the California Toxics Rule (CTR) on August 5, 1997 (62 Federal Register 42160-42208) and the CTR was codified at 40 Code of Federal Regulations section 131.38. The CTR established statewide water quality criteria for priority toxic pollutants for California.

The SWRCB adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000. The SIP establishes: (1) implementation provisions for priority pollutant criteria promulgated by the USEPA through the National Toxics Rule (NTR) and through the California Toxics Rule (CTR), and for any priority pollutant objectives established in the Basin Plan; (2) monitoring requirements for 2,3,7,8-TCCD equivalents; and (3) chronic toxicity control provisions. All provisions of the SIP became effective as of May 22, 2000 and apply to discharges of toxic pollutants into the inland surface waters of California subject to regulation under the Porter-Cologne Water Quality Control Act (Division 7 of the CWC) and the CWA.

The Discharger is currently collecting water quality data to satisfy CTR monitoring requirements. The data will be evaluated to determine if any water quality-based effluent limitation is required in the discharge permit pursuant to the CTR. If necessary, the Regional Board may reopen the permit to require water quality-based effluent limitations.

16. CEQA Compliance

This Order involves operation of an existing facility and, as such, is exempt from the provisions of the California Environmental Quality Act (CEQA, Public Resources Code 21000, et seq.) in accordance with Title 14, California Code of Regulations, Chapter 3, Section 15301.

17. Antidegradation Requirements

In 1980, pursuant to federal antidegradation regulations (40 Code of Federal Regulations § 131.12), the State Water Resources Control Board designated Lake Tahoe as an Outstanding National Resource Water (ONRW). The Regional Board has considered state and federal antidegradation requirements pursuant to 40 CFR 131.12 and State Water Resources Control Board Resolution No. 68-16. In accordance with these requirements, this NPDES permit does not allow permanent or long-term degradation of surface waters.

18. Constituents of Concern and Monitoring Parameters

Constituents of concern include total dissolved solids (TDS), total suspended solids (TSS), turbidity, ammonia, chloride, total nitrogen, total phosphorus, total and fecal coliform, oil and grease, pH, and temperature. These parameters are constituents of concern because they are known to be present in the Tahoe Keys neighborhood in the vicinity of the lagoons and marina, and can contribute to surface water pollution via storm water runoff, irrigation practices, and lawn and home care practices. Sources of these pollutants include eroded and exposed soils, road salts, vehicle use, washing and maintenance, fertilizer use, and pet waste. Therefore, monitoring requirements are established for these parameters in this Order.

Constituents of concern also include gasoline products that enter the surface waters from fuelling operations in the marina, and general motorboat use and maintenance. Polynuclear aromatic hydrocarbons (PAHs) and benzene, ethylbenzene, toluene, and xylene (BETX) are common constituents of concern in waters impacted by boating activities. PAHs consist of: acenaphtene , acenaphthylene, anthracend, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, flouoranthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, pyrene. Fecal coliforms are also constituents of concern since they are often associated with boat use and marina activities that can lead to the discharge of wastes and wastewaters into the surrounding surface waters. Activities at the marina may affect the water quality of the lagoons since water is circulated between them, so monitoring requirements are established for PAHs and BETX in this Order. Marina and boating activities that may impact water quality include, but are not limited to, the following:

- Overboard discharge of raw or poorly treated sewage waste, which contributes organic matter that can spread disease and lower oxygen levels. Studies have shown a direct relationship between the number of boats in a sampled area and increased fecal coliform bacteria levels in the water column.

- Spills from fueling facilities, which usually occur during fueling operations and involve diesel or gasoline spilled in small quantities as a result of overfilling tanks. Fueling facilities can also be a source of larger fuel spills when fuel transfer pipes or hoses leak or burst on or near the water.

- Normal activities occurring at a marina, such as vehicular traffic, equipment operation, boat maintenance, and simply human presence, are sources of pollution such as petroleum products, soil particles, fertilizers, and trash.

Although there is no treatment allowed under this Order, aluminum (acid-soluble) is still of concern due to past use in treatment plant operations and the significant effluent limit violations that occurred. Due to significant exceedances of and/or the possible presence of aluminum in sediments, the Discharger will continue to be required to monitor for aluminum. Past operation of the treatment plant has caused and/or contributed to exceedances of permitted effluent limitations for aluminum (Al). A review of treatment plant influent and effluent monitoring data collected by the Discharger between 1975 and 1991 indicates that the discharge from the treatment plant may contain Al at levels that exceed recommendations specified in *Ambient Aquatic Life Water Quality Criteria for Aluminum* (USEPA Publication No. 440/5-86-008, August 1988). Effects of Al on aquatic life include acute and chronic toxicity to aquatic animals, toxicity to aquatic plants, and bioaccumulation in aquatic animals (e.g., fish). The applicable USEPA Criteria to maintain the chemical, physical and biological integrity of the Nation's waters and protect aquatic organisms from toxic effects of Al:

> "Except where a locally important species is very sensitive, freshwater aquatic organisms and their uses should not be affected unacceptably, when the pH is between 6.5 and 9.0, if the four-day average concentration [of acid-soluble Al] does not exceed 87 ug/L more than once every three years on the average and if the one-hour average concentration [of acid-soluble Al] does not exceed 750 ug/L more than once every three years on the average."

The reviewed data indicates that Al in the water plant *influent* at times exceeded the 87 μg/L level, and, during a period of lagoon dredging in 1991, the 750 μ/L level was frequently exceeded. In this instance, the plant was operated to treat waters that contained aluminum-contaminated sediments (aluminum sulfate was reportedly discharged in bulk quantities to settle turbid waters during development of the Tahoe Keys subdivision). Between June 26, 1991, and September 12, 1991, the influent to the plant contained levels of Al as high as 6200 μg/L and 6900 μg/L. The treatment plant

was unable to reduce the Al in the discharge to required levels: Board Order Nos. 6-87-77 and 6-92-82 both specified effluent limitations of 50 μg/L [30-day average] and 100 μg/L [maximum]. Al in the *effluent* during this 78-day period averaged 343 μg/L with a maximum of 640 μg/L. The specific effects of the aluminum discharges on the ambient receiving water quality are not known. While the high levels of Al from dredging were greatly reduced in the plant effluent, operations of this type are a concern due to the toxic nature of Al, the special protections afforded Lake Tahoe as an ONRW, the bypass features of the Facility, the circulation features of the Facility (which may effectively eliminate the ability of aquatic organisms to escape from toxic discharges), and the apparent inability to remove Al to acceptable levels by current treatment practices. Water treatment with aluminum sulfate, in general, can exacerbate exceedance of the limitations by adding Al to the discharge. This Order will revise effluent limitations for Al to reflect the USEPA Criteria, and will prohibit exceedance of the USEPA Criteria in the receiving water as a result of Al increases from treatment and/or water circulation. This Order will also establish requirements to monitor Al in the discharge from the Facility, and in the receiving waters near the Facility discharge locations.

19. Non-point Source Water Management Plan

The objective of this Order is to protect the beneficial uses of receiving waters. To meet this objective, this Order requires the Discharger to develop a BMP Plan to control and prevent impacts to the receiving waters from sources of pollution within the Tahoe Keys residential areas and the marina. The Discharger is required to submit the BMP Plan to the Regional Board for review and approval within one year of the date this Order is approved. This approach provides the flexibility necessary to establish appropriate BMPs for the different types of operations, activities, and pollutant sources that impact the surface waters at the Facility. The BMP Plan shall outline site-specific management practices for minimizing and preventing pollution from stormwater and other nonpoint sources, and residential boating sources.

The BMP Plan is a written document that must contain a compliance activity schedule, a description of activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references to parts of other plans. A copy of any requirements incorporated by reference must be kept at the Facility. The BMP Plan must be revised whenever appropriate and shall be readily available for review by facility employees or Regional Board inspectors. Through this plan the Discharger shall assure that discharges would neither cause, nor contribute to, an exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water.

The objectives of the BMP Plan are: 1) to identify and evaluate sources of pollutants associated with activities being conducted at the marina and in the Tahoe Keys neighborhood that have the potential to be discharged into surface waters and 2) to identify and implement site-specific BMPs to reduce or prevent pollutants associated with these activities from discharging into surface waters. To achieve these objectives,

the Discharger shall implement appropriate BMPs to minimize impacts to the water quality of the receiving water. Types of BMPs that should be considered for control and reduction of pollutants from the Tahoe Keys neighborhood and pollutants typical of residential boating activities include, but are not limited to, the following:

1. Stencil storm drain inlets with a legible 'No Dumping Drains to Lake' or equivalent message. Posting signs with prohibitive language discouraging illegal dumping at designated public access points to creeks, the lagoons, and Lake Tahoe.

2. Revegetate or mulch exposed soils to minimize erosion.

3. Develop and annually disseminate educational materials to residential property owners addressing the following topics:

    a. Importance of paving dirt roads, driveways and parking areas

    b. Need to revegetate or mulch exposed soils

    c. Using soil retaining structures or stabilization techniques on eroding slopes

    d. Landscape irrigation techniques to reduce water usage and to maximize efficiency and water uptake by plants

    e. Storm water runoff control and disposal (infiltration or vegetated treatment areas)

    f. Proper fertilization practices

    g. Proper practices for disposal of vehicle maintenance wastes, household wastes, and pet wastes

    h. Proper techniques for efficient driveway deicer and abrasive application and storage

    i. The importance of notifying the TKPOA of improper practices or lack of pollution controls

    j. BMPs that minimize/prevent the discharge of floating debris includes: post "Do Not Litter" signs, incorporate litter pickup into groundskeepers duties; organize neighborhood cleanup events; educate the public about proper disposal methods for solid waste products.

    k. Residential boating BMPs that address:

        i. Proper fueling operations to ensure that fuel and oil spills are prevented, identified, and cleaned up by maintaining and regularly inspecting fuel transfer equipment to ensure the protection of water quality in the

adjacent water bodies; using spill and overflow protection (e.g., absorbent pads); educating boaters in proper fueling techniques

ii. Educating boaters about proper sewage pump-out at approved facilities and about proper cleaning methods designed to prevent the release of toxics into the water.

