CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

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ORDER NO. R6T-2016-0038
NPDES NO. CAG616003

GENERAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR STORM WATER RUNOFF ASSOCIATED WITH MARINA OPERATIONS IN THE LAKE TAHOE HYDROLOGIC UNIT —EL DORADO AND PLACER COUNTIES—

The following Dischargers are subject to waste discharge requirements as set forth in this Order.

Table 1. Discharger Information

Dischargers	Marina owners/operators conducting industrial activities and construction activities disturbing less than one acre of total land area at marinas in the Lake Tahoe Hydrologic Unit in the Lahontan Region of California.

Table 2. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, Lahontan Region on:	**June 8, 2016**
This Order shall become effective on:	**November 1, 2016**
This Order shall expire on:	**October 31, 2021**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance or reissuance of waste discharge requirements no later than:	**180 days prior to the Order expiration date**

I, Patty Kouyoumdjian, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 8, 2016.

Patty Z. Kouyoumdjian

PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

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I. DISCHARGE INFORMATION

This General National Pollutant Discharge Elimination System (NPDES) Permit and General Waste Discharge Requirements (WDRs) (hereafter the Marina General Permit) regulates discharges to land, land treatment systems, and surface waters of the United States in the Lake Tahoe Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 634.00), hereinafter referred to as the "Lake Tahoe HU," from the operation and maintenance of marinas. The owners and/or operators of the marinas covered by this Marina General Permit are referred to as the "Dischargers." Discharges authorized and regulated by the Marina General Permit are industrial storm water from marina operations, construction storm water from construction activities at marina facilities that disturb less than one acre of land, and authorized non-storm water discharges. The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) previously issued a General NPDES Permit for Industrial Storm Water Discharges from Marinas and Maintenance Dredging on April 13, 2011 (Order No. R6T-2011-0024, NPDES CAG616003). This Marina General Permit, which is effective November 1, 2016, supersedes Order No. R6T-2011-0024, which is revoked on October 31, 2016, except for enforcement purposes.

The WDR part of this Marina General Permit regulates commercial activities, such as storm water discharges from parking lots and minor construction (less than one acre, and not part of a common plan or development greater than one acre), at the marinas covered under this Marina General Permit. Previous to the requirements issued nationally for NPDES Industrial activities, all the marinas covered under this Marina General Permit were regulated by individual WDRs and these requirements have been carried forward from prior orders to cover all waste discharges incidental to the marina operations.

The federal Clean Water Act (CWA) prohibits certain discharges of storm water containing pollutants except in compliance with an NPDES permit (title 33 United States Code (USC), sections 1311 and 1342(p); CWA sections 301 and 402(p)). The U.S. Environmental Protection Agency (USEPA) promulgates federal regulations to implement the CWA's mandate to control pollutants in storm water runoff discharges (title 40 Code of Federal Regulations (CFR) parts 122, 123, and 124). Facilities that discharge storm water "associated with industrial activity" requiring a permit are listed by Standard Industrial Classification (SIC) Code in 40 CFR section 122.26(b)(14). Marina operations (SIC Code 4493) are classified as Water Transportation and require NPDES permit coverage.

The federal statutes and regulations require discharges to surface waters comprised of storm water associated with construction activity that disturb one acre or more of land (or are part of a larger common plan of development or sale that together disturbs one acre or more of land) to obtain coverage under an NPDES permit. Storm water discharges from construction activities authorized by the Marina General Permit are limited to projects that disturb less than one acre of land and are not part of larger common plan of development or sale. Examples of larger common development plans for which a separate construction activity permit is required include marina master plan implementation involving phased implementation in areas on or off the marina project site, such as supporting storage or parking areas, where each phase may disturb less than one acre of land.

To reduce or eliminate pollutants in storm water runoff, this NPDES permit must require "best practicable control technology currently available" (BPT) (33 U.S.C section 1314(b)(1)(B)) applicable to all pollutants; Best Conventional Pollutant Control Technology (BCT) for conventional pollutants (33 U.S.C. section 1314(b)(4)(A)), and Best Available Technology Economically Achievable (BAT) for toxic or non-conventional pollutants (33 U.S.C section 1314(b)(2)(A)). This NPDES permit must also include additional requirements necessary to implement applicable water quality standards.

Discharge of non-contact cooling water is not prohibited as heat from boat engines is not a significant pollutant with regard to Lake Tahoe.

II. FINDINGS. The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) finds:

A. Legal Authorities. This Marina General Permit is issued pursuant to section 402 of the CWA and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). This Marina General Permit shall serve as an NPDES permit for point source discharges of storm water from industrial and minor (less than one acre of land) construction activities associated with marina operation. This Marina General Permit also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).

Section 122.28 of title 40 of the Code of Federal Regulations (40 CFR 122.28) authorizes USEPA and approved states authorized under 40 CFR to issue general permits to regulate a point source category if the sources:

1. Involve the same or substantially similar types of operations;

2. Discharge the same type of waste;

3. Require the same type of effluent limitations or operating conditions;

4. Require similar monitoring; and

5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, USEPA granted the State of California, through the State Water Resources Control Board (State Water Board) and the nine regional water boards, the authority to issue general NPDES permits pursuant to 40 CFR parts 122 and 123. This Marina General Permit meets the criteria 1 through 5 listed above. Regulating many storm water discharges under one permit will greatly reduce the administrative burden associated with permitting individual storm water discharges.

B. Background and Rationale for Requirements. The Lahontan Water Board developed the requirements in this Marina General Permit based on: (1) the requirements of Order No. R6T-2011-0024, its predecessor permits and individual WDRs issued prior to NPDES requirements; (2) readily available information for several similar discharges; (3) the NPDES General Permit for Storm Water Discharges Associated with Industrial Activities (Order No. 2014-0057-DWQ); and (4) the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ), as amended. The Fact Sheet (Attachment F), which contains background information and rationale for the Marina General Permit requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through K are also incorporated into this Order.

C. Discharge Prohibitions, Required Findings, and Exemption. The Water Quality Control Plan for the Lahontan Region (Basin Plan) prohibits the discharges attributable to human activities of any waste or deleterious material to surface waters of the Lake Tahoe Basin, lands below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe, and to Stream Environment Zones (SEZs) in the Lake Tahoe HU. The Basin Plan also contains criteria, when satisfied, that allows the Lahontan Water Board or its Executive Officer to grant exemptions for such discharges associated with specified project types and activities on a case-by-case basis. The exemption criteria include findings that the discharge of waste will not affect beneficial uses, there is no reasonable alternative to the waste discharge, mitigation measures are incorporated to minimize adverse impact to water quality and beneficial uses, and SEZ and wetlands are restored in an amount at least 1.5 times the area disturbed.

D. Provisions and Requirements Implementing State Law. The effluent limitations for discharges to land treatment systems contained in section V of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

E. CWA Section 401 Water Quality Certification. If the U.S. Army Corps of Engineers requires the Discharger proposing to discharge fill or dredge material to comply with section 404 of the CWA, the Discharger must provide a complete application for 401 Water Quality Certification to the Lahontan Water Board in accordance with California Code of Regulations title 23, section 3856.

F. Notification of Interested Parties. The Lahontan Water Board has notified interested agencies and persons of its intent to prescribe NPDES/WDRs for storm water discharges from the operation and maintenance of the twelve California marinas on Lake Tahoe and has provided an opportunity to provide their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

G. Consideration of Public Comment. The Lahontan Water Board, in a public meeting, provided an opportunity for a public hearing, and considered all comments pertaining to the discharge. Details are provided in the Fact Sheet of this Order.

IT IS HEREBY ORDERED that all Dischargers indicating their intention to be regulated under the provisions of this Order, and all heirs, successors, or assigns, in order to meet the provisions contained in division 7 of the Water Code and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, must comply with the following requirements in this Order:

III. NOTIFICATION REQUIREMENTS

A. General Order Application

Discharges Previously Covered: Discharges and Dischargers previously covered under Order No. R6T-2011-0024 will be covered until **October 31, 2016**. All Dischargers covered under Order No. R6T-2011-0024 must reapply for coverage under this Marina General Permit by **September 30, 2016**. Coverage under this Marina General Permit will begin on **November 1, 2016** following receipt of the required application information unless you are informed of a delay or eligibility issue in writing from the Lahontan Water Board.

To obtain new or renewed authorization for discharges from marina operations and maintenance, the Discharger must meet the eligibility requirements specified in section III.C of the Marina General Permit and file with the Lahontan Water Board: (1) a complete and accurate Notice of Intent (NOI), (2) a revised Storm Water Pollution Prevention Plan (SWPPP) or a BMP Project Plan, (3) a revised Marina Pollution Prevention Plan (MPPP), (4) a revised Discharger Monitoring Plan (DMP), and (5) a revised Marina Surface Water Monitoring Plan (MSWMP). The NOI, SWPPP, MPPP, DMP, and MSWMP requirements are part of the Marina General Permit and must be certified as complying with this Order for each marina seeking reissued coverage under this Marina General Permit. The NOI, SWPPP, MPPP, DMP, and MSWMP, with any revisions needed to comply with this Marina General Permit, must be provided no later than **September 30, 2016**. The Discharger's Annual Fee, due on November 15th of each year, will serve as the filing fee.

B. General Order Coverage

1. Dischargers covered under this Marina General Permit must pay the Annual Fee when billed by the State Water Resources Control Board (State Water Board).

2. This Marina General Permit covers storm water discharges associated with marina operations and maintenance activities, including industrial activities and minor construction activities disturbing less than one acre of land. The Marina General Permit does not cover discharges associated with projects involving the discharge of dredge and/or fill materials to surface waters or land disturbance activities of one or more acres. Additional permits (e.g., CWA section 404 permit and section 401 Water Quality Certification, Lake Tahoe Construction General Permit) will likely be required for discharges from such projects.

3. All Dischargers must implement the applicable plans submitted with the NOI beginning **November 1, 2016**.

4. This Marina General Permit does not pre-empt or supersede the authority of other agencies to prohibit, restrict, or control storm water discharges to municipal separate storm sewer systems or other watercourses within their jurisdictions.

5. This Marina General Permit does not pre-empt or waive requirements of the CWA section 404 or section 10 of the Rivers and Harbors Act for the discharges of fill or dredged material regulated by the U.S. Army Corps of Engineers and does not constitute a waiver of Water Quality Certification under CWA section 401.

6. Supplemental information proposing new discharges or discharge locations different from the discharges and locations identified in their SWPPP and authorized in the Notice of Applicability (NOA) must be supplied in writing to the Lahontan Water Board 60 days prior to the scheduled discharge. If the Water Board determines the new discharges or locations are not a substantial change to the NOA, the Discharger will be notified to proceed and update their SWPPP. If the new proposed discharges or locations are determined to be a substantial change, or not within the original scope of the NOA, the Lahontan Water Board Executive Officer may re-issue a modified NOA, or the Discharger may be requested to provide a new NOI for this Marina General Permit or an application for a different general or individual permit.

C. Eligibility Criteria

1. Only the twelve marina facilities located on the California side of Lake Tahoe that were enrolled under the previous Marina General Permit (Order No. R6T-2011-0024) are eligible for coverage under this Marina General Permit. For purposes of this Marina General Permit, a Discharger is the legal owner of the marina (lands and/or facilities and infrastructure) or the legal owner's legally-designated operator or representative. No other Dischargers will be covered under this Marina General Permit.

For purposes of this Order, operation and maintenance of marina facilities may include construction or demolition activity, such as clearing, grading, grubbing or excavation, as long as it: (1) is performed on marina property, (2) disturbs less than one acre of land and (3) is consistent with section IV of this Order. Construction activity may include linear underground or overhead utility projects.

2. Upon receipt of a NOI, the Lahontan Water Board Executive Officer shall determine if the following conditions are satisfied:

a. For discharges to surface waters or the municipal separate storm sewer system (MS4), discharges are comprised of storm water (industrial and construction disturbing less than one acre) associated with the operation and maintenance of the marina facility.

b. Discharges do not include or originate from disturbance of lands classified as Stream Environment Zones as defined in the Basin Plan, unless the Lahontan Water Board grants an exemption to any applicable discharge prohibitions.

c. The Discharger has provided or certified a SWPPP or a BMP Project Plan (for construction storm water activities involving less than one acre of disturbance) that describes BMPs capable of reliably meeting all prescribed effluent limitations, prohibitions, discharge specifications, or other requirements of this Marina General Permit.

d. The Discharger has provided an MPPP that describes BMPs capable of minimizing discharges from vessels and marina operations to surface waters in the Lake Tahoe Hydrologic Unit.

e. The Discharger has provided a DMP which describes the methods and procedures by which the Discharger will comply with the Monitoring and Reporting Program (MRP) as described in Attachment E of this Marina General Permit.

f. Notwithstanding the provisions of this section, activities and/or projects that may result in discharges of waste to waters of the state may be brought to the Lahontan Water Board for consideration of adoption of an individual NPDES permit or waste discharge requirements when the Lahontan Water Board Executive Officer deems it desirable or necessary to do so.

D. Termination of Coverage

1. When individual WDRs are issued to a Discharger otherwise subject to this Marina General Permit, the applicability of this Marina General Permit to the Discharger is automatically terminated on the effective date of the individual WDRs.

2. Dischargers covered under Order No. R6T-2011-0024 will continue to be covered under Order No. R6T-2011-0024 until **October 31, 2016**, when Board Order No. R6T-2011-0024 is revoked. The Dischargers will receive a NOA for this Order after they have provided the Lahontan Water Board a complete and accurate NOI.

3. Coverage under this Marina General Permit may be terminated by the Lahontan Water Board after a written request by the Discharger, for reasons including but not limited to a change in ownership. The Discharger must complete and provide the Request for Permit Revocation Form (Attachment C) and any reports required by this Marina General Permit to the Lahontan Water Board. Approval of a Request for Permit Revocation does not relieve the Discharger from paying any applicable outstanding invoices or fees. The Lahontan Water Board may terminate any marina's coverage under this Marina General Permit for failure to comply with the terms of this Marina General Permit.

4. Coverage must continue until terminated in writing by the Lahontan Water Board Executive Officer or his or her designee. If revocation of coverage under this Marina General Permit is denied, the Lahontan Water Board Executive Officer or his or her designee must return the Request for Permit Revocation with the reasons for denial provided in a written notification.

IV. DISCHARGE PROHIBITIONS

A. Unless otherwise authorized by a separate NPDES permit, discharges of waste to surface waters from the following activities are prohibited: boat washing for control of AIS or other purposes; pressure washing; removing contaminated bilge or ballast water from boats.

B. The discharge must not cause pollution as defined in Water Code section 13050 or threatened pollution.

C. Storm water discharges regulated by the Marina General Permit must not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR part 117 and/or 40 CFR part 302.

D. The removal of vegetation or disturbance of ground surface conditions between October 15 of any year and May 1 of the following year is prohibited. Where it can be shown that granting a variance would not cause or contribute to the degradation of water quality, a variance to the dates stated above may be granted in writing by the Executive Officer.

E. Discharge of uncured concrete or grout to surface waters is prohibited. (This prohibition does not apply to poured-in-place footings provided the work is contained in a water-tight caisson (sealed underwater structure) and there is no discharge of uncured concrete or grout to surface waters. Such discharges may be subject to CWA sections 404 and/or 401.)

F. Surplus or waste earthen materials must not be placed in surface water drainage courses, within the 100-year flood plain of any surface water, below the high water line of Lake Tahoe, or in such a manner as to allow the uncontrolled discharge of such materials to adjacent undisturbed land or to any surface water drainage course.

G. Section 4.1 of the Basin Plan contains region-wide prohibitions against the discharge of wastes to surface waters throughout the Lahontan Region. Additionally, section 5.2 of the Basin Plan contains Lake Tahoe HU-specific discharge prohibitions. However, these prohibitions (Basin Plan sections 4.1 and 5.2) do not apply to storm water when wastes in the discharge are controlled through the application of management practices or other means and the discharge does not cause a violation of water quality objectives. Any discharge proposed in an area where a discharge prohibition may apply must be evaluated on an individual basis to determine if the discharge would violate the prohibition. In some instances, exemptions may be granted on a case-by-case basis by resolution of the Lahontan Water Board, or by the Executive Officer, in accordance with Lahontan Water Board Policy.

Section 4.1 of the Basin Plan contains the following region-wide prohibitions:

1. The discharge of waste[1] that causes violation of any narrative or numeric water quality objective contained in the Basin Plan is prohibited.

2. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste that causes further degradation or pollution is prohibited.

3. The discharge of waste that could affect the quality of waters of the state that is not authorized by the State or Regional Board through waste discharge requirements, waiver of waste discharge requirements, NPDES permit, cease and desist order, certification of water quality compliance pursuant to Clean Water Act section 401, or other appropriate regulatory mechanism, is prohibited.

4. The discharge of sewage, garbage, or other solid wastes into surface waters of the Region is prohibited.

5. The discharge of pesticides to surface or ground waters is prohibited.

Section 5.2 of the Basin Plan contains the following prohibitions applicable in the Lake Tahoe HU:

6. The discharge, attributable to human activities, of any waste or deleterious material to surface waters of the Lake Tahoe Hydrologic Unit is prohibited.

7. The discharge, attributable to human activities, of any waste or deleterious material to land below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited.

8. The discharge or threatened discharge, attributable to new pier construction, of wastes to significant spawning habitats or to areas immediately offshore of important stream inlets in Lake Tahoe is prohibited.

9. The discharge, attributable to human activities, of any waste or deleterious material to Stream Environment Zones (SEZs) in the Lake Tahoe Hydrologic Unit is prohibited.

V. AUTHORIZED NON-STORM WATER DISCHARGES

A. Where not prohibited, non-storm water discharges to surface waters, lands, or land-based treatment systems, must comply with effluent limitations for the discharge.

B. Dischargers must control all non-storm water discharges through implementation of BMPs that effectively reduce or eliminate pollutants in the discharge.

[1] "Waste" is defined to include any waste or deleterious material including, but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material) and any other waste as defined in the section 13050(d) of the CWC.

C. Non-storm water discharges and the BMPs appropriate for their control must be described in the SWPPP and implemented for all discharges.

D. Wherever feasible, alternatives to non-storm water discharges to surface waters, such as land disposal, must be implemented.

E. Discharge of chlorinated water from potable water systems may be toxic to aquatic life and must be discharged to lands or land-based treatment systems only.

VI. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Storm water runoff or authorized non-storm water discharges discharged to land, land treatment systems, surface waters, or to municipal or other separate storm sewer systems, must not contain constituents in excess of the applicable concentrations as specified in Table 3 below.

Table 3. Effluent Limitations for Discharges of Storm Water and Dewatering Wastes

Parameter	Units	Maximum Concentration Effluent Limitations for Discharge to:		
		Reporting Level	Land or Land Treatment Systems[1]	Surface Waters[2] and Storm Sewer Systems
Total Nitrogen (as N)	mg/L	0.02	5	0.5
Total Phosphorus (as P)	mg/L	0.008	1	0.1
Total Iron	mg/L	0.005	4	0.5
Turbidity	NTU	0.5	200	20
Grease and Oil	mg/L	1.0	40	2
pH	SU			see footnote 3

1. With no discharge to surface water
2. Or collection/treatment systems that discharge to surface waters
3. pH must be within the range of 7.0 – 8.4 standard pH units.

2. In the event that site conditions do not provide opportunities to infiltrate the runoff volume generated by a 20-year, 1-hour storm, a Discharger must either meet the numeric effluent limits in Table 3, or document coordination with the local municipality or state highway department receiving the discharge(s) to demonstrate that shared stormwater treatment facilities treating private property discharges and public right-of-way stormwater are sufficient to meet the municipality's average annual fine sediment and nutrient load reduction requirements, as set forth in the Lake Tahoe Total Maximum Daily Load (TMDL) and implementing regulations. Such coordination must be incorporated into the municipality's or state highway department's Pollutant Load Reduction Plan after an opportunity for public input and approval by the Executive Officer.

3. If constituent concentrations of waters discharged onto the marina property exceed the numerical limitations specified, above, there must be no increase in the constituent concentrations in the waters that are discharged from the marina property.

4. Surface flows of storm water or authorized non-storm water discharges to surface waters or municipal separate storm sewer systems must not contain the following:

   a. Substances in concentrations that are toxic to, or that produce detrimental physiological responses in, human, plant, or animal life, or

   b. Coliform organisms attributed to anthropogenic sources, including human or animal sources, such as pets.

B. BMP Performance Benchmark Levels for Storm Water Associated With Industrial Activity

Surface flows generated from the marina property and discharged to surface waters with concentrations of pollutants above applicable USEPA Benchmarks must comply with the following requirements. If the concentration of a parameter in storm water discharges to surface water exceeds a benchmark level the Discharger must initiate a review of the BMPs at the site, take corrective actions, and repeat the quarterly monitoring during the next quarter in which the marina is in service; these actions must be repeated until the average concentration of the four most-recent samples from the quarterly sampling is less than the benchmark. For those marinas that are not in service during a full quarter or more of the year , the average of four samples taken over a two-year period (eight quarters) when the marina is in service is acceptable. Failure to implement corrective actions and monitoring requirements is a violation of this Marina General Permit. See Attachment E, section IV.A.1.d.

Table 4. Benchmarks Applicable to Marina Facilities

Parameter	Units	Reporting Level	USEPA Benchmark Levels
Total Suspended Solids (TSS)	mg/L	1.0	100
Specific Conductance	umhos/cm	1.0	200
Aluminum (total recoverable)	mg/L	0.0005	0.75
Lead (total recoverable)	mg/L	0.0005	Hardness Dependent
Zinc (total recoverable)	mg/L	0.0005	Hardness Dependent
Copper (total recoverable)	mg/L	0.002	Hardness Dependent

Table 5. Hardness Dependent Benchmarks Applicable To Marina Facilities[1]

Hardness (mg/L)	Lead (mg/L)	Copper (mg/L)	Zinc (mg/L)

0-25	0.014	0.0038	0.04
25-50	0.023	0.0056	0.05
50-75	0.045	0.0090	0.08
75-100	0.069	0.0123	0.11
100-125	0.095	0.0156	0.13
125-150	0.122	0.0189	0.16
150-175	0.151	0.0221	0.18
175-200	0.182	0.0253	0.20
200-225	0.213	0.0285	0.23
225-250	0.246	0.0316	0.25
250+	0.262	0.0332	0.26

[1] See Attachment E, Appendix I, "Calculating Hardness in Receiving Water for Hardness Dependent Metals," for methodology.

VII. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The following numerical and/or narrative water quality objectives apply to all surface waters, including wetlands, in the Lahontan Region. The discharge of waste to surface waters must not cause a violation of the following:

1. The discharge must not cause a violation of any applicable water quality standard for receiving water adopted by the Lahontan Water Board or State Water Board as required by the CWA and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA or amendments thereto, the Lahontan Water Board may revise and modify this Order in accordance with such more stringent standards.

2. Storm water discharges to any surface or ground water must not adversely impact human health or the environment.

3. Storm water and other waste discharges must not cause the receiving water quality objectives to be exceeded for the specified constituents listed in Table 6 and Attachment L.

Table 6. Water Quality Objectives for Lake Tahoe

Surface Waters	Objective (mg/L except as noted) [1,2]					
	TDS	Cl	SO_4	B	N	P
Lake Tahoe	60	3.0	1.0	0.01	0.15	0.008
	65	4.0	2.0	-	-	-

[1] Annual average value/90th percentile value
[2] Objectives are as mg/L and are defined as follows: B = Boron; Cl = Chloride; SO_4 = Sulfate; N = Nitrogen, Total; P = Phosphorus, Total; TDS = Total Dissolved Solids (Total Filterable Residues).

4. The discharge of storm water or other waste discharges must not cause a violation of the following water quality objectives:

a. **Algal Growth Potential.** For Lake Tahoe, the mean algal growth potential at any point in the Lake must not be greater than twice the mean annual algal growth potential at the limnetic reference station (located in the north central portion of Lake Tahoe).

b. **Ammonia.** The neutral, unionized ammonia species (NH_3) is highly toxic to freshwater fish. The fraction of toxic NH_3 to total ammonia species ($NH_4^+ + NH_3$) is a function of temperature and pH. Basin Plan Tables 3-1 to 3-4 were derived from USEPA ammonia criteria for freshwater. Ammonia concentrations must not exceed the values listed for the corresponding conditions in these tables. For temperature and pH values not explicitly in the tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas developed by the USEPA.

c. **Bacteria, Coliform.** Waters must not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period must not exceed a log mean of 20 MPN/100 mL, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40 MPN/100 mL. The USEPA recommends that the log mean should ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. [Reference: Ambient Water Quality Criteria for Bacteria – 1986, EPA 440/5-84-002, page 2.] However, a log mean concentration exceeding 20 MPN/100 mL for any 30-day period must indicate violation of this objective even if fewer than five samples were collected.

d. **Biological Indicators.** For Lake Tahoe, algal productivity and the biomass of phytoplankton, zooplankton, and periphyton must not be increased beyond the levels recorded in 1967 – 1971, based on statistical comparison of seasonal and annual means.

e. **Biostimulatory Substances.** Waters must 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.

f. **Chemical Constituents.** Waters designated as MUN, such as Lake Tahoe, must 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 by the more restrictive of the CCR, title 22, division 4, chapter 15, or 40 CFR part 141.

g. **Chlorine, Total Residual.** For the protection of aquatic life, total chlorine residual must not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values must be based on daily measurements taken within a 6-month period.

h. **Clarity.** For Lake Tahoe, the vertical extincti on coefficient must 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 must not exceed 3 NTU. In addition, turbidity must not exceed 1 NTU in shallow waters not directly influenced by stream discharges.

i. **Color.** Waters must be free of coloration that causes nuisance or adversely affects the water for beneficial uses.

j. **Conductivity, Electrical.** In Lake Tahoe, the mean annual electrical conductivity must not exceed 95 µmhos/cm at 25°C at any location in the Lake.

k. **Dissolved Oxygen.** The dissolved oxygen concentration, as percent saturation, must not be depressed by more than 10 percent, nor must the minimum dissolved oxygen concentration be less than 80 percent of saturation. The minimum dissolved oxygen concentration must not be less than 7.0 mg/L for Lake Tahoe, or that specified in Table 3-6 of the Basin Plan for other water bodies.

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

m. **Oil and Grease.** Waters must 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 such as Lake Tahoe, the concentration of oils, greases, or other film or coat generating substances must not be altered.

n. **Nondegradation of Aquatic Communities and Populations.** All waters must be free of 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 waters must be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.

o. **pH.** In fresh waters with designated beneficial uses of COLD or WARM, changes in normal ambient pH levels shall not exceed 0.5 pH units. For all other waters of the Lahontan Region, the pH shall not be depressed below 6.5 nor raised above 8.5. In Lake Tahoe, the pH must not be depressed below 7.0 nor raised above

8.4. Changes in normal ambient pH levels in Lake Tahoe must not exceed 0.5 pH units.

p. Plankton Count. For Lake Tahoe, the mean seasonal concentration of plankton organisms must not be greater than 100 per ml and the maximum concentration must not be greater than 500 per ml at any point in the Lake.

q. Radioactivity. Radionuclides must not be present in concentrations which are deleterious to human, plant, animal, or aquatic life or 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 must not contain concentrations of radionuclides in excess of the limits specified by the more restrictive of the CCR, title 22, division 4, chapter 15, or 40 CFR part 141.

r. Suspended Sediment. The suspended sediment load and suspended sediment discharge rate of surface waters must not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses. The suspended sediment concentration must not exceed a 90^{th} percentile value of 60 mg/L in tributaries to Lake Tahoe.

s. Settleable Materials. Waters must 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 such as Lake Tahoe, the concentration of settleable materials must not be raised by more than 0.1 ml/L.

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

u. Taste and Odor. Waters must 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 such as Lake Tahoe, the taste and odor must not be altered.

v. Temperature. The natural receiving water temperature of all waters must not be altered unless it can be demonstrated to the satisfaction of the Lahontan Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses. For waters designated COLD such as Lake Tahoe, the temperature must not be altered.

Temperature objectives for COLD interstate waters and WARM interstate waters are as specified in the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* including any revisions. This plan is summarized in Chapter 6 (Plans and Policies) of the Basin Plan and is included Attachment B of the Basin Plan.

w. Toxicity. All waters must 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. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Lahontan Water Board.

The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, must 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. 1998)*.

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

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

B. Ground Water Limitations

The Discharge of storm water and other waste discharges from the operation and maintenance of marinas to ground water, including by way of land-based treatment systems, must not cause a violation of the following receiving water objectives for ground water:

1. **Bacteria, Coliform.** In ground waters designated as MUN, the median concentration of coliform organisms over any seven-day period must be less than 1.1/100 milliliters.

2. **Chemical Constituents.** Ground waters designated as MUN must 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 the following provisions of title 22 of the California Code of Regulations which are incorporated by reference: Table 64431-A of section 64431 (Inorganic Chemicals), Table 64431-B of section 64431 (Fluoride), Table 64444-A of section 64444 (Organic Chemicals), Table 64449-A of section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of section 64449 (Secondary Maximum Contaminant Levels-Ranges).

Waters designated as AGR must not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

Ground water must not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

3. **Radioactivity.** Ground waters designated as MUN must not contain concentrations of radionuclides in excess of the limits specified in Table 4 of section 64443 of title 22 of the California Code of Regulations which is incorporated by reference.

4. **Taste and Odor.** Ground waters must not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground waters designated as MUN, at a minimum, concentrations must not exceed adopted secondary maximum contaminant levels specified in Table 64449-A of section 64449 (Secondary Maximum Contaminant Levels-Consumer Acceptance Limits), and Table 64449-B of section 64449 (Secondary Maximum Contaminant Levels-Ranges) of title 22 of the California Code of Regulations which is incorporated by reference.

VIII. PROVISIONS

A. Standard Provisions

1. The Discharger must comply with all Standard Provisions included in Attachment D of this Order.

2. The conditions of the Marina General Permit do not exempt the Discharger from compliance with any other laws, regulations, or ordinances which may be applicable and leave unaffected any further restraints on those facilities which may be contained in other statutes or required by other regulatory agencies.

3. All Dischargers must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to drainage systems or other water courses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES General Permits issued to local agencies by the Lahontan Water Board.

4. Surface waters as used in this Order include, but are not limited to, wetlands and streams, either perennial or ephemeral, which flow in natural or artificial watercourses, and natural lakes and artificial impoundments of waters within the State of California.

5. Ground waters as used in this Order include, but are not limited to, all subsurface waters being above atmospheric pressure, and the capillary fringe of these waters.

6. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor guarantee the Discharger a capacity right in the receiving waters.

7. All discharges authorized by this Order must be consistent with the terms and conditions of this Order. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this Order must constitute a violation of the terms and conditions of this Order.

8. The Discharger must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

9. The Water Code and the CWA provide for civil liability and criminal penalties for violations of the permit limits including imposition of civil liability or referral to the Attorney General.

10. A copy of the NPDES permit must be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Attachments A through K are incorporated into and made part of this Marina General Permit. Provisions of the permit are severable. If any provision of the requirements is found invalid, the remainder of the requirements must not be affected.

12. Pursuant to Water Code section 13263(g), no discharge of waste into the waters of the state, whether or not the discharge is made pursuant to waste discharge requirements, creates a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.

13. 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 treatment equipment;

b. accidents from any cause;

c. overflows from the system; or

d. other circumstances such as acts of nature,

Then the Discharger must notify the Lahontan Water Board Executive Officer as soon as the Discharger or the Discharger's agents have knowledge of any discharge in violation of the Marina General Permit, or any emergency discharge or other discharge of waste to the receiving water, in accordance with the notification requirements in the Standard Provisions for NPDES Permits, included in this Order as Attachment D, section V.E. Pursuant to section 13383 of the Water Code, a written notification of the adverse condition must be submitted to the Lahontan Water Board within one week of occurrence. The written notification must identify the

adverse conditions, describe the actions necessary to remedy the condition and/or the actions implemented to abate the problem from continuing, and specify a timetable, subject to the modifications of the Lahontan Water Board, for remedial actions.

14. Pursuant to section 13260(c) of the Water Code, the Discharger must notify the Lahontan Water Board of any proposed material change in the character, location, volume or character of pollutants discharged or introduced into the treatment system from the conditions existing at the time of adoption of this NPDES permit or the filing of documents to apply for coverage under this Marina General Permit. The Discharger must file a report with the Lahontan Water Board at least 30 days before making any proposed material change. This must include, but not be limited to, all significant new soil disturbances, all proposed expansion of development, any increase in impervious surface coverage, or any change in drainage characteristics at the project site.

15. Adequate notice must include information on the quality and quantity of effluent discharged into the receiving waters, as well as any anticipated impact of the change on the quantity or quality of the effluent to be discharged from the treatment facility. A substantial change in volume is considered an increase in excess of 10 percent of the mean daily flow rate.

16. Pursuant to Water Code section 13260, subdivision (c), any change in the ownership and/or operation of property subject to the NPDES permit must be reported to the Lahontan Water Board. Appropriate legal documentation from the County Recorder must be provided by the Discharger covered under this Order within 5 days of completing a property ownership change. Notification of applicable NPDES permit requirements in this Marina General Permit must be furnished in writing to the new owners and/or operators, and a copy of such notification must be sent to the Lahontan Water Board.

17. If a Discharger becomes aware that any information submitted to the Lahontan Water Board is incorrect, the Discharger must immediately notify the Lahontan Water Board, in writing, and correct that information.

18. If the Discharger becomes aware that their NPDES permit is no longer needed (because the discharge will cease or property ownership will change, for example) the Discharger must notify the Lahontan Water Board in writing and request that the permit coverage be terminated by using the Request for Permit Revocation form in Attachment C.

19. The Discharger must fully comply with the documents and plans submitted pursuant to section III.A of this Order and at all times fully comply with engineering plans, specifications, and technical reports submitted with the above plans or with the NOI.

20. The Lahontan Water Board may require Dischargers to revise the documents and plans submitted pursuant to section III.A to achieve compliance with this Marina General Permit. Dischargers must implement these revisions in accordance with a schedule provided by the Lahontan Water Board.

21. The owners of property subject to the Marina General Permit and their assigned operators have a continuing responsibility for ensuring compliance with the Marina General Permit, including day-to-day operations, maintenance and monitoring. The Discharger identified on the NOI is liable for any violations of the Marina General Permit. Any change in the ownership or operation of the property subject to the Marina General Permit must be reported to the Lahontan Water Board by submitting a Request for Permit Revocation (Attachment C).

22. The Marina General Permit is effective on the date shown in Table 2, and will expire five years after the effective date.

23. Board Order No. R6T-2011-0024, and any associated coverage thereunder, is revoked as of **October 31, 2016**, except for enforcement purposes.

B. Monitoring and Reporting Program (MRP) Requirements

Pursuant to Water Code section 13267 and/or section 13383, the Discharger must comply with the MRP and future revisions thereto, as specified in Attachment E of this Order, and any additional monitoring requirements as specified by the Lahontan Water Board Executive Officer.

C. Special Provisions

1. Reopener Provisions

a. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, the Lahontan Water Board may revise and modify this Order in accordance with such more stringent standards.

b. The Lahontan Water Board may reopen this Order to establish new conditions or effluent limitations should monitoring data, toxicity-testing data, or other new information indicate that a constituent is discharged at a level that will do any of the following:

i. Cause, have reasonable potential to cause, or contribute to an in-stream excursion above any water quality criteria or objective, or

ii. Cause, have reasonable potential to cause, or contribute to a violation of any narrative water quality objective from the Basin Plan.

c. The Lahontan Water Board may reopen this Order to reflect any site-specific objectives established for the waterbody or changes to beneficial uses for the waterbody resulting from a use attainability analysis.

2. Best Management Practices and Pollution Prevention

Dischargers must develop and implement a SWPPP and MPPP. The SWPPP must clearly detail the actions needed to implement and monitor BMPs for the control of pollutants in storm water runoff and to minimize the potential for discharges from marina operations. These BMPs must be described fully in the Discharger's SWPPP and MPPP, and will include at a minimum the applicable BMPs and control measures described in Attachments G and H of this Order.

a. Storm Water Pollution Prevention Plan

i. Specific requirements for the SWPPP are described in Attachment G. The Dischargers must revise and update their previous SWPPP if necessary, and certify the requirements specified in this section and Attachment G are met. The SWPPP must be developed by a Qualified Industrial SWPPP Practitioner (QISP) as defined in section VIII.C.3.a and Appendix A of this Marina General Permit. The updated NOI and revised SWPPP, MPPP, DMP, and MSWMP must be submitted no later than **September 30, 2016**. Following approval of the SWPPP required by September 30, 2016, subsequent revisions to the SWPPP and/or MPPP may be required to be provided for Water Board approval if any of the following conditions occur:

a) An unauthorized release or discharge (e.g., spill, leak, or discharge of non-storm water not authorized by this Order) occurs at the marina.

b) A discharge violates numeric effluent limits in Table 3.

c) A required control measure was never installed, was installed incorrectly or was not being properly operated or maintained.

d) Whenever a visual inspection indicates evidence of storm water pollution (e.g., color, odor, floating solids, settled solids, suspended solids, foam).

e) Changes in design, operation, or maintenance at the marina.

f) The average of benchmark samples exceeds the applicable benchmark level in Table 4. If less than four benchmark samples have been taken, but the results are such that an exceedance is certain, this is considered a benchmark exceedance, triggering this review.

ii. The SWPPP must identify and describe in detail storm water pollution prevention measures that will be constructed and/or implemented at the Marina. The proposed pollution control measures must be adequate to reduce pollutants in storm water discharges associated with the operation and maintenance of the marina, such that storm water discharges will comply with the Discharge Prohibitions (section IV), Authorized Non-Storm Water Discharges (section V), Effluent Limitations and Discharge Specifications (section VI), will not cause or contribute to a violation of the Receiving Water

Limitations (section VII), and will meet the applicable BMP design specifications described in section VIII.C.3.b. of this Order.

iii. The SWPPP must accomplish the following:

a) Identify all potential pollutants and their sources.

b) Identify all non-storm water discharges that are not required to be covered under a separate Lahontan Water Board permit and describe all efforts to eliminate non-storm water discharges. Where non-storm water discharges cannot be eliminated, describe all efforts to control or treat non-storm water discharges such that they do not cause or contribute to a violation of Discharge Prohibitions (section IV), Authorized Non-Storm Water Discharges (section V), Effluent Limitations (section VI) or cause or contribute to violations of Receiving Water Limitations (section VII) of this Order.

c) Identify appropriate BMPs or other control measures necessary to reduce or eliminate pollutants in storm water discharges and authorized non storm water discharges, and describe how they will be constructed and maintained. Ensure that the combination of BMPs and control measures are effective and result in attainment of the BPT/BCT/BAT standard.

d) Identify a QISP to ensure that all BMPs required by this General Permit are implemented by a QISP by **November 1, 2016**. A QISP is a person (either the Discharger or a person designated by the Discharger) who has completed a State Water Board-sponsored or approved QISP training course, and has registered as a QISP via SMARTS. Upon completed registration, the State Water Board will issue a QISP identification number.