Additional types of BMPs appropriate for controlling discharges from the TKM areas, such as proper disposal practices of sanitary wastes from marine heads and prevention of illicit sewage discharges from boats, are described in Attachment G of the General Permit for Marinas in the Lake Tahoe Hydrologic Unit (Board Order No. 6-00-36, NPDES Permit No. CAG616003) are not part of this Order.

20. Antibacksliding

State and Federal antibacksliding and antidegradation policies require Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) and 303(d)(4) of the Clean Water Act (CWA) and in Title 40, Code of Federal Regulations (40 CFR), section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

21. Notification of Interested Parties

The Regional Board has notified the permittee and other interested agencies and persons of its intent to issue an updated NPDES permit for the discharge, and has provided them an opportunity to attend a public meeting and to submit written comments and recommendations regarding this matter.

22. Consideration of Public Comment

The Regional Board, in a public meeting, heard and considered all comments pertaining to the Facility and the discharge.

IT IS HEREBY ORDERED, that the permittee, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Federal Clean Water Act of 1997, as amended, and regulations and guidelines adopted thereunder, shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limitations

The discharge of circulated water shall not cause the quality of the surface waters in the lagoons or Lake Tahoe to exceed the background[1] water quality levels.

B. Receiving Water Limitations

1. The discharge of circulated water generated within the Facility to surface waters shall not cause the following water quality objectives to be exceeded for the waters of Lake Tahoe and its tributaries:

Constituent	Units	Annual Average Value	90th Percentile
Total Dissolved Solids	mg/l	60	65
Total Nitrogen	mg/l as N	0.15	—
Total Phosphorus	mg/l as P	0.008	—
Chloride	mg/l	3.0	4.0
Sulfate	mg/l	1.0	2.0
Boron	mg/l	0.01	—

2. The discharge of flows generated within the Facility shall not cause or contribute to violation of the following water quality objectives for the waters of Lake Tahoe and its tributaries:

a. Acid-soluble aluminum: four-day average concentration not to exceed 87 μ/l more than once every three years; one-hour average concentration not to exceed 750 μ/l more than once every three years.

[1] "Background " water quality, for the purposes of this order, shall be determined from the most recent quarterly monitoring data required pursuant to Section I.B.1.a in the Monitoring and Reporting Program.

b. Ammonia: The fraction of neutral, un-ionized ammonia (NH_3) to total ammonia (ammonium plus ammonia) is a function of temperature and pH. Basin Plan Tables 5.1-5 and 5.1-6 were derived from USEPA ammonia criteria for protection of fresh water aquatic life, and are reproduced in Attachment C. Ammonia concentrations shall not exceed the values listed for the corresponding conditions in those Tables. For temperature and pH values not explicitly in the Tables, the most conservative values neighboring the actual value may be used, or criteria can be calculated from numerical formulas developed by USEPA.

c. Any substance or substances in concentrations that are toxic, or that produce detrimental physiological responses, to human, plant, or animal life.

3. The discharge to surface or ground waters from operation of the Facility shall not cause a violation of the following water quality objectives for waters of the Lake Tahoe Hydrologic Unit:

a. Algal Growth Potential. For Lake Tahoe, the mean annual algal growth potential at any point in Lake Tahoe shall not be greater than twice the mean annual algal growth potential at the limnetic reference station.

b. Biological Indicators. For Lake Tahoe, algal productivity and the biomass of phytoplankton, zooplankton, and periphyton shall not be increased beyond the levels recorded in 1967-71, based on statistical comparison of seasonal and annual means.

c. Clarity. For Lake Tahoe, the vertical extinction coefficient shall be less than 0.08 per meter when measured below the first meter. When water is too shallow to determine a reliable extinction coefficient, the turbidity shall not exceed 3 Nephelometric Turbidity Units (NTU). In addition, turbidity shall not exceed 1 NTU in shallow waters not directly influenced by stream discharges.

d. Conductivity, Electrical. In Lake Tahoe, the mean annual electrical conductivity shall not exceed 95 μmhos/cm at 50°F at any location in the Lake.

e. pH. In Lake Tahoe, the pH shall not be depressed below 7.0 nor raised above 8.4.

f. Plankton Counts**.** For Lake Tahoe, the mean seasonal concentration of plankton organisms shall not be greater than 100 per ml and the maximum concentration shall not be greater than 500 per ml at any point in the Lake.

g. Suspended Sediment. Suspended sediment concentrations in streams tributary to Lake Tahoe shall not exceed a 90th percentile value of 60 mg/L.

h. Transparency. For Lake Tahoe, the secchi disk transparency shall not be decreased below the levels recorded in 1967-71, based on a statistical comparison of seasonal and annual mean values.

i. Bacteria, Coliform. Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.

j. Biostimulatory Substances. Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.

k. Chemical Constituents. Waters shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in Title 22 of the California Code of Regulations. Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.

l. Chlorine, Total Residual. For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 2 μ/L or a maximum value of 3 μ/L. Median values shall be based on daily measurements taken within any six-month period.

m. Color. Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

n. Dissolved Oxygen. The dissolved oxygen concentration, as percent saturation at ambient water temperature, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. For protection of aquatic life, the seven-day mean dissolved oxygen level shall not be less 6.5 mg/l, with a one-day minimum dissolved oxygen level of not less than 5.0 mg/L.

o. Floating Materials. Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses. For natural high quality waters, the concentrations of floating material shall not be altered to the extent that such alterations are discernable at the 10 percent significance level.

p. Oil and Grease. Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses. For natural high quality waters, the concentration of oils, greases, or other film or coat generating substances shall not be altered.

q. Nondegradation of Aquatic Communities and Populations. All wetlands shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life. All wetlands shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.

r. Pesticides. For the purposes of this NPDES permit, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code § 12753). Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection

procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life. Waters shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Table 64444-A of Section 64444 (Organic Chemicals) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

s. Radioactivity. Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the California Code of Regulations which is incorporated by reference into this plan. This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect.

t. Sediment. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.

u. Settleable Materials. Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of settleable materials shall not be raised by more that 0.1 milliliter per liter.

v. Suspended Materials. Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affect the water for beneficial uses. For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

w. Taste and Odor. Waters shall not contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For

naturally high quality waters, the taste and odor shall not be altered.

x. Temperature. The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such an alteration in temperature does not adversely affect the water for beneficial uses. For waters supporting cold freshwater habitat beneficial uses, the temperature shall not be altered.

y. Toxicity. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or, when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1992).

The Discharger must comply with the CTR requirements of the State Implementation Plan, and the Regional Board shall determine if effluent limitations are needed for any specific constituents. The Regional Board may reopen this permit to require specific effluent limits, if needed.

z. Turbidity. Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

C. General Requirements and Prohibitions

1. The waters shall be circulated between the lagoons and the marina such that hydrologic control is maintained and balanced. This Order does not allow marina water to be recirculated to the lagoons without a return flow from the circulation system to the marina.

2. The discharge of any toxic chemical or hazardous waste is prohibited.

3. Discharges from the Facility, including pollutants from adjacent land areas and surface waters, shall not cause a pollution or nuisance, as defined in Section 13050 of the California Water Code.

4. The operation of the Water Treatment Plant (WTP) is prohibited under this Order. If the Discharger determines that it will test or utilize the WTP, the Discharger must obtain approval from the Regional Board under a separate Order.

5. The discharge of waters containing aluminum-contaminated sediment at levels toxic to aquatic life, industrial waste, garbage, other liquid and solid wastes, or any deleterious material, to surface waters of the Lake Tahoe Hydrologic Unit is prohibited.

D. Notification Requirements

The Discharger shall notify the Regional Board Executive Officer by telephone as soon as the Discharger or the Discharger's agents have knowledge of any discharge in violation of this permit and shall confirm this notification in writing within one week of the telephone notification. The written notification shall contain pertinent information explaining reasons for the discharge, and indicate steps taken, and dates thereof, to correct the problem and prevent it from reoccurring. An estimate of the amount of flow discharged shall be included.

II. PROVISIONS

A. Explanatory Provisions

1. The mass discharge rate, in pounds per day, is obtained from the following equation:

$$\text{Daily discharge rate} = (8.34/N)\sum_{i=1}^{N} Q_i C_i$$

in which N is the number of samples, and Q_i and C_i are, respectively, the flow rate (mgd) and the constituent concentration (mg/L) associated with each of the N grab samples taken within the period of any 24-hour calendar day. If a composite sample is taken, C_i is the concentration measured in the composite sample, and Q_i is the average flow rate occurring during the period over which samples are composited.

2. The 30-day mean shall be the arithmetic average of all the daily discharge rates calculated using the analytical results of all samples collected during any 30 consecutive calendar-day period. Maximum limitations shall be applied to the measurement values obtained for any single grab sample or any single composite sample. Annual means shall be determined based upon an arithmetic average of all samples collected in any 12 consecutive month period.

3. Surface waters, as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial watercourses, natural lakes, and artificial impoundments of waters within the State of California. The TKPOA lagoons are considered surface waters of the State of California.

4. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from liability under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.

B. BMP Plan

1. Pursuant to Section 13267(b) of the California Water Code, the Discharger must submit a BMP Plan to the Regional Board by not later than **June 9, 2005**.

2. The BMP Plan is a written document that must contain a compliance activity schedule, a description of activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references to parts of other plans. A copy of any requirements incorporated by reference must be kept at the Facility. The BMP Plan must be revised whenever appropriate and shall be readily available for review by facility employees or Regional Board inspectors. Through this plan the Discharger shall assure that discharges would neither cause, nor contribute to, an exceedance of water quality standards and objectives, nor create conditions of nuisance in the receiving water.

3. The BMP Plan shall outline site-specific management practices for minimizing and preventing pollution from stormwater and other nonpoint sources, and residential boating sources.

4. The objectives of the BMP Plan are: 1) to identify and evaluate sources of pollutants associated with activities being conducted at the marina and in the Tahoe Keys neighborhood that have the potential to be discharged into surface waters and 2) to identify and implement site-specific BMPs to reduce or prevent pollutants associated with these activities from discharging into surface waters.

5. To achieve these objectives, the Discharger shall implement appropriate BMPs to minimize impacts to the water quality of the receiving water.

C. Monitoring and Reporting

1. Pursuant to Section 13267(b) of the California Water Code, the Discharger shall comply with Monitoring and Reporting Program No. R6T-2004-0024 and with the "General Monitoring and Reporting Provisions."

2. The Discharger shall submit an annual BMP Plan report by no later than November 1 of each year covering the previous 12 months from October 1 through September 30 (except the first period will be from June 9, 2004 through September 30, 2004). The BMP Plan shall including these minimum elements:

   a. Problem Description & Assessment - Identify potential pollutant constituents and sources, and describe locations and approximate loading amounts of those sources.

   b. BMPs Planned – Include a schedule listing specific BMPs planned to address the identified problems and describe the details of each BMP and explain how the BMP implementation will adequately address the problem. Show the anticipated BMP implementation date on the schedule.

   c. BMPs Implemented – Describe the BMPs that were implemented for the reporting period. Discuss constraints, obstacles, and other problems noted during the reporting period.

3. In the event the Discharger is unable to comply with any of the conditions of this Order due to:

   a. breakdown or serious malfunction of water circulation equipment;

   b. accidents caused by human error or negligence;

   c. other causes such as acts of nature;

   The Discharger shall notify the Executive Officer by telephone as soon as the Discharger or the Discharger's agents have knowledge of the incident or noncompliance and confirm this notification in writing within one week of the telephone notification. The written notification, pursuant to Section 13267(b) of the California Water Code, shall contain pertinent information explaining reasons for the discharge, and indicating steps taken, and dates and times thereof, to correct the problem and prevent it from reoccurring.

4. The Discharger shall file a report of waste discharge with the Regional Board at least 180 days before making any material change or proposed change in the character, location, or volume of the discharge.

C. Administrative Provisions

1. Board Order No. 6-98-35 expired on June 4, 2003, and is hereby rescinded.

2. The Discharger shall comply with "Standard Provisions for NPDES Permits," as shown on Attachment "D", which is made a part of this Order.

3. If a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act, or amendments thereto, for a toxic pollutant which is present in the discharge authorized herein, and such standard or prohibition is more stringent than any limitation upon such pollutant in this Order, the Regional Board will revise or modify this Order in accordance with such toxic effluent standard or prohibition and so notify the Discharger.

4. This Order expires five years from the date of its adoption, on July 9, 2009, and the Tahoe Keys Property Owners Association must file a report of waste discharge in accordance with Title 23 of the California Code of Regulations, **no later than 180 days in advance** of such date as application for issuance of new waste discharge requirements.

5. The California Regional Water Quality Control Board, Lahontan Region, hereby reserves the privilege of changing all or any portion of this Order upon legal notice to all concerned parties, and after an opportunity to be heard is given to all concerned parties.

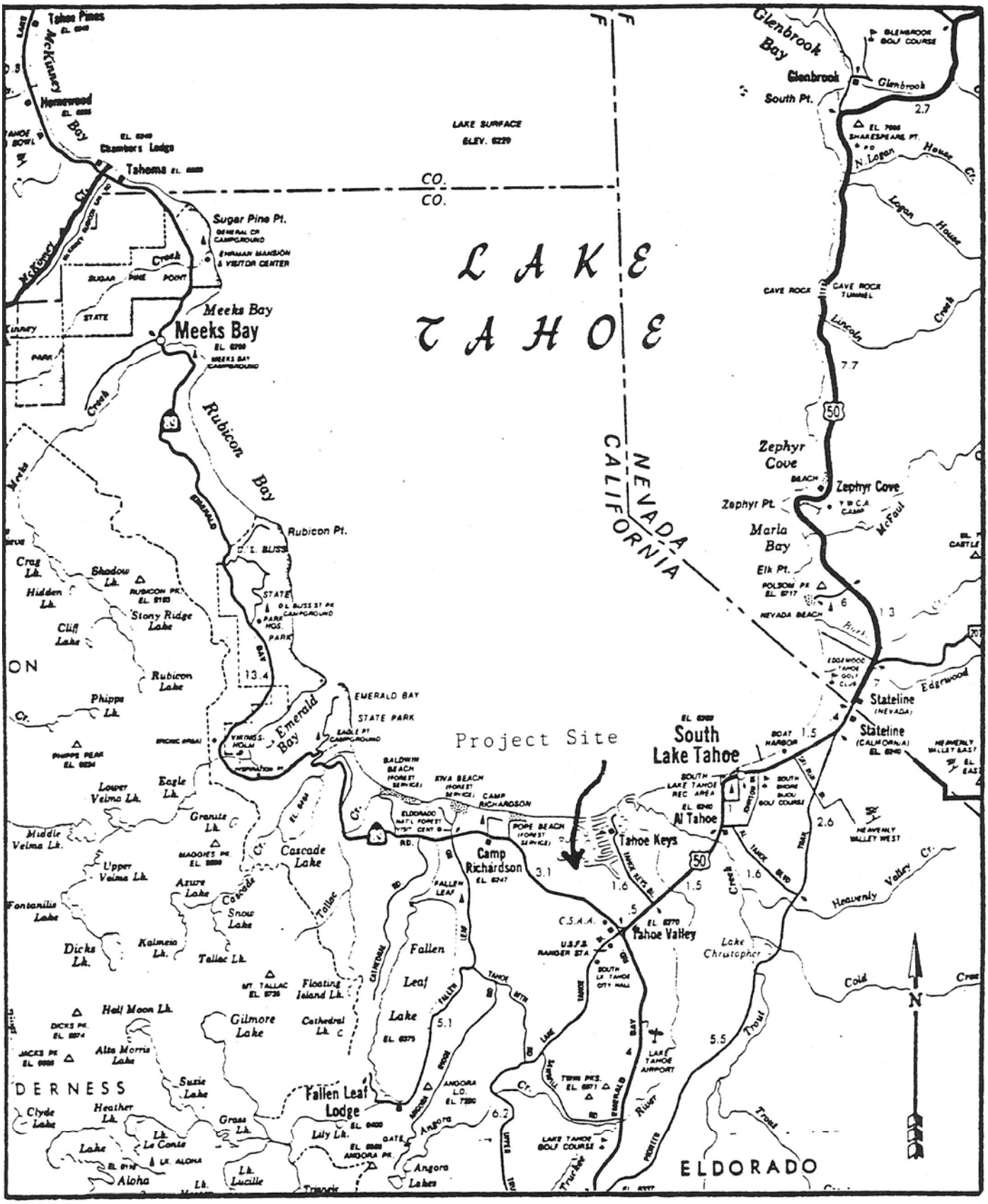
I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 9, 2004.