e) QISP Responsibilities: Effective **November 1, 2016**, the QISP is responsible for overseeing the implementation of the SWPPP, performing the Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation), assisting in the preparation of Annual Reports, and training appropriate marina staff. The QISP is responsible for assisting the Discharger in complying with this Marina General Permit through the proper implementation, management, and monitoring of the SWPPP elements and other General Permit requirements.

f) Provide a plan for how the QISP will oversee and manage implementation, management and monitoring of the SWPPP and Marina General Permit requirements, including a communication plan that allows the QISP to actively and effectively manage trained personnel conducting the SWPPP activities when the QISP is unable to be at the site.

g) Maintain written records documenting the QISP's plan implementation and effectiveness.

h) Document the QISP annual training on storm water pollution control topics to the SWPPP Team. Training records must include the date, a description of the topics covered by training, copies of any training materials, the trainer's name, and a list of the training participants with printed names and signatures.

i) Identify procedures to ensure that all required inspections, maintenance, and repair activities are consistent with the requirements of this Marina General Permit. These procedures shall include identification of the SWPPP Team and the training required to perform inspections, maintenance, repair, and record keeping. Any QISP communication plan and all records must be retained in accordance with the record-keeping requirements of this Marina General Permit and provided with the SWPPP.

j) Identify any proposed construction activities involving land disturbance of less than one acre and the specific storm water BMPs that would be implemented to minimize discharge of waste.

iv. To demonstrate compliance with the requirements of this Marina General Permit, the Discharger must:

a) Include information in the SWPPP that supports the selection, design, sizing, location and maintenance of storm water BMPs.

b) Conduct and document inspections and preventative and corrective actions as required in the MRP (Attachment E). The inspection requirements include weekly print-outs of the National Weather Station predictions, and daily record keeping of a rain gauge located at the marina facility.

c) Conduct storm water monitoring and maintain records of analytical results as required in Attachment E.

d) Include in the SWPPP documentation of training provided to the Storm Water Pollution Prevention Team. Documentation must include a signed sworn statement of fact from trainers and trainees.

v. The Discharger must make the SWPPP, inspection and maintenance logs, and monitoring results, available at the marina during operating hours and upon request by a federal, state, or municipal inspector.

vi. Collected screenings and other solids removed from liquid wastes must be disposed of in a manner that is consistent with chapter 15, division 2, title 27 of the California Code of Regulations.

b. Storm Water Control Measures and BMPs

i. Storm water BMPs must be designed to minimize the volume and pollutant loading in storm water discharged to land and/or surface water. Dischargers must maintain storm water BMPs to treat, contain and/or infiltrate runoff from impervious surfaces at the marina.

ii. The Discharger must implement measures to prevent non-storm water discharges from contributing pollutants to storm water runoff.

iii. All run-on to the property from offsite drainage, to the maximum extent possible, must be directed away from sources of pollutants or disturbed areas and discharged only in compliance with the effluent limitations in this Marina General Permit.

iv. Minimum BMPs include: (1) good housekeeping, (2) preventive maintenance, (3) spill response, (4) material handling/waste management, (5) employee training program, (6) record keeping and quality assurance, (7) erosion/sediment control, and (8) visual inspections of the facility.

v. Where appropriate the Discharger is required to implement BMPs that eliminate, to the maximum extent practicable, pollutant discharges associated with fueling activities, bilge and sewage pump-out activities, boat washing, and sunken vessels that occur at the marina.

vi. Prior to any disturbance of existing soil conditions, the Discharger is required to install temporary siltation control facilities to prevent transport of eroded earthen materials and other wastes off the property.

vii. All areas subject to unauthorized vehicle use are to be adequately protected from use by installation of barriers and signs.

viii. Storm water runoff collection, pretreatment and/or infiltration disposal facilities are to be designed, installed and maintained to preclude a discharge from at least a 20-year, 1-hour design storm (approximately 1 inch of rainfall) from all impervious surfaces.

ix. Storm water runoff in excess of the design storm is to be discharged only to a storm drain or stabilized drainage, and is required to meet the storm water effluent limitations for discharges to surface water.

x. If site conditions did not allow for adequate onsite disposal, all site runoff is to be treated to meet the storm water effluent limitations and the receiving water limitations.

xi. Storm water runoff handling and disposal facilities are to be cleaned and renovated annually.

xii. At no time is waste earthen material to be placed in the surface drainage courses or in such a manner as to allow the discharge of such materials to adjacent undisturbed land or to any surface water drainage course.

xiii. The Discharger is required to immediately clean up and transport to a legal site any spilled petroleum products to the maximum extent practicable.

xiv. Snow storage and disposal is to be separated from surface waters and contained to minimize surface runoff.

xv. The Discharger must implement any applicable non-structural and structural BMPs identified in the SWPPP requirements specified in Attachment G.

xvi. The Discharger must avoid the release of harmful cleaners and solvents to surface waters, and boat cleaning operations are to be performed on land wherever feasible. Detergents containing phosphorus, ammonia, sodium hypochlorite, solvents, petroleum distillates, and cleaning compounds are discouraged. Detergents are not to contact surface waters.

xvii. Work areas for boat repair are to be clearly marked. Hulls covered with bottom paint are not to be scraped underwater. All wastes associated with hull maintenance and cleaning (sanding, debris, etc.) are to be collected and disposed of properly. Vacuuming is the preferred method of collecting these wastes except when algae or oil is being removed from a hull with a scrub brush and water only; algae or oil removal with any type of detergent, algaecide, or solvent is not allowed, except when done over a boat wash area where all wastes are collected and disposed to the sanitary sewer system or other authorized waste hauler. Dry or no-runoff cleaning processes done out of the water and that use nontoxic and non-detergent cleaning liquids with absorbent towels to remove algae and oil are allowed.

xviii. The Discharger is to make available clearly labeled receptacles for the disposal of waste oil, waste gasoline, used antifreeze, and waste diesel.

xix. The Discharger must implement BMPs to prevent or reduce the amount of petroleum hydrocarbons entering the surface waters. BMPs to control discharges of fuel are suggested in Attachment I.

xx. Dischargers are to minimize and prevent the improper disposal of sanitary wastes, including the discharge of marine heads directly to surface waters. To prevent illicit sewage discharges from boats, Dischargers must maintain sewage pumpout facilities at their marina, as follows. Fixed-point sewage pumpout facilities are required at marinas that: (1) leased 25 percent or more of their slips to cruisers, houseboats, and other watercraft equipped with portable heads, toilets or holding tanks; and /or (2) accommodated 100 boats with holding tanks. Marinas that operate as small boat harbors and for the most part accommodated boats under 26 feet in length are not required to have fixed-point pumpout. Instead, these marinas are to be equipped with

portable pumpout units or similar facilities for the dumping of portable toilet waste. BMPs suggested to control sewage discharges to surface waters are provided in Attachment I.

c. **Storm Water BMPs for Construction Projects at Marinas that Disturb Less than One Acre of Land** are described in Appendix I to Attachment G—Storm Water Pollution Prevention Plan.

d. **Marina Pollution Prevention Plan (MPPP).** The Discharger must provide to the Lahontan Water Board by **September 30, 2016**, a MPPP as specified in Attachment H. The MPPP must be implemented on the effective date of this Order, with any changes required by the Executive Officer. Requirements of the MPPP may overlap requirements of the SWPPP. Where requirements of the MPPP and the SWPPP overlap, the Discharger may incorporate requirements by reference to either the SWPPP or the MPPP.

IX. COMPLIANCE DETERMINATION

A. General

Noncompliance with any of the requirements of the Marina General Permit constitutes a violation of the CWA and/or the Water Code. Failure to take any required corrective actions also constitutes an independent, additional violation of the Marina General Permit and the CWA and/or the Water Code. As such, any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying noncompliance. However, where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided the Discharger takes the required corrective action within the applicable deadlines established in sections III and IV of Attachment E, and complies with the applicable recordkeeping and reporting requirements necessary to document such action. Compliance with inspection and employee training requirements specified in Attachments E and G of this Marina General Permit will be based upon documentation including the required inspection and maintenance logs and training records. Compliance with the effluent limitations contained in section VI of this Marina General Permit will be determined as specified in section IX.B., below, and section V.E. of Attachment E.

B. Compliance with Effluent Limitations

1. Multiple Sample Data

When determining compliance with the maximum concentration effluent limitations of this Order and more than one sample result is available on a calendar day, the Discharger may compute the arithmetic mean of the daily sample data for the comparison with the maximum concentration effluent limit unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger may compute the

median in place of the arithmetic mean for the comparison in accordance with the following procedure:

a) The data set must be ranked from low to high, ranking the reported ND determinations the lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

b) The median value of the data set must be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value must be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

2. Maximum Concentration Effluent Limitation

If the arithmetic mean of the sample data for a calendar day (or when applicable, the median determined by section VIII.B, above) for multiple sample data exceeds the maximum concentration for discharge for a given parameter, the Discharger will be in noncompliance for that parameter for that one day only within the reporting period. For any single calendar day during which no sample is taken, no compliance determination with regard to effluent limitations can be made for that calendar day.

Samples must be representative of the volume and quality of runoff from the site. Sample collection must not be manipulated in such a way as to skew the maximum concentration effluent value. However, the Discharger must provide monitoring data to indicate estimates of the proportional area or flow that each discharge point from the site represents when reporting the data.

ATTACHMENT A – ACRONYMS AND DEFINITIONS

Aquatic Invasive Species (AIS)
A nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural or recreational activities dependent on such waters (Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) 1990).

Anticipated Rain Event
An anticipated rain event is a weather pattern that is forecasted by the National Weather Service to have a 50 percent or greater probability of producing precipitation as rain in the project area and that is separated by at least seven days from the previous weather pattern that produced rain (i.e., separate weather systems).

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Best Management Practices (BMPs)
Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States.

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic Pollutants
Substances that are known to cause cancer in living organisms.

Construction Site
The location of the construction activity, including easements and other construction areas not under the Discharger's ownership or control.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day. In any case, the method of determination must be specified together with complete descriptions of the daily sampling period(s) composited.

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the Reporting Level, but greater than or equal to the laboratory's Method Detection Limit.

Emergency
A sudden, unexpected occurrence involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, essential public services, or the environment.

Erosion
The process, by which soil particles are detached and transported by the actions of wind, water, or gravity.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the Minimum Level value.

Ground water
Includes, but is not limited to, all subsurface water being above atmospheric pressure and the capillary fringe of such water.

Inland Surface Waters
All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

In Service
A marina is in service if there are any marina operations or maintenance activities occurring with potential to contribute industrial pollutants to storm water treatment systems. Such activities include, but are not limited to: fueling, construction activity, and boat maintenance. Snow removal for the purposes of maintaining access to non-industrial facilities (e.g., restaurant or office) is not considered "in service" activity.

(Instantaneous) Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Low-Threat Discharges
Those discharges listed in Table 4.1-1 of the Basin Plan.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (*n*) is odd, then the median = $X_{(n+1)/2}$. If *n* is even, then the median = ($X_{n/2}$ + $X_{(n/2)+1}$)/2 (i.e., the midpoint between the *n*/2 and *n*/2+1).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Municipal Separate Storm Sewer System (MS4)

A conveyance or system of conveyance (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) that is:

1. owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created pursuant to applicable federal and bi-state laws) having jurisdiction, that discharges to waters of the United States; including special districts under State law such as a sewer district or drainage district, flood control district, Indian tribe or an authorized Indian tribal organization or a designated and approved management agency under section 208 of the CWA;

2. designed or used for collecting or conveying storm water;

3. which is not a combined sewer for human sewage; and

4. which is not part of a Publicly Owned Treatment Works as defined in 40 CFR section 122.2.

Non-Contact Cooling Water
Water used to reduce temperature for the purpose of cooling. Such waters do not come into direct contact with any raw material, intermediate product (other than heat) or finished product.

Non-Storm Water
Discharges that do not originate from precipitation events, including but not limited to, discharges of process water, air conditioner condensate, non-contact cooling water, vehicle wash water, sanitary wastes, concrete washout water, paint wash water, irrigation water, or pipe testing water.

Not Detected (ND)
Sample results which are less than the laboratory's MDL.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollution
The man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water. (CWA section 502(19)) Pollution also means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either the waters for beneficial uses or facilities which serve these beneficial uses. (Water Code section13050, subdivision (l))

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP must be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Lahontan Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3, subdivision (d), must be considered to fulfill the PMP requirements.

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Boards.

Qualified Industrial Storm Water Practitioner (QISP)
A QISP is the individual assigned to ensure compliance with this General Permit. A QISP's responsibilities include implementing the SWPPP, performing the Annual Comprehensive Facility Compliance Evaluation (Annual Evaluation), assisting in the preparation of Annual Reports, performing ERAs, and training appropriate Pollution Prevention Team members. The individual must take the appropriate state approved or sponsored training to be qualified.

Quarters, Quarterly
Quarters or quarterly in this Order refer to the quarters of the annual reporting year beginning November 1 and ending October 31. First quarter, therefore, is November through January, second quarter is February through April, third quarter is May through July, and fourth quarter is August through October.

Reporting Level (RL)
RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Lahontan Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Run-on
Storm water drainage that originates offsite and flows onto the property from a separate property or area not under the control of the Discharger.

Significant Quantities
The volume, concentration, or mass of a pollutant in storm water discharge that can cause or threaten to cause pollution, contamination, or nuisance, adversely impact human health or the environment, and cause or contribute to a violation of any applicable water quality standards for the receiving water.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in the Basin Plan.

Storm Water
Storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

Suspended Sediment Concentration (SSC)
The concentration of suspended solid material in a water sample obtained by measuring the dry weight of all the solid material from a known volume of a collected water sample.

ATTACHMENT B – NOTICE OF INTENT

LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF GENERAL ORDER NO. R6T-2016-0038 FOR WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR STORM WATER RUNOFF ASSOCIATED WITH MARINA OPERATIONS IN THE LAKE TAHOE HYDROLOGIC UNIT

I. NOI STATUS

Submittal of this Notice of Intent (NOI) is for (mark only one item)**:**

□	Operation and Maintenance of the Marina Complete Sections: I – IV and XI – XVI
□	Change of Information (i.e., New Ownership) – Complete all applicable Sections based on requirements above.

II. PROPERTY OWNER

Company Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:		Title:	
UST No.		WDID No.	

III. DEVELOPER/CONTRACTOR INFORMATION

Developer Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:			

IV. MARINA LOCATION INFORMATION

Marina Name:		Marina Contact Person:	
Street (including address, if any):		Contact Phone:	
City/County:	Zip Code:	Emergency Contact (other than Site Contact):	
Nearest Cross Street(s):		Emergency Contact Phone:	
Township/Range/Section: T____, R____, Section____, MDB&M		Latitude: ____° ____' ____"	Longitude: ____° ____' ____"

V. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS (For operation and maintenance of the marina only. Check boxes that apply)

Storm Water Pollution Prevention Plan (SWPPP) and Marina Pollution Prevention Plan (MPPP)

□ A SWPPP that includes the minimum required BMPs and facility specific BMPs has been prepared for this facility and submitted to the Lahontan Water Board. (Marina Dischargers or Operators previously enrolled into coverage under the preceding Marina General Permit must revise their existing SWPPP and provide the revised Plan to the Lahontan Water Board prior to **September 30, 2016**.

□ A qualified person (or team of persons) has been assigned responsibility for pre-storm and post-storm BMP inspections to identify the effectiveness and necessary repairs or design changes.

□ A Marina Pollution Prevention Plan that includes the required minimum BMPs to minimize the potential for accidental spills to surface waters has been prepared for this facility and submitted to the Lahontan Water Board.

Monitoring Program

□ A monitoring program that includes visual inspections of BMPs before anticipated storm events and after storm events has been developed and submitted to the Lahontan Water Board.

□ A Joint or Individual Marina Surface Water Monitoring Plan (MSWMP) has been developed and submitted to the Lahontan Water Board. If a Joint MSWMP is being implemented, attach a copy of the Joint agreement and plan.

Permit Compliance Responsibility

□ A qualified person has been assigned responsibility to ensure full compliance with this Order, and to implement all elements of the SWPPP.

□ A qualified person is responsible for preparing an annual compliance evaluation and the annual report which is due to the Lahontan Water Board office by November 15 of each year.

□ A qualified person is responsible for eliminating all unauthorized discharges identified in the SWPPP.

VI. RECEIVING WATER INFORMATION

The storm water runoff from the site discharges (Check all that apply)
□ Indirectly to surface waters □ To a storm drain system – enter owner's name (e.g., Placer County, Caltrans) □ Directly to Waters of the U.S. (e.g., river, lake, creek)
Name of Receiving Water _____

VII. MATERIAL HANDLING/MANAGEMENT PRACTICES

Types of materials that will be handled and/or stored at the site either during the long-term operation of the marina.			
□ Petroleum Products	□ Metal	□ Asphalt/Concrete	□ Solvents
□ Hazardous Substances	□ Paint	□ Treated Wood Products	□ Plated Products
Are petroleum products (gasoline/diesel) being stored/distributed at your facility?	□ Yes	□ No	
If yes, number of storage tanks		If yes, volume of storage tanks	

VIII. BILLING INFORMATION

Send Bill To:	Facility Name:	Contact Person:
□ Owner	Mailing Address:	
□ Contractor	City, State, Zip:	
□ Other (describe)	Phone/Fax:	

IX. VICINITY MAP

Have you included a vicinity map with this submittal?	□	Yes	□	No
Does your facility map clearly indicate sample locations?	□	Yes	□	No

X. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fine or imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan will be complied with."
Signature of Property Owner:
Print or Type Name (Title):
Date:

Electronic document submittal is required. Please send your Notice of Intent to the Water Board's email address at Lahontan@waterboards.ca.gov and include your WDID No. and Facility Name in the Subject Line.

ATTACHMENT C – REQUEST FOR PERMIT REVOCATION

LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD

REQUEST FOR PERMIT REVOCATION

FOR
WASTE DISCHARGE REQUIREMENTS
AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR STORM WATER RUNOFF ASSOCIATED WITH MARINA OPERATIONS IN THE LAKE TAHOE HYDROLOGIC UNIT

Submission of this Request for Permit Revocation constitutes notice that the owner (and/or his/her agent) of the site identified on this form is seeking revocation of permit coverage authorizing discharges under NPDES Order No. CAG616003.

I. WDID No._____

Fill in WDID Number Above

II. PROPERTY OWNER

Company Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:		Title:	

III. DEVELOPER/CONTRACTOR INFORMATION

Developer Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:			

IV. SITE INFORMATION

Project Name:			
Site Address:			
City:	State:	Zip:	Phone:
Contact Person:			

V. BASIS OF REVOCATION

A. Check the box that describes the basis for the revocation of the Marina General Permit:

☐ 1. There is a new owner of the identified site.

Enter the date of owner transfer: ____ / ____ / _____

☐ 2. Other basis for requesting permit revocation.

B. If you checked box V.A.1, provide the new owner's information below:

NEW PROPERTY OWNER INFORMATION

Company Name:			
Mailing Address:			
City:	State:	Zip:	Phone:
Contact Person:		Title:	

VI. EXPLANATION OF BASIS OF REVOCATION (Attach site photographs, see instructions)

VII. CERTIFICATION

"I certify under penalty of law that all storm water discharges associated with industrial activity from the identified site that are authorized by NPDES Order No. CAG616003 have been eliminated or that I am no longer the owner of the site. I understand that by submitting this Request for Revocation Form, I am no longer authorized to discharge storm water associated with industrial activity under the Marina General Permit, and that discharging pollutants is storm water associated with industrial activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Request for Permit Revocation does not release an owner from liability for any violations of the Order or the Clean Water Act."
Signature:
Print or Type Name (Title):
Date:

LAHONTAN WATER BOARD USE ONLY
This request for Permit Revocation has been reviewed, and I recommend revocation of coverage under the Marina General Permit.
Signature:
Print or Type Name (Title):
Date:

INSTRUCTIONS FOR COMPLETING REQUEST FOR PERMIT REVOCATION

Who May File

Dischargers who are presently covered under Order No. CAG616003 (Marina General Permit) for discharge of storm water associated with marinas may provide a Request for Permit Revocation when they meet one of the following criteria.

1. There is a new owner of the identified site. If ownership or operation of the facility has been transferred then the previous owner must provide a Request for Permit Revocation and the new owner must provide a Notice of Intent for coverage under the Marina General Permit. The date of transfer and information on the new owner should be provided. Note that the previous owner may be liable for discharge from the site until the new owner files a Notice of Intent for coverage under the Marina General Permit.

2. Other basis for requesting permit revocation. Use this section to describe your basis if the basis is not included in 1 above.

Where to File

Electronic document submittal is required. Please send your Request for Permit Revocation to the Lahontan Water Board's email address at Lahontan@waterboards.ca.gov and include your WDID No. and Facility Name in the Subject Line. Submittal of the Request for Permit Revocation does not guarantee that permit coverage will be revoked. Outstanding invoices for annual fees must be paid through the annual period until coverage is revoked in writing. If the Executive Officer, or designated staff, agrees with the basis of revocation, your permit coverage will be revoked. (The Lahontan Water Board may also inspect your site prior to accepting the basis of revocation.) Approval of the Request for Permit Revocation does not relieve you from paying any applicable outstanding fees. If the Executive Officer, or his designated staff, does not agree with the basis of revocation, the Request for Permit Revocation will be returned and reasons for denial will be provided in a written notification.

LINE-BY-LINE INSTRUCTIONS

All necessary information must be provided on the form. Type or print in the appropriate areas only. Provide additional information, if necessary, on a separate sheet of paper.

SECTION I—WDID NO.

The WDID No. is a number assigned to each discharger covered under the Marina General Permit. If you do not know your WDID No., please call the Lahontan Water Board at (530) 542-5400 and request it before submitting the Request for Permit Revocation.

SECTION II—PROPERTY OWNER

Enter the owner of the project site's official or legal name (this should correspond with the name on the Notice of Intent submitted for the site), address of the owner, contact person, and contact person's title and telephone number.

SECTION III—DEVELOPER/CONTRACTOR INFORMATION

Enter the name of the developer (or general contractor), address, contact person, and contact person's title and telephone number. The contact person should be the site manager completely familiar with the project site and charged with compliance and oversight of the general permit. This information should correspond with information on the Notice of Intent submitted for the site.

SECTION IV—SITE INFORMATION

Enter the project name, site address, county, contact person, and telephone number (if any) of the marina site. Marina sites that do not have a street address must attach a legal description of the site.

SECTION V—BASIS OF REVOCATION

Check the basis of your revocation request. See the discussion of the criteria in the Who May File section of these instructions. Provide dates and other information requested.

SECTION VII—CERTIFICATION

This section must be completed by the owner of the site and in accordance with the signatory requirements contained in Attachment D, Standard Provisions, section V.B as follows:

A. The Request for Permit Revocation must be signed by:
For a Corporation: a responsible corporate officer.

For a Partnership or Sole Proprietorship: a general partner or the proprietor, respectively.

For a Municipality, State, or other Non-Federal Public Agency: either a principal executive officer or ranking elected official.

For a Federal Agency: either the chief or senior executive officer of the agency.

ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR 122.41(a).)

2. The Discharger must comply with effluent standards or prohibitions established under section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It must not be a defense for a Discharger 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 Order. (40 CFR 122.41(c).)

C. Duty to Mitigate

The Discharger must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d).)

D. Proper Operation and Maintenance

The Discharger must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also 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 Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR 122.5(c).)

F. Inspection and Entry

The Discharger must allow the Lahontan Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR 122.41(i)(1));

    a. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR 122.41(i)(2));

    b. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR 122.41(i)(3)); and

    c. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR 122.41(i)(4).)

G. Bypass

1. Definitions

a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR section 122.41(m)(1)(i).)

b. “Severe property damage” means substantial physical damage to property or 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. (40 CFR 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur that does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Lahontan Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR 122.41(m)(4)(i)(A));

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Lahontan Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR 122.41(m)(4)(i)(C).)

4. The Lahontan Water Board may approve an anticipated bypass, after considering its adverse effects, if the Lahontan Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it must submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger must submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. 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 operation. (40 CFR 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR 122.41(n)(2).)

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Lahontan Water Board. The Lahontan Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity. (40 CFR 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503 unless other test procedures have been specified in this Order. (40 CFR 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. The Discharger must retain records of all maintenance, inspections, training and monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application of this

Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by the request of the Lahontan Water Board at any time. (40 CFR 122.41(j)(2).)

B. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements (40 CFR 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 CFR 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 CFR 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 CFR 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 CFR 122.41(j)(3)(v)); and

6. The results of such analyses. (40 CFR 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied:

1. The name and address of any permit applicant or Discharger (40 CFR 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 CFR 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger must furnish to the Lahontan Water Board, State Water Board, or USEPA within a reasonable time, any information which the Lahontan Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger must also furnish to the Lahontan Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR 122.41(h); Wat. Code, § 13267.)

A. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Lahontan Water Board, State Water Board, and/or USEPA must be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, V.B.5, V.B.6, and V.B.7 below. (40 CFR 122.41(k).)

2. For a corporation, all permit applications must be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more

manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. (40 CFR 122.22(a)(1).)

3. For a partnership or sole proprietorship, all permit applications must be signed by a general partner or the proprietor, respectively. (40 CFR 122.22(a)(2).)

4. For a municipality, State, federal, or other public agency, all permit applications must be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR 122.22(a)(3).).

5. All reports required by this Order and other information requested by the Lahontan Water Board, State Water Board, or USEPA must be signed by a person described in Standard Provisions – Reporting V.B.2, 3, or 4 above, as appropriate, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2, 3, or 4 above, as appropriate (40 CFR 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR 122.22(b)(2)); and

c. The written authorization is submitted to the Lahontan Water Board and State Water Board. (40 CFR 122.22(b)(3).)

6. If an authorization under Standard Provisions – Reporting V.B.5 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.5 above must be submitted to the Lahontan Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR 122.22(c).)

7. Any person signing a document under Standard Provisions – Reporting V.B.2, 3, 4, or 5 above must make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR 122.22(d).)

B. Monitoring Reports

1. Monitoring results must be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Lahontan Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136 or, in the case of sludge use or disposal, approved under 40 CFR part 136 unless otherwise specified in 40 CFR part 503, or as specified in this Order, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Lahontan Water Board. (40 CFR 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, must utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR 122.41(l)(4)(iii).)

C. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, must be submitted no later than 14 days following each schedule date. (40 CFR 122.41(l)(5).)

D. Twenty-Four Hour Reporting

1. The Discharger must report any noncompliance that may endanger health or the environment. Any information must be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission must also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, 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. (40 CFR 122.41(l)(6)(i).)

2. The following must be included as information that must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(B).)

3. The Lahontan Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR 122.41(l)(6)(iii).)

E. Planned Changes

The Discharger must give notice to the Lahontan Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 40 CFR section 122.29(b) (40 CFR 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 CFR 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii).)

F. Anticipated Noncompliance

The Discharger must give advance notice to the Lahontan Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR 122.41(l)(2).)

G. Other Noncompliance

The Discharger must report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports must contain the information listed in Standard Provision – Reporting V.E above. (40 CFR 122.41(l)(7).)

H. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any

report to the Lahontan Water Board, State Water Board, or USEPA, the Discharger must promptly submit such facts or information. (40 CFR 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

The Lahontan Water Board is authorized to enforce the terms of the Marina General Permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural Dischargers must notify the Lahontan Water Board as soon as they know or have reason to believe (40 CFR 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 CFR 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 CFR 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 CFR 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR 122.42(a)(1)(iii)); or

d. The level established by the Lahontan Water Board in accordance with section 40 CFR section 122.44(f). (40 CFR 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following “notification levels" (40 CFR 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 CFR 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 CFR 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 CFR 122.42(a)(2)(iii)); or

d. The level established by the Lahontan Water Board in accordance with section 40 CFR section 122.44(f). (40 CFR 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Title 40 of the Code of Federal Regulations at section 122.48 requires that all National Pollutant Discharge Elimination System (NPDES) permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Lahontan Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein must be representative of the monitored discharge. All storm water samples must be taken at the monitoring locations specified on the map required in the SWPPP and before the monitored flow joins or is diluted by any other waste stream, body of water, or substance, unless otherwise specified by the Executive Officer. All surface water samples must be taken at the monitoring locations specified on the map required in the MSWMP. (Both the SWPPP and MSWMP are required with re-application for permit coverage.) Monitoring locations must not be changed without notification to and the approval of the Lahontan Water Board.

B. With the exception of field analysis conducted by dischargers for turbidity and pH, all laboratories analyzing monitoring samples must be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports. Dischargers may conduct their own field analysis of turbidity and pH if the discharger has sufficient capability (qualified trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

C. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program must be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices must be calibrated at least once per year to ensure continued accuracy of the devices, and records of calibrations must be maintained.

D. Dischargers must ensure that all sampling and sample preservation are in accordance with the current edition of “Standard Methods for the Examination of Water and Wastewater” (American Public Health Association).

E. All sample analyses must be conducted according to test procedures specified in 40 CFR part 136, or as otherwise stated within this Monitoring and Reporting Program.

F. Monitoring results, including non-compliance, must be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

G. Dischargers are not required to conduct visual inspections or collect storm water samples between the hours of 5:00 p.m. to 8:00 a.m., but inspections and sampling may be conducted during this period to meet the requirements of this Order.

II. MONITORING REQUIREMENTS

Pursuant to Water Code sections 13383 and 13267, all Dischargers subject to this Order must develop and implement a written site-specific Discharge Monitoring Program (DMP) and Marina Pollution Prevention Plan (MPPP). The DMP must include the applicable provisions for monitoring storm water discharges. Dischargers must provide a renewed or revised Marina Surface Water Monitoring Plan (MSWMP), consistent with section IV.B of this MRP, by **September 30, 2016**.

The DMP must be developed and implemented to include the monitoring and reporting requirements specified in the Marina General Permit and must at a minimum address the following objectives:

A. Determine whether the site is in compliance with the Discharge Prohibitions, effluent limitations, and USEPA benchmarks.

B. Determine whether immediate corrective actions, additional best management practices (BMPs) implementation, or Storm Water Pollution Prevention Plan (SWPPP) revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.

C. Determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.

D. Assess the water quality in the marina surface waters.

III. VISUAL INSPECTIONS

A. Visual Inspections of Marina Facilities

1. The purpose of the visual inspections is to discover potential sources of pollutants that could be washed off into storm water, the need for improvements in storm water control measures or maintenance or upgrade of BMPs, or other corrective actions necessary to ensure compliance with the conditions of this Order, so the Discharger can implement corrective measures immediately and before the next rain event. The inspections will also be used to document compliance with the conditions of the Order and the SWPPP and to evaluate the effectiveness of the SWPPP.

2. Visual inspections must be conducted at least monthly and more frequently during multi-day runoff-producing precipitation events. The Discharger must obtain the 7-day forecast for the address at the Discharger's Marina from the National Weather Service Forecast Office website (http://www.srh.noaa.gov/) at no less than seven-day intervals, and must include a copy of the forecast with the inspection log for every inspection date. Printouts must also be provided as above for the 7-day forecast beginning with each date that an inspection is actually conducted. Printouts do not need to be in color ink.

3. At a minimum, the inspections must be conducted in a manner to identify and report on the following items:

a. Maintenance and/or damage to, and corrective actions taken to repair, storm water BMPs, including vortex separation devices to remove trash, oil/water separators, containment dikes, erosion of vegetated swales, etc.

b. Adequacy of capacity of storm water containment devices to meet the design storm water volume retention and/or treatment requirements.

c. Signs of oil or material spills, and measures to dispose of spilled material and clean impervious areas before a rain event.

d. Spill response supplies that are available and quantities.

e. Impervious surfaces and storm water conveyances swept or cleaned as applicable.

f. Boat wash areas inspected to ensure that wash water is contained and not co-mingled with storm water or otherwise discharged.

g. Material storage piles, opened drums, or other storage containers that have been covered or protected by BMPs.

h. Boat sanding, cleaning or painting activities conducted outside are properly controlled and that residues are cleaned up timely (e.g., before precipitation).

i. Pet exercise area solid wastes are cleaned up and pet waste receptacles are emptied.

j. Litter or trash is removed; trash catchments are emptied; open trash containers are covered or moved to a covered area.

4. Inspection findings and corrective actions must be documented in the SWPPP inspection log using the Marina Facility Visual Inspection Form provided in Appendix II to this Attachment, and the Corrective Action form provided in Appendix III to this Attachment. Date-stamped photographs documenting findings must be attached. The log must include the time and date of the inspection, weather conditions, significant findings, a date specified to complete corrective actions, the inspector's name and signature, and the name and signature of the Storm Water Pollution Prevention Team (SWPPT) responsible person. Provide date of any corrective action completion and cross reference the Corrective Action Number to the corresponding Corrective Action Form.

B. Annual Comprehensive Site Inspection

1. The annual comprehensive site inspection must be performed during the **last week of September** of each year during the term of the permit. The comprehensive annual site inspection may be used in place of the required September monthly visual inspection.

2. The annual comprehensive site inspection must be conducted by qualified personnel and must include at least one member of the facility SWPPT.

3. The annual comprehensive site inspection must cover all areas of the facility affected by the requirements of this Marina General Permit, including the areas identified in the SWPPP as potential pollutant sources where industrial materials or activities are exposed to storm water, any areas where control measures are used to comply with the effluent limits, and areas where leaks and spills have occurred in the past 3 years. The inspection must also include a review of monitoring data collected in accordance with this MRP. Inspectors must consider the results of the past year's visual and analytical monitoring when planning and conducting inspections. Inspectors must examine all areas of the marina for the following:

    a. Industrial materials, residues, or trash that may have or could have come into contact with storm water.

    b. Leaks or spills from industrial equipment or drums, or on-site tracking of sediment from vehicles.

    c. Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site.

    d. Tracking or blowing of raw, final or waste materials from areas of no exposure to areas exposed to storm water.

    e. Control measures needing replacement, maintenance, or repair.

    f. Storm water BMPs or control measures functioning improperly and/or not adequately maintained to perform as required.

C. Documentation of Annual Comprehensive Site Inspection Results

The findings of the annual comprehensive site inspection must be documented using the inspection form provided as Appendix IV to this Attachment and corrective actions that resulted from the inspection documented using the form provided in Appendix III to this Attachment. A copy of the completed inspection form must be maintained with the SWPPP inspection log. In addition, the completed Annual Comprehensive Site Inspection Form in Appendix IV must be submitted with the Annual Report (See section V.B). At a minimum, the documentation must include the following information:

1. Date and time of the inspection.

2. The names and titles of personnel making the inspection.

3. All observations relating to the implementation of control measures including:

    a. Previously unidentified discharges from the site.

    b. Previously unidentified pollutants in existing discharges.

    c. Evidence of, or potential for, pollutants entering the drainage system.

d. Evidence of pollutants discharging to receiving waters at all facility outfall(s) and the condition of and around the outfall, including flow dissipation measures to prevent scouring.

e. Additional control measures needed to address any conditions requiring corrective actions identified during the inspection.

4. Any required revisions to the SWPPP resulting from the inspection.

5. Any incidents of non-compliance observed or a certification stating that the facility is in compliance with the Marina General Permit (if there is no noncompliance).

6. A statement signed and certified in accordance with the Standard Provisions of the Marina General Permit (Attachment D, section V. B).

7. Corrective actions required as a result of the annual inspection must be performed and documented consistent with section III.A.3 of this MRP, and documented in the Annual Report.

D. Visual Inspections of Storm Water Discharges

A minimum of four visual inspections of storm water discharges must be performed during each year, with at least one including discharges resulting from spring snow melt runoff, rain on snow, and/or other runoff-producing weather conditions that result in storm water discharges. Marina operators must visually observe storm water discharges from all drainage areas that represent the quality and quantity of the marina's storm water discharges from the storm event, and must include discharges from all designated storm water discharge outfalls or runoff as shown on the site map to be prepared as part of the SWPPP. Inspections must be documented using the form provided in Appendix V to this Attachment and corrective actions resulting from the inspection must be documented using the form provided as Appendix III to this Attachment. At a minimum the inspection log must document the following:

1. Time and date of the inspection.

2. Weather conditions, duration of the rain event, total inches of precipitation, and the time (hours/days) since the previous rain event.

3. Visible pollutants in the discharge including turbidity, trash, oil sheen, foam, or odors.

4. Impact on receiving water, distance from discharge point where discharge plume is still visible.

5. On-site erosion, flooding, bypassing or overflow of BMPs.

6. Co-mingling of run-on water from other properties with marina storm water discharge.

7. Site information, including number of boats being sanded or painted in outside storage areas, any on-going construction activity, disturbed soils, etc.

8. A description of any BMPs evaluated (i.e., erosion controls, sediment controls, chemical and waste controls, and non-storm water controls) and any deficiencies noted, including any spills, leaks or potential uncontrolled pollutant sources.

9. Observations of any storm water containment areas to detect leaks and ensure maintenance of adequate freeboard.

10. A description of any non-storm water discharges observed.

11. Any corrective actions required, including any necessary changes to the SWPPP and the associated implementation dates.

12. Number of boats, if any, that have broken loose from docks or moorings, and any associated spills or releases.

13. Photographs taken during the inspection, if any.

14. Inspector's name, title, and signature.

15. A summary of the completed corrective actions must be recorded with the date the action was completed.

Inspection forms must be maintained and made available to the Lahontan Water Board, State Water Board, or USEPA staff (or designated representative) upon request.

IV. STORM WATER AND SURFACE WATER MONITORING

A. Storm Water Monitoring

1. Storm Water Discharge Sample Type and Frequency

a. Storm water discharges from an Anticipated Rain Event (ARE, see definitions in Attachment A) must be sampled at least two times per year per sampling location for determining compliance with effluent limits to surface waters and/or land-based treatment systems. The first sampling event must be conducted during the first half of the calendar year during an ARE, or when snow melt, rain on snow, or other runoff-producing weather conditions result in storm water discharges. The second sampling event must be conducted during an ARE in the second half of the calendar year and during the first 30 minutes of discharge. If effluent limits are exceeded, corrective actions must be taken within 30 days and another sample must be taken within 30 days or the next ARE after receiving sample results, whichever is sooner. All sample results that exceed effluent limits must be identified and reported as such and provided to the Lahontan Water Board within 30 days after receiving the laboratory results. For those marinas that are not in service (see definition in Attachment A) during winter periods, the samples are not required while not in service, and may be taken during the months that the marina is in service.

b. Grab samples must be taken at each of the storm water discharge points as indicated on the site map in the SWPPP, unless otherwise specified by the Executive Officer. Monitoring for compliance with effluent limitations must be conducted on storm water discharges resulting from snow melt, rain on snow, and other runoff-producing weather conditions that result in storm water discharges from the associated marina facility to land-based treatment systems or to surface waters.

c. If the discharge exceeds a numeric effluent limitation, the Discharger must take corrective actions and re-sample within 30 days or the next qualifying rain event after taking such corrective actions. Monitoring must be performed for any pollutants that exceeded the effluent limits. The Discharger must continue to monitor at least quarterly for any pollutant that exceeds effluent limits, until the discharge is in compliance or until the Lahontan Water Board waives the requirement for additional monitoring.

d. Storm water discharges to surface water must be sampled on a quarterly basis for marinas in service all year, otherwise samples must be obtained during four separate quarters in the first two years of the permit term, at a minimum, for the purposes of determining whether the discharges exceed benchmark values in Tables 4 and 5 of the Marina General Permit. Grab samples must be taken at each of the storm water discharge points to surface water. If the sampling result is not below the specified benchmark value for any parameter in Table 4 or 5, the Discharger must review and upgrade the BMPs, and continue monitoring that parameter, as above, to determine whether the revised BMPs are effective in meeting the benchmark values. If the arithmetic mean or average of the concentrations of the four most-recent samples is less than the specified benchmark value for four consecutive samples, then no additional sampling is required for that parameter during the term of the Marina General Permit. This procedure must continue until the average concentration of four consecutive samples is less than the benchmark value. For the purposes of calculating the average concentrations, the Discharger must use a value of zero (0) for any individual parameter that is determined to be less than the method detection limit. For sample values that fall between the method detection limit and the quantification limit, the Discharger must use a value half-way between zero and the quantification limit.