_____

HAROLD J. SINGER
EXECUTIVE OFFICER

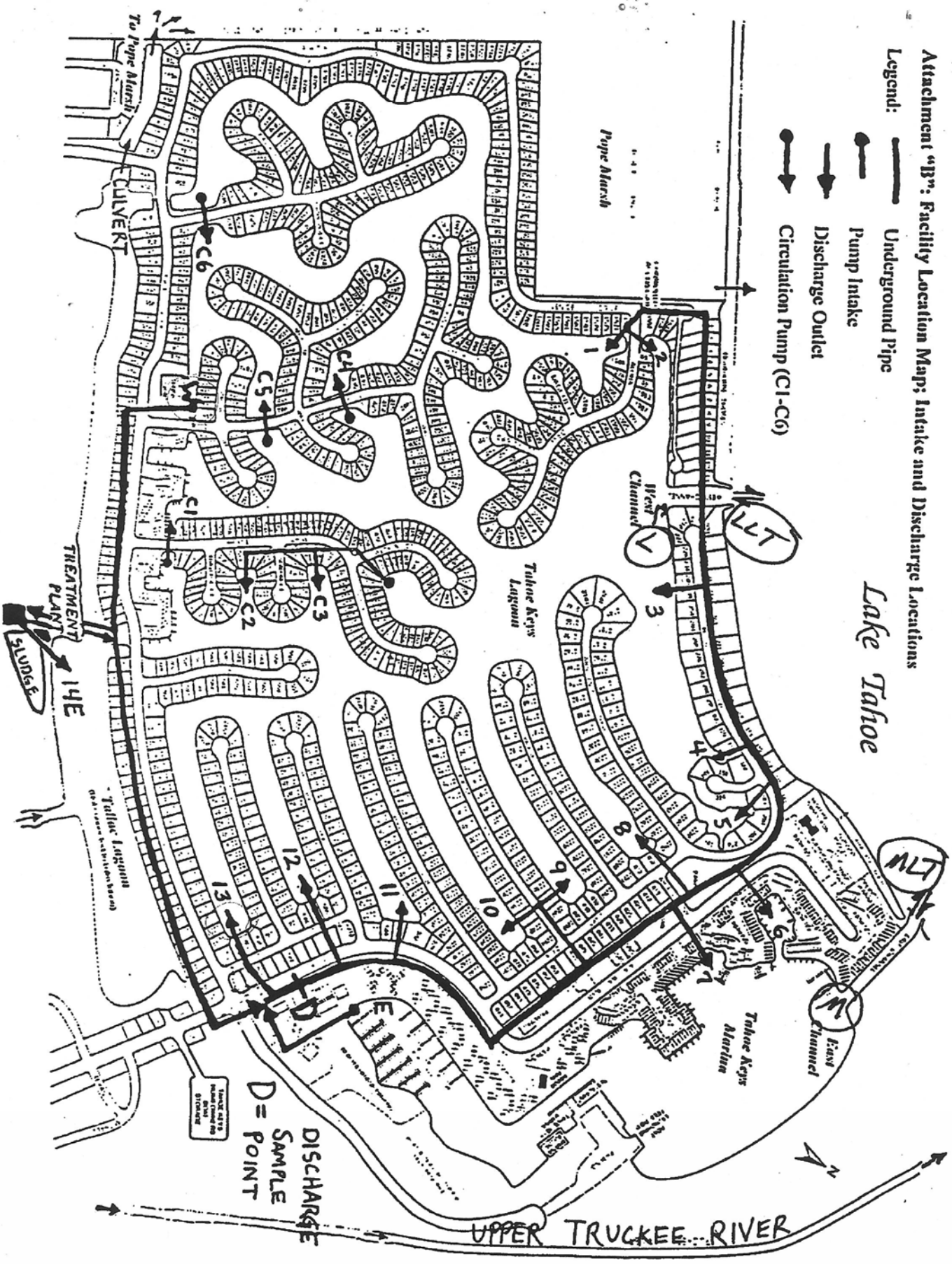
Attachments: A. General Location Map
B. Facility Location Map; Intake and Discharge Locations
C. Ammonia Toxicity; Basin Plan Tables 5.1-5 and 5.1-6
D. Standard Provisions for NPDES Permits

BTW/cgT: TKPOA.NPDES.permit.2004



ATTACHMENT "A"
Project Location
Tahoe Keys Water
Treatment Facility

ATTACHMENT "B"



ATTACHMENT "C"

Table 5.1-5
ONE-HOUR AVERAGE CONCENTRATION FOR AMMONIA[1,2]

Waters Designated as COLD, COLD with SPWN, COLD with MIGR (Salmonids or other sensitive coldwater species present)

	Temperature, °C						
pH	0	5	10	15	20	25	30
Un-ionized Ammonia (mg/liter NH_3)							
6.50	0.0091	0.0129	0.0182	0.026	0.036	0.036	0.036
6.75	0.0149	0.021	0.030	0.042	0.059	0.059	0.059
7.00	0.023	0.033	0.046	0.066	0.093	0.093	0.093
7.25	0.034	0.048	0.068	0.095	0.135	0.135	0.135
7.50	0.045	0.064	0.091	0.128	0.181	0.181	0.181
7.75	0.056	0.080	0.113	0.159	0.22	0.22	0.22
8.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.25	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.50	0.065	0.092	0.130	0.184	0.26	0.26	0.26
8.75	0.065	0.092	0.130	0.184	0.26	0.26	0.26
9.00	0.065	0.092	0.130	0.184	0.26	0.26	0.26
Total Ammonia (mg/liter NH_3)							
6.50	35	33	31	30	29	20	14.3
6.75	32	30	28	27	27	18.6	13.2
7.00	28	26	25	24	23	16.4	11.6
7.25	23	22	20	19.7	19.2	13.4	9.5
7.50	17.4	16.3	15.5	14.9	14.6	10.2	7.3
7.75	12.2	11.4	10.9	10.5	10.3	7.2	5.2
8.00	8.0	7.5	7.1	6.9	6.8	4.8	3.5
8.25	4.5	4.2	4.1	4.0	3.9	2.8	2.1
8.50	2.6	2.4	2.3	2.3	2.3	1.71	1.28
8.75	1.47	1.40	1.37	1.38	1.42	1.07	0.83
9.00	0.86	0.83	0.83	0.86	0.91	0.72	0.58

1. To convert these values to mg/liter N, multiply by 0.822
2. Source: U. S. Environmental Protection Agency. 1986. Quality criteria for water, 1986. EPA 440/5-86-001.

T:/TKPOA.AttCAmmoniaTbls

Table 5.1-6
FOUR DAY AVERAGE CONCENTRATION FOR AMMONIA[1,2]

Waters Designated as COLD, COLD with SPWN, COLD with MIGR (Salmonids or other sensitive coldwater species present)

	Temperature, °C						
pH	0	5	10	15	20	25	30
Un-ionized Ammonia (mg/liter NH_3)							
6.50	0.0008	0.0011	0.0016	0.0022	0.0022	0.0022	0.0022
6.75	0.0014	0.0020	0.0028	0.0039	0.0039	0.0039	0.0039
7.00	0.0025	0.0035	0.0049	0.0070	0.0070	0.0070	0.0070
7.25	0.0044	0.0062	0.0088	0.0124	0.0124	0.0124	0.0124
7.50	0.0078	0.0111	0.0156	0.022	0.022	0.022	0.022
7.75	0.0129	0.0182	0.026	0.036	0.036	0.036	0.036
8.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.25	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.50	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
8.75	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
9.00	0.0149	0.021	0.030	0.042	0.042	0.042	0.042
Total Ammonia (mg/liter NH_3)							
6.50	3.0	2.8	2.7	2.5	1.76	1.23	0.87
6.75	3.0	2.8	2.7	2.6	1.76	1.23	0.87
7.00	3.0	2.8	2.7	2.6	1.76	1.23	0.87
7.25	3.0	2.8	2.7	2.6	1.77	1.24	0.88
7.50	3.0	2.8	2.7	2.6	1.78	1.25	0.89
7.75	2.8	2.6	2.5	2.4	1.66	1.17	0.84
8.00	1.82	1.70	1.62	1.57	1.10	0.78	0.56
8.25	1.03	0.97	0.93	0.90	0.64	0.46	0.33
8.50	0.58	0.55	0.53	0.53	0.38	0.28	0.21
8.75	0.34	0.32	0.31	0.31	0.23	0.173	0.135
9.00	0.195	0.189	0.189	0.195	0.148	0.116	0.094

1. To convert these values to mg/liter N, multiply by 0.822.
2. Source: U. S. Environmental Protection Agency. 1992. Revised tables for determining average freshwater ammonia concentrations.

ATTACHMENT "D"

STANDARD PROVISIONS
FOR
NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES) PERMITS

1. The permittee must comply with all of the terms, requirements, and conditions of this NPDES Permit. Any violation of this Permit constitutes violation of the Clean Water Act (CWA), its regulations and the California Water Code, and is grounds or enforcement action, permit termination, permit revocation, and reissuance, denial of an application for permit reissuance; or a combination thereof.

2. The permittee shall comply with effluent standards or prohibitions established under 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Permit has not yet been modified to incorporate the requirement. [40 CFR 122.41(a)(l)]

   The California Water Code provides that any person who violates a Waste Discharge Requirement (same as permit condition), or a provision of the California Water Code, is subject to civil penalties of up to $1,000 per day or $10,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $20 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.*

   Violations of any of the provisions of the NPDES program, or of any of the provisions of this Permit, may subject the violator to any of the penalties described herein, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.*

3. The CWA provides that any person who violates a Permit condition implementing Sections 301, 302, 306, 307, or 308 of the CWA is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates Permit conditions implementing these Sections of the CWA is subject to a fine of not less than $2,500, nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. [40 CFR 122.41(a)(2)]

4. If the permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, the permittee must apply for and obtain a new Permit. [40 CFR 122.41(b)]

5. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [40 CFR 122.41(c)]

6. The permittee shall take all reasonable steps to minimize or prevent any discharge that has a reasonable likelihood of adversely affecting health or the environment. [40 CFR 122.41(d)]

7. The permittee shall, at all times, properly operate and maintain all the facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with this Permit.

   Proper operation and maintenance includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities, or similar systems that are installed by a permittee only when necessary to achieve compliance with the conditions of this Permit. [40 CFR 122.41(e)]

8. This Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 122.41(g)]

9. This Permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 122 .41(f)]

10. The permittee shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit. The permittee shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Permit. [40 CFR 122.41(h)]

11. The Regional Board, EPA, and other authorized representatives shall be allowed:

    (a) Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Permit;

    (b) Access to copy any records that are kept under the conditions of this Permit;

    (c) To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

    (d) To photograph, sample, and monitor for the purpose of assuring compliance with this Permit, or as otherwise authorized by the CWA. [40 CFR 122.41(I)]

12. Monitoring and records.

    (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    (b) The permittee shall retain records of all monitoring information, including all calibration and maintenance monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least three years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Board or EPA at any time.

    (c) Records of monitoring information shall include:

        (i) The date, exact place, and time of sampling or measurements;
        (ii) The individual(s) who performed the sampling or measurements;
        (iii) The date(s) analyses were performed;
        (iv) The individual(s) who performed the analyses;
        (v) The analytical techniques or methods used; and
        (vi) The results of such analyses.