2. Monitoring Locations

a. Storm water discharge samples must be collected at all discharge points where storm water and non-storm water is discharged onsite to infiltration and land based treatment systems, offsite to storm drainage systems not under the Discharger's control, and to surface waters. The proposed sampling sites must be specifically described in the application for coverage under this Marina General Permit and application support information, and approved by the Executive Officer.

b. Dischargers must ensure that effluent samples are representative of the discharge in each drainage area based on visual observation of the water and up-gradient conditions.

c. Dischargers must monitor and report site run-on from surrounding areas if there is a reason to believe run-on may contribute to an effluent limit exceedance.

d. Dischargers who deploy an Active Treatment Systems (ATS) on their site, or a portion of their site, must collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.

e. Discharge monitoring locations must be identified in the site map in the SWPPP and updated as necessary.

3. Analytical Methods

Table E-1 provides the analytical methods required for storm water monitoring.

Table E-1. Storm Water Sample Analytical Method Requirements

Effluent Limits	Unit	Test Method	Method Detection Limit
Total Nitrogen (as N)	mg/L	[1]	0.1
Total Phosphorus (as P)	mg/L	[1]	0.008
Iron, Total Recoverable	mg/L	[1]	[1,2,]
Turbidity	NTU	[1]	0.1
Oil and Grease	mg/L	[1]	[1,2]
pH	standard units	[1]	0.2
Benchmark Performance Levels			
Total Suspended Solids	mg/L	[1]	[1,2]
Specific Conductance	umhos/cm	[1]	[1,2]
Hardness ($CaCO_3$)	mg/L	[3]	[3]
Aluminum (Total Recoverable)	µg/L	[1]	[1,2]
Copper (Total Recoverable)	µg/l	[1]	[1,2]
Lead Total Recoverable)	µg/L	[1]	[1,2]
Zinc (Total Recoverable)	µg/L	[1]	[1,2]

[1] In accordance with 40 CFR part 136. For priority pollutants the methods must meet the lowest ML specified in Attachment 4 of the State Implementation Policy (SIP), where no methods are specified for a given pollutant, by methods approved by this Lahontan Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and the corresponding Minimum Level.

[2] The units, test method, and minimum detection limit must be identified in the Discharger's DMP.

[3] Hardness expressed as mg/L calcium carbonate is necessary to calculate the benchmark concentration for copper, zinc and lead, and is not limited in itself. Hardness values to be calculated at the beginning of the monitoring program and need not be repeated thereafter. Hardness value to be calculated in accordance with procedures in Appendix I.

4. Summary

Table E-2 summarizes the monitoring requirements for marina operations.

Table E-2. Summary of Storm Water Monitoring Requirements

Activity	Frequency	Requirement
Consult National Weather Service Forecast Website	At no less than seven-day intervals	Print forecast for your address. Include printed forecast in inspection log. If an anticipated rain event is forecasted, prepare to conduct storm water sampling as required below, and inspect and empty rain gauge.
Monthly Visual Facility Inspection	Monthly	Conduct inspection and take corrective actions to prevent pollutants from being discharged in storm water. Document inspections and corrective actions in log.
Annual Comprehensive Visual Inspection	Last week of September	May replace the September monthly inspection.
Visual Inspection of Storm Water Discharge	4/Year	Conduct inspection and take corrective actions during storm if possible, or if not possible, before the next storm. Document inspections findings and corrective actions in log.*
Storm Water Discharge Monitoring for Benchmark Pollutants	Quarterly until average concentrations are less than benchmarks	Collect four samples quarterly.* If the concentration exceeds the benchmark value for that parameter, take corrective actions, and repeat sampling for that pollutant during the next quarterly sampling until the average concentration from four consecutive samples is less than the benchmark value. Samples are required to be taken within the first 30 minutes of the discharge. Sampling may be discontinued for any given parameter whenever the average concentration from four consecutive samples is below the benchmark value.
Storm Water Discharge Monitoring for Effluent Limit Pollutants	2/Year/sample location for discharges to land and water; additional sampling required with exceedance.	All storm water discharges to be monitored at least two times per year per sample location for discharges to surface water and land treatment systems.* The first sampling event must be conducted during the first half of the calendar year during an ARE, or when snow melt, rain on snow, or other runoff-producing weather conditions result in storm water discharges. The second sampling event must be conducted during an ARE in the second half of the calendar year during the first 30 minutes of discharge. If effluent limits are exceeded, corrective actions must be taken and another sample must be taken within 30 days of receiving results or the next ARE, whichever is sooner. All samples must be reported to the Lahontan Water Board within 30 days after receipt of laboratory results.

* For those marinas that are not in service (see definition in Attachment A) during the winter, the sampling or inspection events may be during the months that the marina is in service.

B. Surface Water Monitoring

1. Dischargers covered under the Marina General Permit must provide a Marina Surface Water Monitoring Plan (MSWMP) to the Executive Officer of the Lahontan

Water Board. The plan must include: (1) a description of each proposed sampling location including a map and latitude and longitude, (2) the rationale for choosing the proposed sampling locations, sampling schedule, analytical methods, and detection/reporting (PQL) limits, and (3) quality assurance plans and a copy of the Sampling and Analysis Plan (SAP). The purpose of the MSWMP will be to determine the quality of the water within the marina.

2. At a minimum, the MSWMP must include the following:

a. Two sampling events must be conducted each year to include:

i. The first half of the calendar year during an ARE, or when snow melt, rain on snow, or other runoff-producing weather conditions result in storm water discharges. Samples must be taken from marina surface waters, down current from and within 250 feet of a storm water discharge for those marinas with discharges to surface waters.

ii. One sample must be taken during dry weather when no measurable rain has occurred within 72 hours. Samples must be taken in marina surface waters within five (5) feet of concentrated boat dock areas, and when present, back harbor areas with poor circulation.

iii. Samples must be analyzed for total nitrogen, total phosphorus, turbidity, aluminum (total recoverable), copper (total recoverable), iron (total recoverable), lead (total recoverable), mercury (total recoverable), zinc (total recoverable), pH and hardness (see Table E-3).

b. Four samples per year must be taken between July 1 and August 1 of each year within five feet of the fueling docks for total petroleum hydrocarbon (gasoline and diesel), and (combined) oil and grease. For those marinas that only dispense gasoline, monitoring for diesel is not required. If a sampling location other than five feet from fueling docks is justified, provide justification in writing with the MSWMP for acceptance by the Executive Officer.

c. Five samples must be taken between July 1 and August 1 of each year for indicator bacteria. Samples must be analyzed for fecal and E. coli. indicator bacteria. Samples must be taken within five feet of sewage pumpout stations. If a sampling location other than five feet from sewage pumpout stations is justified, provide justification in writing with the MSWMP for acceptance by the Executive Officer.

d. Document visual inspections, collection and characterization (volume and general composition) of trash in marina waters on four events per year. Inspections must be conducted during spring, early summer, late summer, and fall or early winter. For those marinas that are not in service (see definition in Attachment A) during the winter, the four events may be done during the months that the marina is in service. Visual inspection must encompass the entire surface water area of the marina operation. Collection of trash must be performed in marina receiving waters where trash has accumulated. Monitoring results must be recorded in a log and include the date, time, name of the

inspector, and the inspector's signature. Copies of digital, date-stamped photographs are required.

4. The MSWMP must include a plan for determining ambient background water quality to be used to compare with the monitoring data for the marina waters. The ambient background data will be used to aid in assessing the impact of the marina on local near-shore water quality. Ambient background must be sampled once per year.

5. The Executive Officer may request additional information pursuant to the authorities granted by section 13267 and/or section 13383 of the CWC.

6. The MSWMP is subject to the approval of the Executive Officer of the Lahontan Water Board. The Executive Officer must notify the Discharger if the MSWMP does not meet one or more of the minimum requirements of the MSWMP.

Table E-3. Marina Surface Water Monitoring Plan

Parameter/Effluent	Unit	Test Method	Method Detection Limit	Frequency
Total Nitrogen (as N)	mg/L	[1]	0.1	2/Year
Total Phosphorus (as P)	mg/L	[1]	0.008	2/Year
Aluminum (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Copper (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Iron (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Lead (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Mercury (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Zinc (Total Recoverable)	µg/L	[1]	[1,2]	2/Year
Hardness (as $CaCO_3$)	mg/L	[1]	[1,2]	1/Permit Term
Turbidity	NTU	[1]	0.1	2/Year
Grease and Oil	mg/L	[1]	[1,2]	4/Year
pH	SU	[1]	0.2	2/Year
TPH (Gasoline)	mg/L	EPA Method 8015/8021	[1,2]	4/Year
TPH (Diesel) for those marinas dispensing diesel	mg/L	EPA Method 8015 Modified	[1,2]	4/Year
Trash	--	--	--	4/Year
Fecal bacteria	MPN/100 ml	[1]	[1,2]	5 samples distributed between July 1 and August 1[4]
E. coli bacteria	MPN/100 ml	[1]	[1,2]	5 samples distributed between July 1 and August 1[4]

[1] Where no methods are specified for a given pollutant, methods must be approved by this Lahontan Water Board or the State Water Board. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and the corresponding Minimum Level.

[2] The units, test method, and minimum detection level must be identified in the Discharger's MSWMP.

[3] Hardness expressed as calcium carbonate (in mg/L) is necessary to calculate the California Toxic Rule (CTR) criteria for metals as specified in the SIP. Hardness values must be calculated in accordance with procedures in Appendix I.

[4] Five samples to be taken approximately weekly during the period between July 1 and August 1, near the sewage pumpout stations. This sampling frequency will allow for assessment as to whether water quality is meeting the receiving water limitation for fecal coliform as described in section VI of the Marina General Permit (i.e., "The fecal coliform concentration during any 30-day period must not exceed the log mean of 20 MPN/100 mL. USEPA recommends that the log mean should ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30 day period."

V. REPORTING REQUIREMENTS

A. Storm Water and Surface Water Monitoring Reports

1. **Storm Water and MSWMP Reports.** The Discharger must provide all sampling results to the Lahontan Water Board no later than 30 days after receiving the laboratory results for each sample that the Discharger collects pursuant to this Order. The following information must be included:

   a. WDID Number.

   b. Facility name, physical address, and location.

c. Name of receiving water.

d. Monitoring data from this monitoring event.

e. If there is an exceedance of limitations, an explanation of the situation, including corrective actions, if applicable.

f. An appropriate contact name and phone number.

2. **Water Sampling Reports.** The Discharger must summarize all storm water and MSWMP results in the Annual Report using the water sampling results worksheet in Attachment E - Appendix V

B. Annual Report

On or before November 15th of each year the Discharger must provide an Annual Report to the Lahontan Water Board using the form provided in Attachment J or an equivalent form. The applicable sections of Attachment J, the Annual Report Form, must be completed.

1. The facility or project name and location and WDID number.
2. Any significant problem(s) which occurred during the reporting year, including exceedances of effluent limits or benchmarks, and a description of corrective actions taken or planned.
3. Analytical results from monitoring collected pursuant to section IV of this MRP over the past 12 months and a summary of those results (see Attachment E, Appendix VI, Storm Water Sampling Results Worksheet).
4. Personnel training records, including dates, information covered in training sessions, and personnel trained.
5. A description of the exceedance or condition requiring corrective action must be documented for inclusion in the annual report within 24 hours of discovery. A summary of corrective actions must be documented for inclusion in the annual report within 14 days of discovery. Conditions requiring corrective action include, but are not limited to, the following: an exceedance of effluent limits, the average concentration of samples exceeds benchmark levels, and an inspection by a regulatory agency has indicated need for corrective action.
6. Maintenance records for all vault-type BMPs (e.g., drop inlets**,** drain inserts, wet vaults, vortex separators, etc.).
7. A copy of the Annual Comprehensive Site Inspection Report (Attachment E, Appendix IV) for the reporting year.
8. Dischargers must answer questions regarding marina activity levels during the reporting year (Questions 1 through 68 on the Annual Report Form provided in Attachment J).

9. Signed Certification Statement provided in the Annual Report Form. The signature requirements specified by the Standard Provisions (Attachment D, section V.B) apply to the signing of the Certification Statement provided in the Annual Report.

10. Proposed plans for construction involving less than one acre of disturbance during the next Annual Report cycle.

11. Aquatic Invasive Plant Species survey performed within the marina's waters between July 1 and October 31. The survey must either be performed by a professional qualified in the field of aquatic invasive plant species identification or by a person trained by the League to Save Lake Tahoe's "Eyes on the Lake" Program. The certified survey map must be included in and attached to the Annual Report.

12. Annual Reports must be electronically submitted to the Lahontan Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the following email address: **Lahontan@waterboards.ca.gov. You must include your WDID No. and Facility Name in the Subject Line.**

C. Construction Project Monitoring Report

For construction activities involving less than one acre of disturbance, the Discharger must provide, the following information, at a minimum:

1. Details of any modification of the construction or project plans for the proposed storm water collection treatment, or disposal facilities or restoration work.

2. Details on any change in the amount of impervious coverage for the project site.

3. Any significant problem(s) that occurred during project construction and remedial measures planned or implemented.

4. A report on the status of onsite soil stabilization and re-vegetation measures that have been completed or that are incomplete.

D. General Reporting Requirements

1. General Monitoring and Reporting Requirements

a. The Discharger must comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.

b. At any time during the term of the Marina General Permit, the State or Lahontan Water Board may notify the Discharger to electronically provide reports using the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) website. Until such notification is given, the Discharger must provide electronic copies of SMRs to **Lahontan@waterboards.ca.gov**.

2. Records of all inspections (including the inspection log book), a record of corrective actions, and monitoring reports, must be maintained by the Discharger for a period of at least 5 years.

3. **Reporting Protocols.** The Discharger must report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR Part 136.

   The Discharger must report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the reported ML must be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, must be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample must also be reported.

   For the purposes of data collection, the laboratory must write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality 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.

   c. Sample results less than the laboratory's MDL must be reported as "Not Detected," or ND.

   d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

E. Compliance Determination

Any noncompliance with any of the requirements of the Marina General Permit constitutes a violation of the CWA and/or the CWC. Failure to take any required corrective actions constitute an independent, additional violation of this Order and the CWA and/or the CWC. As such, any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying noncompliance. However, where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided the Discharger takes the required corrective action within the relevant deadlines established in this Order and complies with the applicable recordkeeping and reporting requirements necessary to document such action. Compliance with inspection and employee training requirements specified in of this Order will be based upon documentation including the required inspection logs and training records. Compliance with the effluent limitations contained in section V of this Order will be determined as specified below:

Compliance with effluent limitations must be determined using sample reporting protocols defined above. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger must be deemed out of compliance with effluent limitations if the pollutant is detected in amounts greater than the effluent limitations established in section V of the Marina General Permit.

Attachment E, Appendix I - Calculating Hardness in Receiving Water for Hardness Dependent Metals

The Discharger may determine hardness by taking and analyzing hardness values in the receiving water or from using third-party data. For storm water samples the hardness values must represent conditions during times when precipitation events have resulted in storm water runoff, and must be taken from the closest receiving water downstream from the storm water discharge point. Hardness values to be used during dry weather sampling for the MSWMP must be taken in the sampling area during dry weather. Hardness values must be sampled and analyzed using approved methods as described in 40 CFR part 136 (Guidelines Establishing Test Procedures for the Analysis of Pollutants).

The Discharger is responsible for documenting procedures used to determine hardness values. Once the hardness value is established, the Discharger must include the information with the first round of effluent and benchmark monitoring data, and MSWMP monitoring data.

The Discharger may also provide receiving water hardness data collected by a third party provided the results are collected consistent with the approved 40 CFR Part 136 methods. These data may come forma local water utility, previously conducted water assessment reports, peer reviewed literature, other government publications, or data previously collected by the Discharger. Data should be less than 10 years old.

Water quality data for many of the nation's surface waters are available on-line or by contacting EPA or the Lahontan Water Board. EPA's STORET, short for STOrage and RETrieval, is a repository for receiving water quality, biological and physical data. The U.S. Geological Service (USGS) also has water quality data available online. "Legacy STORET" codes for hardness include: 259 hardness, 260 hardness, noncarbonated, and 261 calcium + magnesium, while more recent "Modern STORET" data codes include: 00900 hardness, 00901 carbonate hardness, and 00902 noncarbonate hardness, or the discreet measurements of calcium (00915) and magnesium (00925) can be used to calculate hardness. If these are unavailable, then individual results for calcium (Ca) and magnesium (Mg) may be used to calculate hardness using the following equation:

$$\text{mg/L } CaCO_3 = 2.497\ (\text{Ca mg/L}) + 4.118\ (\text{Mg mg/L})$$

When interpreting the data for carbonate and non-carbonate hardness, note that total hardness is equivalent to the sum of carbonate and non-carbonate hardness if both forms are reported. If only carbonate hardness is reported, it is more likely that non-carbonate hardness is absent and the total hardness is equivalent to the available carbonate hardness.

Source: USEPA, 2008 Multi-Sector General Storm Water Permit for Discharges Associated with Industrial Activity, Appendix J.

Attachment E, Appendix II – Marina Facility Visual Inspection Form

Inspections must be conducted monthly and within 24 to 48 hours of an anticipated rain event.

Inspector: _____ Title: _____

Date: _____ Time: _____

Weather Conditions at time of inspection: _____

Inspection Items	Findings	Corrective Actions Required	Date(s) Corrective Actions Implemented/ Corrective Action Number
Inspect storm water BMPs for damage			
Storm water containment devices for capacity			
Signs of oil or material spills			
Spill response supplies			
Sweep or clean impervious surfaces			

Inspection Items	Findings	Corrective Actions Required	Date(s) Corrective Actions Implemented/ Corrective Action Number
Boat wash areas and containment			
Material storage piles, open drums, or other containers			
Boat sanding, cleaning, or painting activities conducted and residues cleaned			
Clean pet solid wastes from exercise areas			
Remove litter or trash; empty trash catchments; cover open trash containers.			
Comments:			

Inspector Signature: _____ Date: _____

Leader of the Storm Water Pollution Prevention Team Signature: _____ Date: _____

Name (Print): _____ Title: _____

Attach a copy of the day's weather forecast from the National Weather Forecast Office website (http://www.srh.noaa.gov) and date stamped photographs documenting significant findings.

Attachment E, Appendix III – Corrective Action Form

Corrective Action Number: _____ of _____ for this reporting period

- ☐ Update on a corrective action from a previous annual report
- ☐ New corrective action

How was the problem identified?

- ☐ Employee observation
- ☐ Facility inspection
- ☐ Storm water discharge monitoring
- ☐ Benchmark monitoring
- ☐ Notification by EPA or State or local authorities
- ☐ Other (describe): _____

Identify the condition(s) triggering the need for this review:

- ☐ Unauthorized release or discharge
- ☐ Numeric effluent limitation exceedance
- ☐ Control measure inadequate to meet applicable water quality standards
- ☐ Control measures inadequate to meet non-numeric effluent limitations
- ☐ Control measures require maintenance
- ☐ Change in facility operations necessitated change in control measures
- ☐ Average benchmark value exceedance
- ☐ Other (describe): _____

Briefly describe the nature of the problem identified:	Date problem identified: _____

Description of corrective action(s) taken or to be taken to eliminate or further investigate the problem (e.g., describe modifications or repairs to control measures, analyses to be conducted) or if no modifications are needed, basis for that determination:

Did or will this corrective action(s) require modification of your SWPPP?	**Yes** ☐	**No** ☐

Date corrective action initiated: _____

Date corrective action completed: _____	Or date expected to be completed: _____

If corrective action is not yet completed, provide the status of corrective action at the time of the comprehensive site inspection and describe any remaining steps (including timeframes associated with each step) necessary to complete corrective action:

Inspector Signature: _____ Date: _____

Leader of the Storm Water Pollution Prevention Team Signature: _____ Date: _____

Name (Print): _____ Title: _____

Attachment E, Appendix IV – Annual Comprehensive Site Inspection Form

Annual site inspection is to be conducted in last week of September of each year.

Facility Name: _____ Date/Time: _____

Inspector: _____ Title: _____

Additional Inspector: _____ Title: _____

Contact Person: _____ Title: _____

Phone: _____ Ext. _____ E-mail: _____

Yes	No	Inspection Items	Description
☐	☐	Did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to storm water?	
☐	☐	Did this inspection identify any storm water or non-storm water outfalls not previously identified in your SWPPP?	
☐	☐	Did this inspection identify any sources of storm water or non-storm water discharges not previously identified in your SWPPP?	
☐	☐	Did you review storm water monitoring data as part of this inspection to identify potential pollutant hot spots?	

Describe any evidence of pollutants entering the drainage system or discharging to surface waters, and the condition of and around all outfalls, including flow dissipation measures to prevent scouring:

Inspection of Activity Areas	Findings	Yes	No	Corrective Actions Required (attach completed Corrective Action Form)	Date Actions implemented
Boat and equipment maintenance areas	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		

Inspection of Activity Areas	Findings	Yes	No	Corrective Actions Required (attach completed Corrective Action Form)	Date Actions implemented
Boat wash areas	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		
Locations where fuel and chemical products or waste are stored	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		
Fueling areas	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		
Sewage and bilge pump-out stations where storage tanks are pumped to fill or empty bulk tanks of fuel or to empty waste	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		
Stormwater conveyance, infiltration, and treatment systems. Also, locations and sources of run-on to the marina from adjacent property that contains significant quantities of pollutants.	Any control measures in need of maintenance or repair? (Attach Maintenance records)	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		

Inspection of Activity Areas	Findings	Yes	No	Corrective Actions Required (attach completed Corrective Action Form)	Date Actions implemented
Other Industrial Activity Area: _____	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		
Other Industrial Activity Area: _____	Any control measures in need of maintenance or repair?	☐	☐		
	Have any control measures failed and required replacement?	☐	☐		
	Are any additional control measures necessary in this area?	☐	☐		

Yes	No	Inspection Item	Description and Observations
☐	☐	Are there any unidentified pollutants in existing discharges?	
☐	☐	Is there any evidence of, or the potential for, pollutants entering the drainage system?	
☐	☐	Are there any additional control measures needed to address any conditions requiring corrective actions identified during the inspection?	

Description of required SWPPP revisions (if any):	Date SWPPP Revisions Implemented: _____

Yes	No	Do you certify that your annual inspection has met the requirements of the permit (CAG616003), and that based upon the results of this inspection, to the best of your knowledge, you are in compliance with the permit?
☐	☐	

If you checked “No” above, describe why you are not in compliance:	Date non-compliance corrected: _____

Comments:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector Signature: _____ Date: _____

Responsible Official Signature: _____ Date: _____

Responsible Official Name (Print) Title:

_____ _____

Attachment E, Appendix V – Storm Water Discharge Visual Inspection Form

Inspections of storm water discharges must be performed a minimum of four times per year, including visual inspection of discharges resulting from spring snow melt, rain on snow, and other runoff-producing weather conditions.

Inspector: _____ Title: _____

Date: _____ Time: _____

Weather Conditions at time of inspection: _____ Duration of rain event: _____

_____

Total inches of precipitation: _____ Time (hours/days) since previous rain event:

_____

Yes	No	Inspection Item
☐	☐	Any visible pollutants in the discharge (turbidity, trash, oil sheen, foam, or odors?

Description of discharge:

Yes	No		
☐	☐	Any visible impacts on receiving water?	Distance from discharge point where discharge plume is still visible: _____
☐	☐	Any on-site erosion, flooding, bypassing or overflow of BMPs?	
☐	☐	Any co-mingling of run-on water from other properties with marina storm water discharge?	
☐	☐	Any outdoor activities including boats being sanded or painted, on-going construction activity, disturbed soils, etc.?	
☐	☐	Any BMPs evaluated and deficiencies noted?	

Description of BMPs evaluated and any deficiencies:

Yes	No		
☐	☐	Observation of storm water containment areas for leaks	
☐	☐	Any non-storm water discharges observed?	
☐	☐	Any corrective actions required including necessary changes to the SWPPP?	Implementation date(s): _____
☐	☐	Are there any boats, if any, that have broken loose from docks or moorings, and any associated spills or releases?	Number of boats broken loose (if any): _____

Corrective Actions Required:	Date(s) Corrective Actions Implemented: _____

Comments:

Inspector Signature:

Date:
_____

_____

Leader of the Storm Water Pollution Prevention Team Signature

Date:
_____

_____

Name (Print):

Title:

_____

_____

Attach photographs taken during the inspection.

Storm Water Sampling Results Worksheet – Effluent Sampling

B.O. Section	Sample Date	Sample # from map	Sample #	Sample Location Description	Indicate Discharge (land or water)	Sample Results	Reporting Limit	Units	Parameter	Violation (Yes or No)	Land Treatment Systems	Max Surface Water & MS4
V.A.1 table 3			1)						Total N		5 mg/L	0.5 mg/L
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									
V.A.1 table 3			1)						Total P		1 mg/L	0.1 mg/L
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									
V.A.1 table 3			1)						Total Iron		4 mg/L	0.5 mg/L
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									
V.A.1 table 3			1)						Turbidity		200 NTU	20 NTU
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									
V.A.1 table 3			1)						Grease & Oil		40.0 mg/L	2.0 mg/L
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									
V.A.1 table 3			1)						pH		6-9 pH units	6-9 pH units
			2)									
			3)									
			4)									
			5)									
			6)									
			7)									
			8)									

Storm Water Sampling Results Worksheet - Benchmarks

B.O. Section	Sample Date	Sample # from map	Sample #	Sample Location Description	Indicate Discharge (land or water)	Sample Results	Reporting Limit	Units	Parameter	Violation (Yes or No)	Land Treatment Systems	Max Surface Water & MS4	USEPA Benchmark Value
V.D table 4 & 5			1)						TSS		n/a	100	100 (4x= 400 mg/L)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 4 & 5			1)						Specific Conductance		n/a	200	200 (4x=800 umhos/cm)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 4 & 5			1)						Aluminum		n/a	0.75	0.75 (4x= 3.0 mg/L)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 5			1)						Hardness		n/a	n/a	
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 4 & 5			1)						Lead (total recoverable)*		n/a	0.014	0.014 (4x= 0.056mg/L)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 4 & 5			1)						Zinc (total recoverable)*		n/a	0.04	0.04 (4x= 0.16 mg/L)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										
V.D table 4 & 5			1)						Copper (total recoverable)*		n/a	0.0038	0.0038 (4x= 0.0152 mg/L)
			2)										
			3)										
			4)										
			5)										
			6)										
			7)										
			8)										

Marina Surface Water Monitoring Program Sampling Results Worksheet

Parameter	Units	Storm Discharge Date	Storm Discharge Results	Storm Discharge Sample Location	Non-Storm Discharge Date	Non-Storm Discharge Results	Non-Storm Discharge Sample Location	Reference Date	Reference Results	Reference Location
Total N	mg/L									
Total P	mg/L									
Al	ug/L									
Cu	ug/L									
Fe	ug/L									
Pb	ug/L									
Hg	ug/L									
Zn	ug/L									
Hardness	mg/L $CaCO_3$									
Turbidity	NTU									
pH	SU									
Other PP										

MSWMP – Fuel and Bacteria Sampling

Parameter	Units	Dates Sampled			Sample Location			Sample Results	Violation	
TPH (Gasoline)	mg/L				Fuel Dock					
TPH (Diesel)	mg/L				Fuel Dock					
Oil & Grease	mg/L				Fuel Dock					
Trash	N/A									
Fecal Bacteria	MPN/ 100ml				Pumpout					
E. Coli Bacteria	MPN/ 100ml				Pumpout					

ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Marina General Permit.

This Marina General Permit has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to these dischargers. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to these dischargers.

I. PERMIT INFORMATION

A. Background

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the CWA added section 402(p), which establishes a framework for regulating municipal and industrial storm water discharges under the NPDES Program.

The CWA prohibits certain discharges of storm water containing pollutants except in compliance with an NPDES permit (Title 33 United States Code (USC) §§ 1311 and 1342(p); CWA §§ 301 and 402(p)). The U.S. Environmental Protection Agency (USEPA) promulgates federal regulations to implement the CWA's mandate to control pollutants in storm water runoff discharges (Title 40 Code of Federal Regulations (CFR) parts 122, 123, and 124). The NPDES permit must require "best practicable control technology currently available" (BPT) (33 U.S.C § 1314(b)(1)(B)) applicable to all pollutants; Best Conventional Pollutant Control Technology (BCT) for conventional pollutants (33 U.S.C § 1314(b)(4)(A)), and Best Available Technology Economically Achievable (BAT) for toxic or non-conventional pollutants (33 U.S.C § 1314(b)(2)(A)). The NPDES permit must also include additional requirements necessary to implement applicable water quality standards.

On November 16, 1990, the USEPA published final regulations that established storm water permit application requirements for specified categories of industries. Facilities that discharge storm water "associated with industrial activity" requiring a permit are listed by Standard Industrial (SIC) code in 40 CFR 122.26(b)(14), and include marinas. Marina operations (SIC Code 4493) are classified as Water Transportation.

The federal regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five acres or more of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II rule) that became final on December 8, 1999, lowered the permitting threshold from five acres to one acre.

The federal regulations do not apply to construction activities that disturb less than one acre. However, the Basin Plan, section 5.2 prohibits the discharge of storm water to Lake Tahoe unless the wastes in the discharge are controlled through the application of management practices or other means, and discharge does not cause a violation of

water quality objectives. The Marina General Permit serves as Waste Discharge Requirements (WDRs) to implement the provisions of the Basin Plan for storm water from small-scale construction projects at marina facilities. These construction projects may include upgrades to storm water BMPs, but are not limited to construction of BMPs. Larger-scale construction projects at the marinas that disturb one acre or more of land are subject to the Lahontan Water Board's General Construction Storm Water Permit (NPDES No. CAG616002).

This reissued Marina General Permit authorizes discharges to surface waters of the United States of storm water from the operation and maintenance of marinas in the Lake Tahoe Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 634.00) so long as the Discharger complies with all requirements, provisions, limitations and prohibitions in this Order. Storm water discharges from industrial activities and construction activity disturbing less than one acre of land at marina facilities are covered.

This Marina General Permit does not preempt or supersede the authority of local storm water management agencies to prohibit, restrict, or control storm water discharges to municipal separate storm sewer systems or other watercourses within their jurisdictions.

For Dischargers of storm water covered by Order No. R6T-2011-0024, the terms and conditions of that Order are considered automatically continued and remain in effect until new WDRs and NPDES permit are adopted pursuant to this Order.

B. General Criteria

1. This Marina General Permit serves as a General NPDES Permit and WDRs for industrial storm water discharges associated with industrial activities, including small-scale construction (less than one acre of disturbance) and maintenance activities at marinas on the California side of the Lake Tahoe HU.

2. Activities and discharges covered under this Marina General Permit are described below:

a. Storm water discharges associated with industrial activity from the California marinas to land treatment facilities or surface water in the Lake Tahoe HU.

b. Construction or demolition activity at the California marinas, including, but not limited to clearing, grading, grubbing or excavation that is: (1) performed on marina property, and (2) disturbs less than one acre of land surface and is not part of larger common plan of development or sale. Such projects may include underground or overhead utility projects.

3. Discharges of wastes to surfaces waters are prohibited unless an exemption to waste discharge prohibitions is granted in writing. Activities and discharges specifically <u>not</u> covered by or eligible for coverage under the Marina General Permit include:

a. Boat washing, scrubbing, or rinsing for the purpose of decontamination for AIS where waste discharges are other than to a sanitary sewer or washing system that recycles wash water in a closed recycling system.

b. Washing of boats or structures where waste discharges are other than to a land-based treatment system, sanitary sewer or washing system that recycles wash water in a closed recycling system.

c. Discharge of wastes from bilge or ballast water originating from vessels.

d. Construction activity that disturbs one acre of land surface or more, or is part of a larger common plan of development or sale.

e. Activity specifically covered by another individual or general NPDES permit for storm water discharges or process waste discharges.

4. Upon receipt of the Notice of Intent (NOI), the Executive Officer must determine if the identified discharges satisfy the following conditions:

a. The discharge to surface waters is storm water associated with the operation and maintenance of the marina facility or an authorized non-storm water discharge.

b. Whether the project meets the requirements for an exemption from the Basin Plan prohibition against disturbance of lands classified as below the ordinary high water rim of Lake Tahoe or 100-year floodplain areas of tributaries, or within Stream Environment Zones.

c. The Discharger has submitted a revised SWPPP that describes BMPs capable of reliably meeting all prescribed effluent limitations and/or provisions in the Marina General Permit.

d. The Discharger has submitted a Marina Pollution Prevention Plan (MPPP) that describes BMPs that will ensure nonpoint source discharges will comply with the Discharge Prohibitions (section IV) and Receiving Water Limitations (section VI) of this Order.

e. The Discharger's SWPPP incorporates BMPs, as feasible, to infiltrate and/or treat storm water runoff from existing and proposed impervious surfaces on the site.

f. The Discharger's SWPPP describes specific measures to prevent the discharge of pollutants from the site.

g. The Discharger has submitted a Discharger Monitoring Plan (DMP) that meets the requirements of the Monitoring and Reporting Program (MRP).

II. DISCHARGE DESCRIPTION

A. Discharge Description

Pollutants often associated with marina operations include: total petroleum hydrocarbon (TPH), bacteria, metals (aluminum, copper, iron, and zinc) and trash. Marina facilities typically include fueling operations, sewage and bilge pumpout facilities, and boat storage and maintenance areas. Marina activities may include boat washing, sanding, abrasive blasting, painting, engine repairs and other mechanical repair. These activities are typically performed in outside areas, allowing for the possibility of discharge of

pollutants to storm water including sand blast grit, paint chips, metals, total petroleum hydrocarbons, and bacteria from sewage spills or pet waste. Trash may also accumulate at marina facilities from both maintenance and recreational activities.

In Lake Tahoe, aggressive measures are being taken to prevent the spread of AIS. As part of these measures, boats that fail inspection prior to launch are washed with hot water, generating large volumes of waste water. This waste water is currently being disposed of at upland, lined concrete evaporation basins and is prohibited from being discharged to surface water under the Marina General Permit.

Storm water discharges from minor construction and maintenance activities authorized under this Marina General Permit are limited to those construction and maintenance activities that disturb less than one acre of land. However, storm water discharges from small construction projects may still present the potential for discharge of sediment. Nutrients can also be present in construction site storm water discharges, either as naturally-occurring components of the soil or due to previous activities on the site, such as soil enrichment due to landscape activities. Additionally, activities during construction activities, such as hydroseeding, can increase nutrients levels in the soil. Construction storm water also has the potential to have a high pH if cement mixing or concrete work is being performed.

B. Summary of Existing Requirements

Effluent limitations contained in Order No. R6T-2011-0024 for marina discharges in the Lake Tahoe HU are as follows:

1. All surface flows generated within the facility that are discharged to land treatment systems, surface waters or municipal storm water collection systems must not contain constituents in excess of the following concentrations shown in Table F-1.

2. If constituent concentrations of waters entering the project area exceed the numerical limitations specified, below, there must be no increase in the constituent concentrations in the waters that are discharged from the project area.

Table F-1. Historic Effluent Limitations

Parameter	Units	Effluent Limitations for Discharges to:	
		Land Treatment Systems	Storm Sewer Collection Systems and Surface Waters
Total Nitrogen (as N)	mg/L	5	0.5
Total Phosphorus (as P)	mg/L	1	0.1
Total Iron	mg/L	4	0.5
Turbidity	NTU	200	20
Grease and Oil	mg/L	40	2
pH	SU	[1]	--

[1] Note: pH was included in the Monitoring Form in Attachment Y of Order No. R6T-2005-0015-A1, but was not listed in the table in section II. Discharge Specifications. The pH of the effluent must range between 6.0 and 9.0 standard units.

3. All surface flows generated within the project area, or as a result of the development of the project, that are discharged to surface waters or municipal storm water collection systems must not contain the following:

    a. substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, or animal life; and

    b. coliform organisms attributable to anthropogenic sources including human and livestock sources.