    (d) Monitoring must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this Permit.

(e) The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device, or method required to be maintained under this Permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

[40 CFR 122.41(j)]

13. All applications, reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22 [40 CFR 122.41(k)(1)]

14. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both. [40 CFR 122.41(k)(2)]

15. Reporting requirements:

(a) The permittee shall give advance notice to the Regional Board, as soon as possible of, any planned physical alterations, or additions to the permitted facility.

(b) The permittee shall give advance notice to the Regional Board of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

(c) This Permit is not transferable to any person, except after notice to the Regional Board. The Regional Board may require modification, or revocation and reissuance of the Permit to change the name of the permittee, and incorporate such other requirements as may be necessary under the CWA.

(d) Monitoring results shall be reported at the intervals specified elsewhere in this Permit.

(i) Monitoring results must be reported in a Discharge Monitoring Report (DMR).
(ii) If the permittee monitors any pollutant more frequently than required by this Permit using test procedures approved under 40 CFR Part 136 or as specified in this Permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.
(iii) Calculations for all limitations that require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this Permit.

(e) Report of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date.

(f) Twenty-four hour reporting.

(i) The permittee shall report any noncompliance that may endanger health or the environment to the Regional Board. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within five days of the time the permittee

becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(ii) The following shall be included as information that must be report within 24 hours under this paragraph;

(A) Any unanticipated bypass that exceeds any effluent limitation in the Permit.
(B) Any upset that exceeds any effluent limitation in the Permit.
(C) Violation of a maximum daily discharge limitation for any of the pollutants listed in this Permit to be reported within 24 hours.

(iii) The Regional Board may waive the above-required written report on a case-by-case basis.

(g) The permittee shall report all instances of noncompliance, not otherwise reported under the above paragraphs, at the time monitoring reports are submitted. The reports shall contain all information listed in paragraph 15(f) above.[40 CFR 122.41(1)]

16. Bypass (the intentional diversion of waste streams from any portion of facility) is prohibited. The Board may take enforcement action against the permittee for bypass unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.);

(b) There were no feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment downtime or preventive maintenance; and

(c) The permittee submitted a notice, at least ten days in advance, of the need for a bypass to the appropriate Board.

The permittee may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if it is for essential maintenance to assure efficient operation. In such a case, the above bypass conditions are not applicable.

The permittee shall submit notice of an unanticipated bypass as required in paragraph 15(f) above. [40 CFR 122.41(m)]

17. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or

careless or improper action. A permittee that wishes to establish the affirmative defense of an upset in an action brought for noncompliance shall demonstrate, through signed, contemporaneous operating logs, or other relevant evidence that:

(a) an upset occurred and that the permittee can identify the cause(s) of the upset;

(b) the permitted facility was being properly operated at the tine of the upset;

(c) the permittee submitted notice of the upset as required in paragraph 15(f) above; and

(d) the permittee complied with any remedial measures required under paragraph 7.

No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset; is final administrative action subject to judicial review.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof. [40 CFR 122.41(n)]

18. All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Regional Board as soon as they know or have reason to believe:

(a) that any activity has occurred or will occur that would result in the discharge of any toxic pollutant that is not limited in this Permit, if that discharge will exceed the highest of the following "notification levels:"

(i) One hundred micrograms per liter (100 μg/L);
(ii) Two hundred micrograms per liter (200 μg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μg/L) for 2-4dinitrophenol and 2-methyl-4-b-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
(iii) Five (5) times the maximum concentration value reported for that pollutant in the Permit application; or
(iv) The level established by the Regional Board in accordance with 40 CFR 122.44(f).

(b) that they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant that was not reported in the Permit application. [40 CFR 122.42(a)]

* This paragraph was added or modified by the State Water Quality Control Board to the California Water Code.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LAHONTAN REGION

MONITORING AND REPORTING PROGRAM NO. R6T-2004-0024
WDID NO. 6A090089000
NPDES NO. CA0103021

FOR

TAHOE KEYS PROPERTY OWNERS ASSOCIATION
LAGOON WATER CIRCULATION SYSTEM

El Dorado County

I. MONITORING

The following monitoring program shall be implemented.

A. General Information

1. General Provisions: This Monitoring and Reporting Program (MRP) includes requirements for monitoring and reporting water quality data as required under NPDES No. CA0103021. The Discharger shall comply with *General Provisions for Monitoring and Reporting*, dated September 1, 1994, which is included as Attachment "1" and made part of this Monitoring and Reporting Program.

2. California Toxics Rule (CTR) Requirements: The Discharger is collecting water quality data to comply with CTR requirements. If Regional Board staff determine that effluent limitations are appropriate for certain constituents, the Permit will be reopened in accordance with Provision II of Board Order No. R6T-2004-0024 and effluent limitations in the Permit will be revised. The Discharger shall comply with CTR monitoring requirements as outlined in Attachments "2," ,"3" and "4" which are made part of this Monitoring and Reporting Program.

   The intake water pumped from the lagoons (Intake Point W) and from the marina (Intake Point E) may, or may not be, considered representative of the receiving water (Discharge Points 1 through 13). The Discharger may therefore request that the Regional Board consider granting intake water credits in accordance with the SIP, Section 1.4.4. In determining whether to grant intake water credits, the Regional Board will consider all relevant water quality information available. If the Discharger has or knows of such information that it wishes to be considered, that information shall be provided by the Discharger to the Regional Board. While this information

is not specifically required, the burden of proof shall be on the Discharger to demonstrate that any intake credits requested are based on historic water quality.

3. Monitoring: The purpose of water quality monitoring is to detect changes in the physical and chemical conditions in the waters as a result of Facility operations, and to monitor compliance with waste discharge requirements. Because the numerous Facility components may readily be taken in and out of operation, it is the intent of this sampling program to provide comprehensive monitoring while minimizing duplicative sampling requirements as a result of overlaps and lapses in the operation of Facility equipment. For the purposes of this monitoring program, "weekly thereafter" means a monitoring frequency of seven (7) days.

4. Practical Quantitation Limits: Because of the unique nature of waters in the Lake Tahoe Basin, exceptional analytical testing capabilities for nutrients and other contaminants are generally required to assure compliance with water quality standards and non-degradation objectives specified in the *Water Quality Control Plan for the Lahontan Region* and the NPDES Permit for the Facility. Practical Quantitation Limits, or PQLs, for chemical analyses are therefore specified herein. Values for PQLs (which are analytical reporting limits) are typically 4 to 5 times higher than minimum detection limits, or MDLs. PQLs shall be, at a minimum, as sensitive as the more restrictive of those required for analysis of pollutants (40 Code of Federal Regulations, Part 136), or analysis of drinking water (California Code of Regulations, Title 22, Division 4, Chapter 15; or 40 Code of Federal Regulations, Part 141).

5. Sampling Locations: Water quality sampling locations are specified in Attachment "B" of the NPDES permit. Samples shall be collected within 10 feet of the referenced sampling location.

6. Sampling Locations – Lagoon and Marina Water Quality Monitoring When Circulation System is Not in Operation: The following sampling stations shall be established to monitor the quality of the surface water as shown on Attachment "B" of the NPDES permit when the circulation system is not in operation: the West Side Pump Station intake (W); the East Side Pump Station intake (E); a discharge point near the West Channel ingress/egress (3); and a discharge point in a cove furthest from West Channel (13).

7. Sampling Locations – Lagoon and Marina Water Quality Monitoring When the Circulation System is in Operation: The following sampling stations shall be established to monitor the quality of the lagoons and

marina water as shown on Attachment "B" of the NPDES permit when the circulation system is in operation: A single sampling station shall be established to monitor the quality of the circulated water discharged from points 1 through 13. To obtain representative samples of waters discharged to the lagoon and/or marina, the sampling location shall be downstream of the intersection of the pipelines from the West Side Pump Station and the East Side Pump Station, and upstream of discharge point 12. This location shall be referred to as discharge monitoring point D, as indicated schematically by the letter D, as shown in Attachment "B" of the NPDES permit.

Individual sampling stations shall be established to monitor the quality of the circulated water discharged from points C1 through C6. To obtain representative samples of waters discharged to the lagoon through these discharge points, samples shall be taken at each discharge point that is operational, except that no samples shall be required to be taken at discharge points C5 or C6, and when discharge points C2 and C3 are operating simultaneously a sample need only be taken at point C2.

8. Sampling Locations – Lake Tahoe Water Quality Monitoring: Sampling stations shall also be established to monitor the quality of Lake Tahoe and compare it to the water quality inside the lagoons and marina. Sampling points shall be established inside and outside the lagoons and marina, at the West Channel and East Channel. These sampling points shall be designated L (for a point at the West Channel inside the lagoons) and LLT (for a point at the West Channel outside of the lagoons in Lake Tahoe) and M (for a point at the East Channel inside the marina) and MLT (for a point at the East Channel outside of the marina in Lake Tahoe).

9. Sample Type: Representative grab samples of waters to be analyzed shall be considered sufficient for the purposes of this monitoring program.

10. Analysis of Samples: All analyses shall be performed in accordance with the current edition of *Standard Methods for the Examination of Water and Wastewater*. Laboratories shall be certified by the California State Department of Health Services to perform such analyses, or by a laboratory approved by the Executive Officer.