4. In addition to the effluent limitations contained above, the following BMPs are required:

    a. Minimum BMPs that are specified in Attachment H. Minimum BMPs include: (1) good housekeeping, (2) preventive maintenance, (3) spill response, (4) material handling/waste management, (5) employee training program, (6) record keeping and quality assurance, (7) erosion/sediment control, and (8) visual inspections of the facility.

    b. Where appropriate Dischargers are required to implement BMPs that eliminate, to the maximum extent practicable, pollutant discharges associated with fueling activities, bilge and sewage pump-out activities, boat washing, and sunken vessels that occur at the marina.

    c. Prior to any disturbance of existing soil conditions, the Discharger is required to install temporary siltation control facilities to prevent transport of eroded earthen materials and other wastes off the property.

    d. All areas subject to unauthorized vehicle use are to be adequately protected from such use by installation of barriers and signs.

    e. Storm water runoff collection, pretreatment and/or infiltration disposal facilities are to be designed, installed and maintained to preclude a discharge from at least a 20-year, 1-hour design storm (approximately 1 inch of rainfall) from all impervious surfaces.

    f. Storm water runoff in excess of the design storm is to be discharged only to a storm drain or stabilized drainage, and is required to meet the storm water effluent limitations for discharges to surface water.

    g. If site conditions did not allow for adequate onsite disposal, all site runoff is to be treated to meet the storm water effluent limitations and the receiving water limitations.

    h. Storm water runoff handling and disposal facilities are to be cleaned and renovated annually.

    i. At no time is waste earthen material to be placed in the surface drainage courses or in such a manner as to allow the discharge of such materials to adjacent undisturbed land or to any surface water drainage course.

j. The Discharger is required to immediately clean up and transport to a legal site any spilled petroleum products to the maximum extent practicable.

k. Snow storage and disposal is to be separated from surface waters and contained to minimize surface runoff.

l. The Discharger must implement any applicable non-structural and structural BMPs identified in the SWPPP requirements specified in Attachment G.

m. The Discharger must avoid the release of harmful cleaners and solvents to surface waters, and boat cleaning operations are to be performed on land wherever feasible. Detergents containing phosphorus, ammonia, sodium hypochlorite, solvents, petroleum distillates, and cleaning compounds are discouraged. Detergents are not to contact surface waters.

n. Work areas for boat repair are to be clearly marked. Hulls covered with bottom paint are not to be scraped underwater. All wastes associated with hull maintenance and cleaning (sanding, debris, etc.) are to be collected and disposed of properly. Vacuuming is the preferred method of collecting these wastes. (This does not apply when algae is being removed from a hull with a scrub brush and water only; algae removal with any type of detergent, algaecide, or solvent is not allowed.)

o. The Discharger is to make available clearly labeled receptacles for the disposal of waste oil, waste gasoline, used antifreeze, and waste diesel.

p. Dischargers must implement BMPs to prevent or reduce the amount of petroleum hydrocarbons entering the surface waters.

q. Dischargers are to minimize and prevent the improper disposal of sanitary wastes, including the discharge of marine heads directly to surface waters. To prevent illicit sewage discharges from boats, Dischargers must maintain sewage pumpout facilities at their marina, as follows. Fixed-point sewage pumpout facilities are required at marinas that: (1) leased 25 percent or more of their slips to cruisers, houseboats, and other watercraft equipped with portable heads, toilets or holding tanks; and /or (2) accommodated 100 boats with holding tanks. Marinas that operate as small boat harbors and for the most part accommodated boats under 26 feet in length are not required to have fixed-point pumpout. Instead, these marinas are to be equipped with portable pumpout units or similar facilities for the dumping of portable toilet waste. BMPs suggested to control sewage discharges to surface waters are provided in Attachment G.

5. Dischargers are required to develop and implement a SWPPP in accordance with Attachment H. The SWPPP was required to be developed to comply with federal requirements to implement BMPs to achieve compliance with discharge prohibitions and storm water effluent limits. Dischargers were required to identify and implement BMPs to control storm water and non-storm water discharges.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to CWA section 402 and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It must serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260) for discharges to land treatment systems and surface waters.

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act) was amended to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is in compliance with a NPDES Permit.

On September 22, 1989, the USEPA granted the State of California, through the State Water Board and the Lahontan Water Boards, the authority to issue general NPDES permits pursuant to 40 CFR parts 122 and 123.

40 CFR section 122.28 provides for issuance of general permits to regulate a category of point sources if the sources involve the same or substantially similar types of operations; discharge the same type of waste; require the same type of effluent limitations or operating conditions; require similar monitoring; and are more appropriately regulated under a general order rather than individual orders.

A general permit for industrial and construction activities at marinas is an appropriate permitting approach for the following reasons:

1. A general permit is an efficient method to establish the essential regulatory requirements for a multiple dischargers with similar operations.

2. A general permit is the most efficient method to handle multiple marina storm water permit applications.

3. The application process for coverage under a general permit is far less onerous than that for individual permit and hence more cost effective.

4. A general permit is consistent with USEPA's four-tier permitting strategy, the purpose of which is to use the flexibility provided to the CWA in designing a workable and efficient permitting system.

5. A general permit is designed to provide coverage for a group of related facilities or operations of a specific industry type or group of industries. It is appropriate when the discharge characteristics are sufficiently similar, and a standard set of permit requirements can effectively provide environmental protection and comply with water quality standards for discharges. In most cases, the general permit will provide

sufficient and appropriate management requirements to protect the quality of receiving waters from discharges of storm water from construction sites.

There may be instances where a general permit is not appropriate for a specific discharge. The Lahontan Water Board may require a Discharger otherwise covered under the General Permit to apply for an individual permit or apply for coverage under a more specific general permit if the Lahontan Water Board determines that this Marina General Permit does not provide adequate assurance that water quality will be protected, or that there is a site-specific or other reason why an individual permit should be required.

B. California Environmental Quality Act (CEQA)

1. Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA.

2. WDRs related to operation and maintenance activities at the 12 California marinas regulate the continued operation of existing facilities. As such these waste discharge requirements are exempt from the provisions of CEQA in accordance with title 14, California Code of Regulations, chapter 3, section 15301. Expansion of the existing uses of the marina is not authorized and non-negligible expansion beyond the existing use is potentially subject to the provisions of CEQA.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** Lake Tahoe has been designated as an Outstanding National Resource Water by the State Water Resources Control Board (State Water Board) and USEPA. In 1980, the State Water Board adopted the *Lake Tahoe Basin Water Quality Plan* for the California side of the Lake. TRPA was created by Congress (P.L. 96-551), with planning authority for both the California and Nevada sides of Lake Tahoe. TRPA adopted regional "threshold standards" in 1982 and a *Regional Plan for the Lake Tahoe Basin* in 1987. In 1988, TRPA adopted a bi-state plan currently entitled: "Water Quality Management Plan for the Lake Tahoe Region," which is also referred to as the CWA section "208 Plan." The State Water Board directed the Lahontan Water Board to incorporate the most relevant provisions of the TRPA 208 Plan and the Lake *Tahoe Basin Water Quality Plan* into the *Water Quality Control Plan for the North Lahontan Basin (Basin Plan).* This effort culminated in Chapter 5 of the Basin Plan, which was adopted in 1995. The State Board rescinded the separate *Lake Tahoe Basin Water Quality Plan* in January 1996. TRPA adopted a revised "208 Plan" in 2013.

   The Basin Plan has been amended a number of times since 1995, including to incorporate the Lake Tahoe TMDL. This Order is consistent with the Lake Tahoe TMDL amendment of August 2011. The most recent amendments became effective in 2014 and 2015. Due to the 2014 amendments having implications for maintenance dredging projects and offsetting mitigation requirements in regard to prohibition exemptions for discharges to surface waters, lands below Lake Tahoe's highwater elevation and 100-year floodplains of its tributaries, and SEZs, this Marina General Permit has removed dredging requirements that were in the previous Marina General Permit. Therefore, this Marina General Permit does not authorize or regulate such discharges and dredging projects will require individual exemption

criteria and monitoring requirements that were previously incorporated in this Marina General Permit in the Order for Clean Water Act section 401 water quality certification. The 2015 amendments also have implications for person's proposing to discharge pesticides to surface waters; this General Permit does not authorize or regulate such discharges, which are subject to separate NPDES requirements and require a prohibition exemption.

Designated beneficial uses of Lake Tahoe are listed in Table 5.1-1 of the Basin Plan. The beneficial uses of Lake Tahoe are: municipal and domestic supply (MUN); agricultural supply (AGR); ground water recharge (GWR); navigation (NAV) water contact recreation (REC-1); non-contact water recreation (REC-2); commercial and sport fishing (COMM); cold freshwater habitat (COLD); cold spawning, reproduction, and development (SPWN); wildlife habitat (WILD); preservation of biological habitats of special significance (BIOL); and migration of aquatic organisms (MIGR). Additionally, the Basin Plan implements State Water Board Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for MUN. Designated beneficial uses of groundwater basin Tahoe Valley South and North are listed in Table 5.1-2 as MUN, AGR, and industrial service supply (IND).

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Lahontan Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. **Domestic Water Quality.** In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. This Order promotes that policy by requiring discharges to meet maximum contaminant levels implemented by the Basin Plan that are designed to protect human health and ensure that water is safe for domestic use.

6. **Antidegradation Policy.** Federal regulation 40 C.F.R. section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

   The State Water Board and USEPA have designated Lake Tahoe as an Outstanding National Resource Water (ONRW), which is subject to Tier 3 Antidegradation provisions as contained in 40 CFR section 131.12(a)(3). As such, no new or increased discharges to Lake Tahoe or its tributaries that would result in lower water quality are allowed, except that states may allow some limited activities that result in temporary and short-term changes in the water quality of the ONRW. Coverage under the Marina General Permit is limited to the existing marina enrollees. New Marinas Dischargers are not eligible for coverage under the Marina General Permit. No change is proposed from the existing permitted discharges and limitations and control measures are the same as those in the prior Marina General Permit, Order No. R6T-2011-0024. Thus no degradation is anticipated or authorized.

7. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 C.F.R. section 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R6T-2011-0024. Therefore this Order is in compliance with the anti-backbacksliding provisions of 40 CFR section 122.44.

8. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the designated beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

D. Impaired Water Bodies on the CWA 303(d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Lahontan Water Board plans to develop and adopt total maximum daily loads (TMDLs) that will specify Waste Load Allocations (WLAs) for point sources, and load allocations (LAs) for non-point sources, as appropriate. On August 4, 2010, the State Board adopted the 2010 303(d) list and submitted the list to USEPA for approval on October 13, 2010. USEPA partially approved the 2010 303(d) list on November 12, 2010. Lake Tahoe was listed on the CWA 303(d) list as being water quality limited due to fine particulates, nitrogen and phosphorus.

The Lahontan Water Board adopted a TMDL Basin Plan amendment for Lake Tahoe (Tahoe TMDL) on November 16, 2010.The Tahoe TMDL links the listed pollutants to a decline in deep water transparency in Lake Tahoe, and allocates pollutants by source areas within the Lake Tahoe HU according to certain categories. The Tahoe TMDL identifies the largest sources of pollutants contributing to the impairment of deep water transparency as: (1) runoff from upland urban and forest lands; (2) atmospheric deposition (nitrogen); (3) stream channel erosion; and (4) ground water (nitrogen). The Tahoe TMDL required approval by the State Water Board, the Office of Administrative Law and USEPA to be in legal effect. Final approval was obtained from USEPA on August 16, 2011.

The Marina General Permit does not cover new Marina facilities or significant increased discharges of storm water from the existing marinas. Storm water runoff from existing marina facilities is part of the urban upland pollutant load and marina operators are responsible for reducing pollutant loads from storm water discharges. At a minimum, marina operators must provide and maintain permanent storm water infiltration facilities designed to infiltrate runoff generated by the 20 year, 1-hour storm which equates to approximately one inch of runoff during a 1-hour period, or meet the alternative requirements described below. Where conditions permit, marina operators are encouraged to consider designing post-construction runoff controls in accordance with Low Impact Development (LID) techniques and infiltration facilities to accommodate runoff volumes in excess of the 20 year, 1-hour storm to provide additional storm water treatment.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

This Marina General Permit incorporates discharge prohibitions based on requirements of the Basin Plan, and previously established requirements in Order No. R6T-2011-0024. This Marina General Permit prohibits the discharge of pollutants other than storm water and non-storm water discharges authorized by this Marina General Permit or another NPDES permit.

Non-storm water discharges, unless exempted under Table 4.1-1 in the Basin Plan include a wide variety of sources, including improper dumping, spills, dewatering of dredged spoils, or leakage from storage tanks or transfer areas. Non-storm water discharges may contribute significant pollutant loads to receiving waters and are therefore prohibited unless a specific exemption is granted the Water Board. Measures to control spills, leakage, and dumping, and to prevent illicit connections must be addressed through structural as well as non-structural BMPs.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR section 122.44 requires that industrial non-municipal discharges that contain non-conventional and/or toxic pollutants regulated under the NPDES permit program comply with technology-based effluent limits. Both technology-based and WQBELs must be considered, and more stringent WQBELs must be developed if the technology-based effluent limits are not sufficient to meet water quality objectives. WQBELs for discharges authorized by this Marina General Permit were developed to ensure protection of the beneficial uses of receiving waters in the Lahontan Region.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. BPT represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. BAT represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. BCT represents the control from existing industrial point sources of conventional pollutants including TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

d. NSPS represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR section 125.3.

2. Applicable USEPA Technology-Based Effluent Limitations

a. USEPA Effluent Guidelines. USEPA has not developed numeric ELGs for marina activities (SIC Code 4493). USEPA has used best professional judgment (BPJ) to express BPT/BAT/BCT effluent limitations as specified pollution prevention control measures in the industrial storm water permit context. Control measures applicable to all industrial dischargers include, but are not limited to, the following:

i. Minimize Exposure. Exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snow melt, and storm water runoff must be minimized by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although significant enlargement of impervious surface area is not recommended). In minimizing exposure, pay particular attention to the following:

a) use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;

b) locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);

c) clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;

d) use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;

e) use spill/overflow protection equipment;

f) drain fluids from equipment and vehicles prior to on-site storage or disposal;

g) perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and

h) ensure that all washwater drains to a proper collection system (i.e., not the storm water drainage system).

ii. Good Housekeeping. Keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.

iii. Maintenance. Maintain industrial equipment and systems to avoid leaks and spills and other releases; regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in storm water discharged to receiving waters. Maintain all control measures that are used to achieve the effluent limits required by the Marina General Permit in effective operating condition. Nonstructural control measures must also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If control measures need to be replaced or repaired, the necessary repairs or modifications must be made as expeditiously as practicable.

iv. Spill Prevention and Response Procedures. Minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills if or when they occur. At a minimum, implement the following:

a) Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

b) Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

c) Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures and have necessary spill response equipment available; and

d) Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR part 110, 40 CFR part 117, or 40 CFR part 302, occurs during a 24-hour period, you must notify the National Response Center (NRC) at (800) 424-8802 in accordance with the requirements of 40 CFR part 110, 40 CFR part 117, and 40 CFR part 302 as soon as you have knowledge of the discharge. State or local requirements may necessitate reporting spills or

discharges to local emergency response, public health, or drinking water supply agencies. Contact information must be in locations that are readily accessible and available.

v. **Erosion and Sediment Controls.** Stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions you must take to meet this limit, you must place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants.

vi. **Management of Runoff.** Divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in your discharges.

vii. **Salt Storage Piles or Piles Containing Salt.** Enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. You must implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile. Piles do not need to be enclosed or covered if storm water runoff from the piles is not discharged or if discharges from the piles are authorized under another NPDES permit.

viii. **Employee Training.** Train all employees who work in areas where industrial materials or activities are exposed to storm water, or who are responsible for implementing activities necessary to meet the conditions of the Marina General Permit (e.g., inspectors, maintenance personnel). Training must cover both the specific control measures used to achieve the effluent limits in this part of the Marina General Permit, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of the Marina General Permit. USEPA recommends training be conducted at least annually (or more often if employee turnover is high).

ix. **Non-Storm Water Discharges.** Eliminate non-storm water discharges to surface waters that is not authorized by an NPDES permit or explicitly authorized in a Notice of Applicability.

x. **Waste, Garbage and Floatable Debris.** Ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

xi. **Dust Generation and Vehicle Tracking of Industrial Materials.** Take measures to prevent off-tracking of dust and industrial materials.

b. The following additional “Technology-Based Effluent Limits” apply to Water Transportation:

i. **Pressure Washing Area.** If pressure washing is used to remove marine growth from vessels, the discharge must be permitted by a separate NPDES permit (or otherwise disposed of, for example, in lined evaporation ponds).

Collect and contain the discharges from the pressure washing area so they are not co-mingled with storm water discharges.

ii. **Blasting and Painting Area**. Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

iii. **Material Storage Areas**. Store and plainly label all containerized materials (e.g., fuel, paint, solvent) in a protected, secure location, away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Consider containment or enclosure for materials stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

iv. **Engine Maintenance and Repair Areas**. Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area.

v. **Material Handling Area**. Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of storm water to material handling areas.

vi. **Drydock Activities**. Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

vii. **Employee Training**. As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel

wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

viii. **Preventive Maintenance**. As part of your preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

C. Basin Plan—Numeric Effluent Limitations

The Basin Plan (Table 5.6-1) establishes effluent limitations for discharges of storm water to surface waters, storm water collection systems, and lands within the Lake Tahoe Basin. Order No. R6T-2011-0024 contained effluent limitations, consistent with Table 5.6-1 of the Basin Plan for discharges to land treatment systems, collection systems and surface water. In addition to Table 5.6-1, the Order also included for pH a minimum (6 standard pH units) and maximum (9 standard pH units) limitation for discharges to surface waters. Effluent limitations contained in Table 5.6-1 of the Basin Plan, and/or established in Order No. R6T-2011-0024 are summarized below:

Table F-2. Storm Water Effluent Limitations from Order No. R6T-2011-0024

Parameter	Units	Maximum Concentration for Discharge to:	
		Land Treatment Systems	Collection Systems and Surface Waters
Total Nitrogen (as N)	mg/L	5	0.5
Total Phosphorus (as P)	mg/L	1	0.1
Total Iron	mg/L	4	0.5
Turbidity	NTU	200	20
Grease and Oil	mg/L	40	2.0
pH	SU		[1]

[1] The pH must range between 6 and 9 standard pH units.

D. Basin Plan Narrative Effluent Limits

Section 5.6 of the Basin Plan states, in relevant part:

"The effluent limitations at the top of Table 5.6-1 apply to storm water discharges to surface waters, and generally to surface runoff leaving a specific project site. . . . ."

"Any waters discharged into land treatment systems should not contain excessive concentrations of nutrients that may not be effectively filtered out by soil and vegetation."

E. Final Technology-Based Effluent Limitations

This Marina General Permit incorporates the applicable non-numeric effluent limitations expressed as BMPs and management measures, consistent with Order No. R6T-2011-0024. These non-numeric effluent limitations meet BPT/BCT/BAT. This Marina General Permit also contains benchmarks to ensure that the BMPs are performing at the levels that represent BPT/BCT/BAT. Furthermore, this Marina General Permit incorporates the numeric and narrative effluent limitations established in the Basin Plan, and applies the pH numeric effluent limitation for discharges to surface waters for protection of aquatic life.

Table F-3. Numeric Effluent Limitations

Parameter	Units	Maximum Concentration for Discharge to:	
		Land Treatment Systems	Surface Waters and Municipal Separate Storm Sewer Systems
Total Nitrogen (as N)	mg/L	5	0.5
Total Phosphorus (as P)	mg/L	1	0.1
Total Iron	mg/L	4	0.5
Turbidity	NTU	200	20
Grease and Oil	mg/L	40	2.0
pH	SU		[1]

[1] The pH must range between 7 and 8.4 standard units.

F. Best Management Practices

Marina activities may result in the discharge of pollutants to receiving waters through storm water runoff. These discharges can be minimized through BMPs and other pollution prevention measures that minimize contact of materials with storm water, reduce erosion and retain sediment. 40 CFR section 122.44 (k) states that NPDES permits must require BMPs to control or abate the discharge of pollutants when: (1) authorized under CWA section 304(e) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) authorized under CWA section 402(p) for the control of storm water discharge; (3) numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

Consistent with 40 CFR section 122.44(k)(4), Order No. R6T-2011-0024 included a requirement to develop and implement a SWPPP with applicable BMPs. USEPA determined that these BMPs constitute BPT/BCT/BAT technology-based effluent limits. This Marina General Permit carries over the requirements to implement a SWPPP.

This Marina General Permit requires Dischargers to also develop and implement a MPPP to minimize/prevent the discharge of pollutants from ancillary marina operations. Requirements of the MPPP may overlap with requirements of the SWPPP. Where requirements of the MPPP and the SWPPP overlap, the Discharger may incorporate requirements by reference to either the SWPPP or the MPPP.

BMPs for storm water discharges from construction activities were based on the State-wide General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ).

Order No. R6T-2011-0024 established sizing criteria for storm water collection, pre-treatment, and/or infiltration disposal facilities. These facilities were to be designed, installed and maintained to preclude a discharge from at least a 20-year, 1-hour design storm (approximately 1 inch of rainfall) from all impervious surfaces. This Marina General Permit does not include these design criteria for marina operations, as some marina owners previously completed projects to meet these requirements as approved under individual WDRs from the Lahontan Water Board. This Order includes requirements to appropriately maintain the facilities installed to meet the design requirements under the individual WDRs, in addition to any specific effluent limitations.