B. **Water Quality Monitoring**

1. Water Quality Monitoring When Circulation System is Not in Operation

a. Water quality monitoring data shall be collected quarterly (pursuant to Section I.B.1.b. of the Monitoring and Reporting

Program) when the circulation system is not in operation for the purpose of establishing background water quality prior to a circulation period and to detect water quality degradation from non-point sources. The water quality sampling locations are described above in Section I.A.6 and are shown in Attachment "B" of the NPDES permit. All water samples are to be analyzed for the constituents in Table 1. Attachment "5" summarizes where and when monitoring data shall be collected when the circulation system is not in operation. Water quality data from the intake locations (E & W) shall be compared to the lagoon discharge locations (3 & 13) data and the marina discharge location (6 & 7) data to determine compliance with the effluent limitation specified in Order I.A.

b. Samples shall be collected quarterly from locations E, W, 3 and 13 not more than 15 days prior to each of the following dates: January 15, April 15, July 15, and October 15. Samples need not be collected if substantial ice cover in the sampling location is documented or during months when the circulation system is operated. When samples cannot be collected on the predetermined quarterly date due to weather or other conditions the Discharger shall make every attempt to collect samples within 15 days before or after the due date. If a sample could not be collected during that 30-day period, the Discharger shall submit a report stating the reason why sample data was not collected during that time.

2. Water Quality Monitoring When Circulation System is in Operation

a. Circulation system water quality monitoring data shall be collected at least once every seven calendar days (weekly) when the circulation system is in operation. The sampling locations are described above in Section I.A.7 and are shown in Attachment "B" of the NPDES permit. All water samples shall be analyzed for the constituents in Table 1. Attachment "5" summarizes where samples are to be taken depending on which component of the circulation system is in operation. Water quality data from intake area D shall be compared to data from discharge points to determine compliance with the effluent limitation specified in Order I.A.

b. The circulation system includes the East Side Pump Station and the West Side Pump Station that discharge at points 1 through 13, and five circulation pumps that discharge at points C1 through C5. Discharge points 6 and 7 are located in the marina. The

circulation system provides a wide degree of flexibility to operate different configurations of pumps and discharge outlets as needed. The sampling locations are described above in Section I.A.7 and shown in Attachment "B" of the NPDES permit. All water samples shall be analyzed for the constituents in Table 1. Requirements for sampling discharges at the various system components when operational are specified below.

Operation of West Side Pump Station and/or East Side Pump Station: If the West Side Pump Station and/or the East Side Pump Station are in operation and discharging through any of the 13 discharge points (1-13) discharge samples shall be collected at monitoring location D weekly during operation of the circulation system.

Operation of Discharge Outfalls C1-C6: When any of the discharge outfalls C1, C2, C3, C4, C5, or C6 are operated, water samples shall be collected weekly during operation of the circulation system. Samples shall be collected from any location(s) where a discharge will occur, with these exceptions:

- circulation discharge points C5 and C6 need not be sampled

- if circulation discharge points C2 and C3 are both simultaneously operated, samples shall be collected only from discharge point C2

Operation of Marina Discharge Outfalls 6 and 7: When either of the two discharge outlets in the marina are operated, water samples shall be collected weekly during operation of the circulation system. Samples shall be collected from any location where a discharge will occur, with this exception: if discharge points 6 and 7 are both simultaneously operated, samples need be collected only at discharge point 7.

c. When any component of the circulation system is in operation water samples shall be collected within one week prior to circulation system startup, weekly during operation of the circulation system, and the day following circulation system shutdown. Samples shall be collected at monitoring locations L, LLT, M, and MLT. The sampling locations are described above in Section I.A.8 and shown in Attachment "B" of the NPDES permit. All water samples shall be analyzed for the constituents in Table 1.

3. Water Quality Monitoring During Holiday Weekends

a. Water samples shall also be collected on a single day no more than two days prior and no more than two days after the July 4th holiday and the Labor Day holiday, regardless of whether the circulation system is in operation. The sampling locations are described above in Section I.A.7 and I.A.8 and are shown in Attachment "B" of the NPDES permit. All water samples shall be analyzed for the constituents in Table 1.

4. Monitoring Parameters

Water quality samples shall be collected for each of the parameters in Table 1.

Table 1: Monitoring Parameters

PARAMETER	**UNITS**	**PQL**
Turbidity	NTU	0.1 NTU
pH	pH units	0.01 units
Temperature	°F or °C	0.2 °F or 0.1 °C
Total Suspended Solids	mg/l	1.0 mg/l
Total Dissolved Solids	mg/l	10 mg/l
Nitrate/Nitrite Nitrogen	mg/l as N	0.01 mg/l as N
Ammonia Nitrogen	mg/l as N	0.01 mg/l as N
Total Kjeldahl Nitrogen	mg/l as N	0.08 mg/l as N
Total Phosphorus	μg/l as P	8 μg/l as P
Oil and Grease	mg/l	2 mg/l

Acid Soluble Aluminum	µg/l	10 µg/l
Fecal Coliform	CFU	1 CFU
PAHs		
Acenaphtene	µg/l	0.03 µg/l
Acenaphthylene	µg/l	0.03 µg/l
Anthracend	µg/l	0.03 µg/l
benz(a)anthracene	µg/l	0.03 µg/l
benzo(a)pyrene	µg/l	0.08 µg/l
benzo(b,k)fluoranthene	µg/l	0.10 µg/l
benzo(g,h,i)perylene	µg/l	0.10 µg/l
chrysene	µg/l	0.04 µg/l
dibenzo(a,h)anthracene	µg/l	0.10 µg/l
flouoranthene	µg/l	0.03 µg/l
fluorene	µg/l	0.03 µg/l
indeno(1,23-cd)pyrene	µg/l	0.10 µg/l
naphthalene	µg/l	0.02 µg/l
phenanthrene	µg/l	0.02 µg/l
pyrene	µg/l	0.02 µg/l
BTEX		
Benzene	µg/l	0.1 µg/l
Toluene	µg/l	0.5 µg/l
Ethylbenzene	µg/l	0.5 µg/l
Total Xylenes	µg/l	0.5 µg/l

Aluminum analyses shall be conducted using the acid-soluble measurement, operationally defined as the aluminum that passes through a 0.45 µm membrane filter after the sample has been acidified to a pH between 1.5 and 2.0 with nitric acid. The acidified solution may then be analyzed for dissolved aluminum in accordance with any USEPA-approved, or equivalent, standard method that achieves the PQL.

C. **Flow Monitoring**

The Discharger shall keep a log or permanent record of the following:

1. Average daily flow rate at monitoring location D during operation of the East Side Pump Station and/or West Side Pump Station, in millions of gallons per day.

2. Total volume of water discharged at monitoring location D during operation of the East Side Pump Station and/or West Side Pump Station in millions of gallons.

3. Estimated volume of water, in millions of gallons, discharged on a daily and monthly basis from each of the following locations: 6, 7, C1, C2, C3, C4, C5, and C6.

D. **Operations and Maintenance**

The Discharger shall keep a log or permanent record of the following:

1. For any Facility pump, the dates and hours of operation, the pump number or name, and the rated or estimated flow rate(s) during operation.

2. The calibration of any flow measuring devices.

II. REPORTING

A. Report Format & Content

1. The Discharger shall arrange the monitoring data in a concise form to clearly show compliance or non-compliance with each discharge specification to facilitate review by Regional Board staff. All violations of requirements shall be clearly described. The Discharger shall note and explain any occurrence of noncompliance with any waste discharge requirement. If there are no violations to report, the Discharger shall certify that fact in writing. This report shall include a summary of operational problems and maintenance activities as described in Section I.D., above.

2. For every item where the requirements are not met, the Discharger shall submit a statement of the actions taken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for completion. **Any omission of data should be accompanied by an explanation and plan to obtain the omitted data.**

3. All reports shall be signed by a responsible officer or duly authorized representative of the Discharger, shall include the name and contact

information for a person knowledgeable about the contents of the report, and shall be submitted under penalty of perjury.

B. **Reporting and Submittal Periods**

1. Quarterly monitoring reports shall be submitted annually not later than:

   January 1 (covering the preceding period from Sept. 1 to Nov. 30)
   April 1 (covering the preceding period from Dec. 1 to Feb. 28/29)
   July 1 (covering the preceding period from March 1 to May 31)
   October 1 (covering the preceding period from June 1 to Aug. 31)

2. Quarterly monitoring reports shall include a summary of water quality monitoring data in the format described in Section II.A above. Water quality data submitted by the Discharger shall be designated as Water Quality Data – Circulation System NOT in Operation and Water Quality – Circulation System in Operation. All sampling events occurring during the reporting periods shall be clearly organized and presented in that quarter's monitoring report.

C. **Operations and Maintenance Reporting Requirements**

A brief summary of maintenance activities and any operational problems shall be submitted to the Regional Board with each monitoring report. The summary shall discuss:

1. Any modification or additions to the water circulation system

2. Any major maintenance conducted on the water circulation system.

3. Any major problems occurring in the water circulation system.

4. The calibration of any measuring devices.

5. Aquatic plant removal operations conducted by the Discharger during the monitoring period. The estimated quantity of aquatic plants mechanically removed from the lagoon and/or marina during the monitoring period shall be reported with a map indicating the general locations of any aquatic plant removal activities. Quantities shall be indicated by the estimated volume (in cubic yards or cubic meters) of freshly harvested plant matter.

Ordered by: _____ Dated: _____

HAROLD J. SINGER

EXECUTIVE OFFICER

Attachments: 1. General Provisions for Monitoring and Reporting (September 1, 1994)
2. CTR Constituents to be Monitored
3. Dioxin and Furan CTR Sampling
4. Reporting Requirements for CTR Monitoring
5. Sampling Matrix

BTW/cgT: TKPOA MRP

ATTACHMENT 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

i. Standard Methods for the Examination of Water and Wastewater

ii. Methods for Chemical Analysis of Water and Wastes, EPA

b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship,by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.

ATTACHMENT 2
CTR Constituents To Be Monitored

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/l or noted) [1]	Minimum Reporting Level (ug/l or noted)	Suggested Test Methods
VOLATILE ORGANICS						
28	1,1-Dichloroethane	75343	Primary MCL	5	1	EPA 8260B
30	1,1-Dichloroethene	75354	National Toxics Rule	0.057	0.5	EPA 8260B
41	1,1,1-Trichloroethane	71556	Primary MCL	200	2	EPA 8260B
42	1,1,2-Trichloroethane	79005	National Toxics Rule	0.6	0.5	EPA 8260B
37	1,1,2,2-Tetrachloroethane	79345	National Toxics Rule	0.17	0.5	EPA 8260B
75	1,2-Dichlorobenzene	95501	Taste & Odor	10	2	EPA 8260B
29	1,2-Dichloroethane	107062	National Toxics Rule	0.38	0.5	EPA 8260B
31	1,2-Dichloropropane	78875	Calif. Toxics Rule	0.52	0.5	EPA 8260B
101	1,2,4-Trichlorobenzene	120821	Public Health Goal	5	5	EPA 8260B
76	1,3-Dichlorobenzene	541731	Taste & Odor	10	2	EPA 8260B
32	1,3-Dichloropropene	542756	Primary MCL	0.5	0.5	EPA 8260B
77	1,4-Dichlorobenzene	106467	Primary MCL	5	2	EPA 8260B
17	Acrolein	107028	Aquatic Toxicity	21	5	EPA 8260B
18	Acrylonitrile	107131	National Toxics Rule	0.059	2	EPA 8260B
19	Benzene	71432	Primary MCL	1	0.5	EPA 8260B
20	Bromoform	75252	Calif. Toxics Rule	4.3	2	EPA 8260B
34	Bromomethane	74839	Calif. Toxics Rule	48	2	EPA 8260B
21	Carbon tetrachloride	56235	National Toxics Rule	0.25	0.5	EPA 8260B
22	Chlorobenzene (mono chlorobenzene)	108907	Taste & Odor	50	2	EPA 8260B
24	Chloroethane	75003	Taste & Odor	16	2	EPA 8260B
25	2- Chloroethyl vinyl ether	110758	Aquatic Toxicity	122 [2]	1	EPA 8260B
26	Chloroform	67663	OEHHA Cancer Risk	1.1	0.5	EPA 8260B
35	Chloromethane	74873	USEPA Health Advisory	3	2.0	EPA 8260B
23	Dibromochloromethane	124481	Calif. Toxics Rule	0.41	0.5	EPA 8260B
27	Dichlorobromomethane	75274	Calif. Toxics Rule	0.56	0.5	EPA 8260B
36	Dichloromethane	75092	Calif. Toxics Rule	4.7	2	EPA 8260B
33	Ethylbenzene	100414	Taste & Odor	29	2	EPA 8260B
88	Hexachlorobenzene	118741	Calif. Toxics Rule	0.00075	1	EPA 8260B
89	Hexachlorobutadiene	87683	National Toxics Rule	0.44	1	EPA 8260B
91	Hexachloroethane	67721	National Toxics Rule	1.9	1	EPA 8260B
94	Naphthalene	91203	USEPA IRIS	14	10	EPA 8260B
38	Tetrachloroethene	127184	National Toxics Rule	0.8	0.5	EPA 8260B
39	Toluene	108883	Taste & Odor	42	2	EPA 8260B
40	trans-1,2-Dichloroethylene	156605	Primary MCL	10	1	EPA 8260B
43	Trichloroethene	79016	National Toxics Rule	2.7	2	EPA 8260B
44	Vinyl chloride	75014	Primary MCL	0.5	0.5	EPA 8260B

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/l or noted) [1]	Minimum Reporting Level (ug/l or noted)	Suggested Test Methods
SEMI-VOLATILE ORGANICS						
60	1,2-Benzanthracene	56553	Calif. Toxics Rule	0.0044	5	EPA 8270C
85	1,2-Diphenylhydrazine	122667	National Toxics Rule	0.04	1	EPA 8270C
45	2-Chlorophenol	95578	Taste and Odor	0.1	2	EPA 8270C
46	2,4-Dichlorophenol	120832	Taste and Odor	0.3	1	EPA 8270C
47	2,4-Dimethylphenol	105679	Calif. Toxics Rule	540	2	EPA 8270C
49	2,4-Dinitrophenol	51285	National Toxics Rule	70	5	EPA 8270C
82	2,4-Dinitrotoluene	121142	National Toxics Rule	0.11	5	EPA 8270C
55	2,4,6-Trichlorophenol	88062	Taste and Odor	2	10	EPA 8270C
83	2,6-Dinitrotoluene	606202	USEPA IRIS	0.05	5	EPA 8270C
50	2-Nitrophenol	25154557	Aquatic Toxicity	150 [3]	10	EPA 8270C
71	2-Chloronaphthalene	91587	Aquatic Toxicity	1600 [4]	10	EPA 8270C
78	3,3'-Dichlorobenzidine	91941	National Toxics Rule	0.04	5	EPA 8270C
62	3,4-Benzofluoranthene	205992	Calif. Toxics Rule	0.0044	10	EPA 8270C
52	4-Chloro-3-methylphenol	59507	Aquatic Toxicity	30	5	EPA 8270C
48	4,6-Dinitro-2-methylphenol	534521	National Toxics Rule	13.4	10	EPA 8270C
51	4-Nitrophenol	100027	USEPA Health Advisory	60	10	EPA 8270C
69	4-Bromophenyl phenyl ether	101553	Aquatic Toxicity	122	10	EPA 8270C
72	4-Chlorophenyl phenyl ether	7005723	Aquatic Toxicity	122 [2]	5	EPA 8270C
56	Acenaphthene	83329	Taste and Odor	20	1	EPA 8270C
57	Acenaphthylene	208968	No Criteria Available		10	EPA 8270C
58	Anthracene	120127	Calif. Toxics Rule	9,600	10	EPA 8270C
59	Benzidine	92875	National Toxics Rule	0.00012	5	EPA 8270C
61	Benzo(a)pyrene (3,4-Benzopyrene)	50328	Calif. Toxics Rule	0.0044	2	EPA 8270C
63	Benzo(g,h,i)perylene	191242	No Criteria Available		5	EPA 8270C
64	Benzo(k)fluoranthene	207089	Calif. Toxics Rule	0.0044	2	EPA 8270C
65	Bis(2-chloroethoxy) methane	111911	No Criteria Available		5	EPA 8270C
66	Bis(2-chloroethyl) ether	111444	National Toxics Rule	0.031	1	EPA 8270C
67	Bis(2-chloroisopropyl) ether	39638329	Aquatic Toxicity	122 [2]	10	EPA 8270C
68	Bis(2-ethylhexyl) phthalate	117817	National Toxics Rule	1.8	5	EPA 8270C
70	Butyl benzyl phthalate	85687	Aquatic Toxicity	3 [5]	10	EPA 8270C
73	Chrysene	218019	Calif. Toxics Rule	0.0044	5	EPA 8270C
81	Di-n-butylphthalate	84742	Aquatic Toxicity	3 [5]	10	EPA 8270C
84	Di-n-octylphthalate	117840	Aquatic Toxicity	3 [5]	10	EPA 8270C
74	Dibenzo(a,h)-anthracene	53703	Calif. Toxics Rule	0.0044	0.1	EPA 8270C
79	Diethyl phthalate	84662	Aquatic Toxicity	3 [5]	2	EPA 8270C
80	Dimethyl phthalate	131113	Aquatic Toxicity	3 [5]	2	EPA 8270C
86	Fluoranthene	206440	Calif. Toxics Rule	300	10	EPA 8270C
87	Fluorene	86737	Calif. Toxics Rule	1300	10	EPA 8270C
90	Hexachlorocyclopentadiene	77474	Taste and Odor	1	5	EPA 8270C
92	Indeno(1,2,3-c,d)pyrene	193395	Calif. Toxics Rule	0.0044	0.05	EPA 8270C
93	Isophorone	78591	National Toxics Rule	8.4	1	EPA 8270C
98	N-Nitrosodiphenylamine	86306	National Toxics Rule	5	1	EPA 8270C
96	N-Nitrosodimethylamine	62759	National Toxics Rule	0.00069	5	EPA 8270C
97	N-Nitrosodi-n-propylamine	621647	Calif. Toxics Rule	0.005	5	EPA 8270C
95	Nitrobenzene	98953	National Toxics Rule	17	10	EPA 8270C
53	Pentachlorophenol	87865	Calif. Toxics Rule	0.28	1	EPA 8270C
99	Phenanthrene	85018	No Criteria Available		5	EPA 8270C
54	Phenol	108952	Taste and Odor	5	1	EPA 8270C

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/l or noted) (1)	Minimum Reporting Level (ug/l or noted)	Suggested Test Methods
100	Pyrene	129000	Calif. Toxics Rule	960	10	EPA 8270C

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/l or noted)(1)	Minimum Reporting Level (ug/l or noted)	Suggested Test Methods
INORGANICS						
1	Antimony	7440360	Primary MCL	6	5	EPA 6020/200.8
2	Arsenic	7440382	Ambient Water Quality	0.018	1	EPA 6020/Hydride
15	Asbestos	1332214	National Toxics Rule/ Primary MCL	7 MFL	0.2 MFL >10um	EPA/600/R-93/116(PCM)
3	Beryllium	7440417	Primary MCL	4	1	EPA 6020/200.8
4	Cadmium	7440439	Public Health Goal	0.07	0.25	EPA 1638/200.8
5a	Chromium (total)	7440473	Primary MCL	50	2	EPA 6020/200.8
5b	Chromium (VI)	18540299	Public Health Goal	0.2	5	EPA 7199/ 1636
6	Copper	7440508	National Toxics Rule	4.1 (6)	0.5	EPA 6020/200.8
14	Cyanide	57125	National Toxics Rule	5.2	5	EPA 9012A
7	Lead	7439921	Calif. Toxics Rule	0.92 (6)	0.5	EPA 1638
8	Mercury	7439976	National Toxics Rule		0.0005	EPA 1669/1631
9	Nickel	7440020	Calif. Toxics Rule	24 (6)	5	EPA 6020/200.8
10	Selenium	7782492	Calif. Toxics Rule	5	5	EPA 6020/200.8
11	Silver	7440224	Calif. Toxics Rule	0.71 (6)	1	EPA 6020/200.8
12	Thallium	7440280	National Toxics Rule	1.7	1	EPA 6020/200.8
13	Zinc	7440666	Calif. Toxics Rule	54/ 16 (6)	10	EPA 6020/200.8

CTR #	Constituent	CAS Number	Basis	Criterion Concentration (ug/l or noted) (1)	Minimum Reporting Level (ug/l or noted)	Suggested Test Methods
PESTICIDES - PCBs						
110	4,4'-DDD	72548	Calif. Toxics Rule	0.00083	0.05	EPA 8081A
109	4,4'-DDE	72559	Calif. Toxics Rule	0.00059	0.05	EPA 8081A
108	4,4'-DDT	50293	Calif. Toxics Rule	0.00059	0.01	EPA 8081A
112	alpha-Endosulfan	959988	National Toxics Rule	0.056 (7)	0.02	EPA 8081A
103	alpha-Hexachlorocyclohexane (BHC)	319846	Calif. Toxics Rule	0.0039	0.01	EPA 8081A
102	Aldrin	309002	Calif. Toxics Rule	0.00013	0.005	EPA 8081A
113	beta-Endosulfan	33213659	Calif. Toxics Rule	0.056 (7)	0.01	EPA 8081A
104	beta-Hexachlorocyclohexane	319857	Calif. Toxics Rule	0.014	0.005	EPA 8081A

107	Chlordane	57749	Calif. Toxics Rule	0.00057	0.1	EPA 8081A
106	delta-Hexachlorocyclohexane	319868	No Criteria Available		0.005	EPA 8081A
111	Dieldrin	60571	Calif. Toxics Rule	0.00014	0.01	EPA 8081A
CTR #	**Constituent**	**CAS Number**	**Basis**	**Criterion Concentration (ug/l or noted) (1)**	**Minimum Reporting Level (ug/l or noted)**	**Suggested Test Methods**
114	Endosulfan sulfate	1031078	Ambient Water Quality	0.056	0.05	EPA 8081A
115	Endrin	72208	Calif. Toxics Rule	0.036	0.01	EPA 8081A
116	Endrin Aldehyde	7421934	Calif. Toxics Rule	0.76	0.01	EPA 8081A
117	Heptachlor	76448	Calif. Toxics Rule	0.00021	0.01	EPA 8081A
118	Heptachlor Epoxide	1024573	Calif. Toxics Rule	0.0001	0.01	EPA 8081A
105	Lindane (gamma-Hexachlorocyclohexane)	58899	Calif. Toxics Rule	0.019	0.02	EPA 8081A
119	PCB-1016	12674112	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
120	PCB-1221	11104282	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
121	PCB-1232	11141165	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
122	PCB-1242	53469219	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
123	PCB-1248	12672296	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
124	PCB-1254	11097691	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
125	PCB-1260	11096825	Calif. Toxics Rule	0.00017 (8)	0.5	EPA 8082
126	Toxaphene	8001352	Calif. Toxics Rule	0.0002	0.5	EPA 8081A
16	2,3,7,8-TCDD (Dioxin)	1746016	Calif. Toxics Rule	1.30E-08	5.00E-06	EPA 8290 (HRGC) MS

Footnotes:

(1) - The Criterion Concentrations serve only as a point of reference for the selection of the appropriate analytical method. They do not indicate a regulatory decision that the cited concentration is either necessary or sufficient for full protection of beneficial uses. Available technology may require that effluent limits be set lower than these values.
(2) - For haloethers
(3) - For nitrophenols.
(4) - For chlorinated naphthalenes.
(5) - For phthalate esters.
(6) - Freshwater aquatic life criteria for metals are expressed as a function of total hardness (mg/l) in the water body. Values displayed correspond to a total hardness of 40 mg/l.
(7) - Criteria for sum of alpha- and beta- forms.
(8) - Criteria for sum of all PCBs.

ATTACHMENT 3
Dioxin and Furan CTR Sampling

Section 3 of the State Implementation Plan requires that each NPDES discharger conduct sampling and analysis of dioxin and dibenzofuran congeners. The required number and frequency of sampling are as follows:

A. Major NPDES Dischargers – once during dry weather and once during wet weather for each of three years, for a total of six samples.
B. Minor NPDES Dischargers – once during dry weather and once during wet weather for one year during the three-year period, for a total of two samples.

Each sample shall be analyzed for the seventeen congeners listed in the table below. High Resolution GCMS Method 8290, or another method capable of individually quantifying the congeners to an equivalent detection level, shall be used for the analyses.

Sampling shall start during winter 2002/2003 and all analyses shall be completed and submitted by December 31, 2006. Sample results shall be submitted along with routine monitoring reports as soon as the laboratory results are available.

For each sample the discharger shall report:
1. The measured or estimated concentration of each of the seventeen congeners
2. The quantifiable limit of the test (as determined by procedures in Section 2.4.3, No. 5 of the SIP)
3. The Method Detection Level (MDL) for the test
4. The TCDD equivalent concentration for each analysis calculated by multiplying the concentration of each congener by the Toxicity Equivalency Factor (TEF) in the following table, and summing the resultant products to determine the equivalent toxicity of the sample expressed as 2,3,7,8-TCDD.

Congener	TEF
2,3,7,8TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCDD	0.0001
2,3,7,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4,7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0.1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6,7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

ATTACHMENT 4
Reporting Requirements for CTR Monitoring

1. **Laboratory Requirements**. The laboratory analyzing the monitoring samples shall be certified by the Department of Health Services in accordance with the provisions of Water Code Section 13176 and must include quality assurance/quality control data with their reports.

2. **Criterion Quantitation Limit (CQL)**. The criterion quantitation limits will be equal to or lower than the minimum levels (MLs) in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Copies of the SIP may be obtained from the State Water Resources Control Board, or downloaded from http://www.swrcb.ca.gov/iswp/final.pdf) or the detection limits for purposes of reporting (DLRs) published by the Department of Health Services (http://www.dhs.ca.gov/ps/ddwem/chemicals/DLR/dlrindex.htm) which is below the controlling water quality criterion concentrations summarized in attachment II of this letter.

3. **Method Detection Limit (MDL)**. The method detection limit for the laboratory shall be determined by the procedure found in 40 Code of Federal Regulations (CFR) Part 136, Appendix B (revised as of May 14, 1999).

4. **Reporting Limit (RL).** The reporting limit for the laboratory. This is the lowest quantifiable concentration that the laboratory can determine. Ideally, the RL should be equal to or lower than the CQL to meet the purposes of this monitoring.

5. **Reporting Protocols**. The results of analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

a. Sample results greater than or equal to the reported RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
b. Sample results less than the report RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory, if such information is available, may include numerical estimates of the data quantity for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
d. Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

6. **Data Format**. The monitoring report shall contain the following information for each pollutant:

   a. The name of the constituent.
   b. Sampling location.
   c. The date the sample was collected.
   d. The time the sample was collected.
   e. The date the sample was analyzed. For organic analyses, the extraction date will also be indicated to assure that hold times are not exceeded for prepared samples.
   f. The analytical method utilized.
   g. The measured or estimated concentration.
   h. The required Criterion Quantitation Limit (CQL).
   i. The laboratory's current Method Detection Limit (MDL), as determined by the procedure found in 40 CFR Part 136, Appendix B (revised as of May 14, 1999).
   j. The laboratory's lowest reporting limit (RL).
   k. Any additional comments.

ATTACHMENT 5

Sampling Location Requirements
When Circulation System Components are in Operation

Equipment	Sampling Location for Weekly Sampling										
	D	6	7	C1	C2	C3	C4	L*	LLT*	M*	MLT*
West Pump	X							X	X	X	X
East Pump	X							X	X	X	X
West & East	X							X	X	X	X
C1				X				X	X	X	X
C2					X			X	X	X	X
C3						X		X	X	X	X
C2&C3					X			X	X	X	X
C4							X	X	X	X	X
C5								X	X	X	X
C6								X	X	X	X
6 alone		X						X	X	X	X
7 alone			X					X	X	X	X
6 & 7			X					X	X	X	X

* Samples shall also be collected within one week prior to circulation system start-up, weekly during operation of the circulation system, and the day following circulation system shutdown

Sampling Location Requirements -

When Circulation System Components are Not in Operation

Quarterly	Sampling Location			
	W	E	3	13
January	X	X	X	X
April	X	X	X	X
July	X	X	X	X
October	X	X	X	X

X = Required Sample

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