This Marina General Permit also carries over the following provisions from Order No. R6T-2011-0024:

1. Storm water in excess of the design storm must only be discharged to a storm drain or stabilized drainage, and must meet the storm water effluent limitations set forth in this Marina General Permit.

2. If site conditions do not allow for adequate on-site disposal, all site runoff must be treated to meet the Prohibitions in section IV, the Storm Water Effluent Limitations in section V, and the Receiving Water Limitations described in section VI of this Marina General Permit.

G. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and 40 CFR section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

40 CFR section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies.

2. Applicable and Water Quality Criteria and Objectives

As noted in section IV.C.1 of this Fact Sheet, beneficial uses of Lake Tahoe are: MUN, AGR, GWR, NAV, REC-1 and REC-2, COMM, COLD, SPWN, WILD, BIOL and MIGR. Designated beneficial uses of Lake Tahoe are listed in Table 5.1-1 of the Basin Plan.

Designated beneficial uses of ground water basins Tahoe Valley South and North are listed in Table 5.1-2 as MUN, AGR, and IND.

The Basin Plan includes both narrative and numeric water quality objectives applicable to receiving waters in the Lahontan Region. Priority pollutant water quality

criteria in the CTR are not applicable to storm water discharges, except that storm water discharges may not cause or contribute to an exceedance of the Receiving Water Limitations in section VI, of this Marina General Permit or to an impairment of water quality. Lake Tahoe is not presently listed as being water quality impaired due to exceedance of priority pollutant water quality objectives.

3. Determining the Need for WQBELs

Typical pollutants expected in discharges of storm water runoff from marina activities include total nitrogen, total phosphorus, sediment, metals (e.g., copper, iron, lead, zinc) TPH, E. coli and fecal coliform indicator bacteria. Chapter 5.6 of the Basin Plan establishes effluent limitations to be implemented in storm water permits for total nitrogen, total phosphate (as total phosphorus), total iron, turbidity, and grease and oil. These parameters serve as indicator parameters to ensure that water quality standards for biostimulatory substances, clarity, oil and grease, sediment, settleable materials, suspended materials, suspended sediment, transparency, and turbidity are not exceeded in the receiving water. Order No. RT6-2011-0024 established effluent limitations for total nitrogen, total phosphate (as total phosphorus), total iron, turbidity, and grease and oil based on the requirements of Chapter 5.6 of the Basin Plan. These effluent limitations have been carried over and serve as both technology- and water quality-based effluent limitations.

In 2010, a Total Maximum Daily Load (TMDL) was adopted for Lake Tahoe by the Water Board. The TMDL was incorporated as an amendment to the Basin Plan, following all necessary approvals on August 16, 2011, and after the Water Board re-issued the MGP in Board Order No. R6T-2011-0024. The TMDL sets out reductions in total nitrogen, total phosphorus, and fine sediment that the counties of El Dorado and Placer, the City of South Lake Tahoe, and the state highway department (California Department of Transportation or Caltrans) must meet, and those allocations are set out as limits in municipal separate storm sewer system permits. Each entity identifies how it will meet the load reductions in Pollutant Load Reduction Plans approved by the Water Board. This MGP incorporates the TMDL language by reference to the Basin Plan, and allows for implementing alternative requirements such that, where a Discharger meets the criteria identified in section VI.A.2 of this Order, and is coordinating with a municipality or Caltrans on meeting the load reductions, the effluent limits in Table 3 of section VI of this Order do not apply. Such coordination has to be set forth in the Pollutant Load Reduction Plan after an opportunity for public input and approval by the Executive Officer.

Table 5.1-3 of the Basin Plan is summarized in Attachment K of this Marina General Permit and establishes receiving water quality objectives for total nitrogen, total phosphorus, and total iron for some water bodies, which may be more stringent than the effluent limitations established in Chapter 5.6 of the Basin Plan. In addition, Table 5.1-3 establishes receiving water quality objectives for boron, chloride, sulfate, and total dissolved solids that are applicable to certain water bodies in the Lake Tahoe Hydrologic Unit. Order No. R6T-2011-0024 established the water quality objectives in Table 5.1-3 as receiving water limitations. The Lahontan Water Board found that the effluent limitations established in Chapter 5.6 of the Basin Plan, and receiving water limitations based on the water quality objectives established on

Table 5.1-3 of the Basin Plan were protective of water quality. As such, this Marina General Permit carries over these receiving water limitations.

Chapter 5 of the Basin Plan establishes a water quality objective for Lake Tahoe for pH of 7.0 standard units to 8.4 standard units. This Marina General Permit implements the water quality objective for pH as a receiving water limitation, and as an effluent limitation for discharges to surface waters.

Due to the presence of marine sanitation devices, portable heads, portable toilets, and sewage holding tanks, the synergetic effects of unknown pollutants in storm water runoff, and the potential presence of toxic materials at boat maintenance and repair areas, both bacteria and toxicity are pollutants of concern. Consistent with the water quality standards established in Chapter 5.1 of the Basin Plan for toxicity and coliform, Order No. R6T-2011-0024 established the following narrative effluent limitations:

> *"All surface flows generated at the marina which are discharged to surface waters or municipal storm water collection systems must not contain the following:*
>
> *i. Substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, or animal life; and*
>
> *ii. Coliform organisms attributable to anthropogenic sources including human and livestock sources."*

The narrative effluent limitations for toxicity and coliform organisms have been carried over to this Marina General Permit.

Chapter 5.6 of the Basin Plan requires storm water permits issued by the Lahontan Water Board to take into consideration the quality of run-on from off-site. Order No. R6T-2011-0024 required that if pollutant concentrations of waters entering the project area exceed the numerical limitations specified above there must be no increase in the constituent concentrations in the waters that are discharged from the project area. Consistent with Chapter 5.6 of the Basin Plan, this requirement has been carried over to this Marina General Permit.

H. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR section 122.44(1) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. Although the effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R6T-2011-0024, upon meeting the criteria identified in section VI.A.2 of this Order, this MGP allows for a Discharger to coordinate with a municipality or Caltrans, as an alternative to meeting effluent limits in Table 3, by demonstrating that shared stormwater treatment facilities treating discharges from the marina are sufficient to meet the municipality's or Caltrans' annual fine sediment,

total nitrogen, and total phosphorus load reduction requirements. This alternative to meeting effluent limits in Table 3 is consistent with the Lake Tahoe Total Maximum Daily Load (TMDL) amendment to the Basin Plan that became effective on April 16, 2011. Allowing a change to effluent limitations that is consistent with a TMDL is one of the exceptions to anti-backsliding provisions permitted under section 303(d)(4).

2. Satisfaction of Antidegradation Policy

Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where, the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Lahontan Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

This Marina General Permit is no less stringent than Order No. R6T-2011-0024 and does not extend the coverage of the Marina General Permit beyond the types of dischargers previously authorized to discharge under Order No. R6T-2011-0024. The Lahontan Water Board has considered antidegradation pursuant to 40 CFR 131.12 and State Water Board Resolution No. 68-16 and finds that the subject discharges are consistent with the provisions of these policies. An antidegradation analysis is not necessary for this Marina General Permit.

3. Stringency of Requirements for Individual Pollutants

This Order contains both WQBELs and technology-based effluent limitations. As described in the Basin Plan, these limits are necessary to achieve all applicable water quality objectives for receiving waters. Applicable effluent limitations are summarized in Table F-4.

Table F-4. Summary of Final Numeric Effluent Limitations

Parameter	Units	Maximum Concentration Effluent Limitations for Discharge to:	
		Land Treatment Systems[1]	Surface Waters and Municipal Separate Storm Sewer Systems
Total Nitrogen (as N)	mg/L	5	0.5
Total Phosphorus (as P)	mg/L	1	0.1
Total Iron	mg/L	4	0.5
Turbidity	NTU	200	20
Oil and Grease	mg/L	40	2
pH	SU		[2]

[1] Land treatment systems are those involving the use of plants, the soil surface, and the soil matrix for treatment of runoff.

[2] The pH must range between 7.0 and 8.4 standard pH units.

[1] Land treatment systems are those involving the use of plants, the soil surface, and the soil matrix for treatment of runoff.

4. Narrative Effluent Limitations

The narrative effluent limitations contained in this Marina General Permit are as follows:

a. Wastes discharged to land treatment systems should not contain excessive concentrations of nutrients that may not be effectively filtered out by soil and vegetation.

b. Storm water run-on to the marina property from offsite drainage should, wherever feasible, be directed away from on-site sources of pollutants or disturbed areas and discharged in a manner that maintains or improves storm water quality. The Discharger is expected to maintain and achieve compliance with the effluent limitations in this Marina General Permit for the discharges subject to the Discharger's control. The Discharger subject to storm water run-on to the property from offsite drainage must not increase the concentration of a given parameter in the co-mingled discharge from onsite and offsite sources by more than the applicable effluent limitation.

c. All surface flows generated within the marina that are discharged to surface waters or municipal storm water collection systems must not contain the following:

i. Substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, or animal life; and

ii. Coliform organisms attributable to anthropogenic sources, including human or livestock sources.

I. Benchmark Levels for Storm Water Associated with Industrial Activity

Order No. R6T-2011-0024 established benchmark parameters as an indicator of the performance of the implementation of BMPs. This Marina General Permit continues to require benchmark monitoring of storm water as an indicator of the performance of effectiveness of the implemented BMPs. Benchmark parameters included in Order No. R6T-2011-0024 were total suspended solids (TSS), specific conductance, aluminum (total), lead (total) zinc (total), and copper (total). These benchmark parameters have been carried over in this Marina General Permit.

Storm water benchmark values are summarized in Tables 4 and 5 of the Order.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

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 CFR section 131.12) and State Water Board Resolution No. 68-16. Surface water limitations in this Order are included to ensure protection of background water quality and beneficial uses of Lake Tahoe.

B. Ground Water

Chapter 3 of the Basin Plan contains numeric and narrative water quality objectives applicable to all ground waters within the Lahontan Region. State Water Board Resolution No. 68-16 applies to both surface water and ground water. Ground water limitations in this Order are included to ensure protection of background water quality and beneficial uses of the groundwater in the Lake Tahoe HU.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Lahontan Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Visual Inspections

1. Marina Facility Inspections

To ensure the proper implementation of the SWPPP and applicable BMPs, and to record site conditions for use in compliance determination, visual inspections of the marina are required at a minimum of once per month. In addition, a marina facility inspection must also be performed within 24 to 48 hours of an anticipated rain event. An annual comprehensive site inspection is required during the last week of September of each year. The inspection requirements are based on the requirements of Order No. R6T-2011-0024. These inspections and a record of corrective actions must be documented using the inspection forms provided in Attachment E to the Marina General Permit (e.g., Appendix II, III, IV, and V). Use of these inspection forms will ensure consistent inspection and reporting practices among the Dischargers and serve as a checklist for the required inspection and reporting requirements. Due to an increasing awareness and need for minimizing the spread of aquatic invasive weeds, such as Eurasian watermilfoil and curly-leaf pondweed, additional questions have been added to the Annual Report Form in Attachment J.

2. Marina Storm Water Discharge Visual Inspection

A visual inspection of the storm water discharge must be conducted four times per year. These inspections and a record of corrective actions must be documented using the inspection forms provided in Attachment E to the Marina General Permit (e.g., Appendices II, III, IV, and V). Use of these inspection forms will ensure consistent inspection and reporting practices among the Dischargers and serve as a checklist for the required inspection and reporting requirements.

B. Storm Water Monitoring

Pursuant to the requirements of 40 CFR section 122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations and to assess the impacts of the discharge on the receiving water. Sampling must be conducted according to the requirements of the MRP, and frequently enough to ensure that the effluent is in compliance with the discharge specifications of the permit. At a minimum, storm water discharges must be monitored two times per year. Additional monitoring and reporting requirements are required if samples exceed effluent limitations. The Marina General Permit requires that the first sampling event be conducted during the first half of the calendar year during an ARE, or when snow melt, rain on snow, or other runoff-producing weather conditions result in storm water discharges. The second sampling event must be conducted during an ARE in the second half of the calendar year. The second sample must be taken during the first 30 minutes of discharge. If effluent limits are exceeded, corrective actions must be taken and another sample taken within 30 days or next ARE.

This Marina General Permit continues to require benchmark monitoring of storm water as an indicator of the performance of the implementation of BMPs. At a minimum, four quarterly benchmark sampling events are required during the first year or two of coverage under the Marina General Permit. If the average of the four consecutive sample concentrations is less than the benchmark, no additional benchmark sampling is required for that benchmark parameter.

If a sample value exceeds the benchmark, the Discharger must review and upgrade the BMPs and repeat benchmark sampling for that parameter in the next quarterly sampling. This must continue until the average concentration from four consecutive quarterly benchmark samples is less than or equal to the benchmark value for that parameter. These requirements are consistent with the applicable requirements carried forward from Order No. R6T-2011-0024. This reissued Order has added language to allow marinas that are not in service during a full quarter to take the four consecutive samples over a period of two years provided corrective action is taken whenever a benchmark value has been exceeded. In this way the same number of samples will be obtained but over two years rather than one. The basis for this allowance is that some marinas are not in service during all four quarters, and sampling during in-service period is more representative of conditions affecting runoff and will provide additional time for runoff events to occur that may be sampled.

Order No. R6T-2011-0024 required monitoring outside of regularly scheduled operating hours. This Marina General Permit requires monitoring throughout the year when storm water discharges occur during the hours of 8:00 a.m. to 5:00 p.m. The sampling period is necessary to capture the discharge from the spring snow melt and to ensure that the Dischargers will have ample opportunity to collect the minimum number of samples as specified in Attachment E of this Marina General Permit.

C. Receiving Water Monitoring

Surface Water

This Marina General Permit requires the Dischargers to conduct a Marina Surface Water Monitoring Program (MSWMP) to assess the water quality in marina waters potentially affected by waste discharges. Dischargers must implement an individual

MSWMP. Sampling must be conducted according to the requirements specified in Attachment E of this Marina General Permit.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42.

40 CFR section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. 40 CFR section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR section 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

Conditions that necessitate a major modification of a permit are described in 40 CFR sections 122.62 and 123.25. Causes for modifications include the adoption and approval of new standards or regulations including Total Maximum Daily Loads and/or other revisions to the Basin.

2. Storm Water Pollution Prevention Plan (SWPPP) and Best Management Practices (BMPs)

Consistent with 40 CFR section 122.44(k)(4), dischargers are required to implement specific BMPs to control or abate the discharge of pollutants that are likely to be present in storm water runoff. This Marina General Permit requires the Discharger to develop and implement a SWPPP that establishes minimum BMPs, based on requirements carried forward from Order No. R6T-2011-0024.

3. Industrial and Construction Storm Water BMPs

Storm water BMPs must be designed to minimize the volume and pollutant loading in storm water discharged to land and/or surface water. Except as provided for in section VII.C.3.b.iii of the Marina General Permit, Dischargers must maintain

industrial storm water BMPs to contain and/or infiltrate runoff from impervious surfaces from a 20-year, 1-hour storm event.

4. Marina Pollution Prevention Plan (MPPP)

This Marina General Permit requires Dischargers to renew and implement a MPPP to minimize/prevent the discharge of pollutants from ancillary marina operations. Requirements of the MPPP may overlap with requirements of the SWPPP. Where requirements of the MPPP and the SWPPP overlap, the Dischargers may incorporate requirements by reference to either the SWPPP or the MPPP. Due to an increasing awareness and need for minimizing the spread of aquatic invasive weeds, such as Eurasian watermilfoil and curly-leaf pondweed, suggested BMPs have been added in Attachment H for the MPPP.

5. Special Provisions for Municipal Facilities (POTWs Only) – Not Applicable

6. Other Special Provisions

These provisions have been established to ensure compliance with applicable laws, regulations and ordinances; and to maximize the effectiveness of this Marina General Permit.

7. Compliance Schedules – Not Applicable

VIII. PUBLIC PARTICIPATION

The Lahontan Water Board is considering the issuance of WDRs that will serve as a NPDES permit for discharges of storm water from the twelve existing marinas on the California side of Lake Tahoe. As a step in the WDR adoption process, the Lahontan Water Board staff has developed tentative WDRs (a draft NPDES General Permit). The Lahontan Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Lahontan Water Board has notified the Dischargers and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to provide their written comments and recommendations. Notification was provided through mailing to interested parties, posting draft documents on the Water Board's website, and by publication of public notices in area newspapers. Tentative WDRs were provided for public comment on February 4, 2016, with a request for written comments by March 21, 2016. The Water Board staff conducted a public workshop concerning the draft permit on February 25, 2016, and is planning another public workshop in May 2016 to go over revisions to the draft based on the first public workshop. The tentative WDRs were revised in response to comments and the final draft permit was mailed to interested parties. Public notice of the availability of a final draft permit and public meeting to consider adoption was posted on the Lahontan Water Board website and on Lyris List.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to provide written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Lahontan Water Board at the address above on the cover page of this Order.

To be fully considered by staff and the Lahontan Water Board, written comments must be received at the Lahontan Water Board offices by 5:00 p.m. on March 1, 2016.

C. Public Hearing

The Lahontan Water Board will provide opportunity for a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	**June 8-9, 2016**
Time:	the scheduled date and approximate time will be in the agenda announcement available at the Water Board's web site at least 10 days before the meeting,
Location:	Tallman Pavilion, Tri County Fair Grounds Sierra Street and Fair Drive Bishop CA 93514

Interested persons are invited to attend. At the public meeting, the Lahontan Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/lahontan/ where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Lahontan Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Lahontan Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Lahontan Water Board by calling (530) 542-5400.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Lahontan Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to **Tobi Tyler**, **Water Resource Control Engineer**, at **(530) 542-5435**.

ATTACHMENT G – STORM WATER POLLUTION PREVENTION PLAN

I. OBJECTIVES

The Storm Water Pollution Prevention Plan (SWPPP) must be revised and submitted with the application for reissued coverage under the Marina General Permit to comply with the requirements described in this attachment, including federal requirements to implement control measures and best management practices (BMPs). In addition, the SWPPP must be amended when necessary to meet the following objectives:

A. Identify all potential pollutants and their sources.

B. Identify all low-threat, non-storm water discharges that are not required to be covered under a separate Lahontan Water Board Permit and describe all efforts to eliminate low-threat, non-storm water discharges, including those listed in Table 4.1-1 of the Basin Plan. Where low-threat, non-storm water discharges cannot be eliminated, describe all efforts to control or treat non-storm water discharges such that they do not cause or contribute to a violation of Discharge Prohibitions (section IV), Effluent Limitations (section V) or cause or contribute to violations of Receiving Water Limitations (section VI) of the Marina General Permit.

C. Identify, construct, implement and maintain BMPs and/or implement other control measures to reduce or eliminate pollutants in storm water discharges and authorized low-threat, non-storm water discharges. Ensure that the combination of BMPs and control measures are effective and result in attainment of the BPT/BCT/BAT standard.

D. Provide training to the Storm Water Pollution Prevention Team at least once per year and as necessary to ensure effective implementation of the SWPPP, including procedures for conducting inspections, monitoring, BMPs maintenance and repair, and implementation of other pollution prevention measures contained in the SWPPP.

E. Provide any proposed plans for construction projects on the marina property involving less than one acre of disturbance.

II. LAHONTAN WATER BOARD AUTHORIZATION

The SWPPP must be revised and submitted with the Notice of Intent (NOI) as described in section II of the Marina General Permit. The Lahontan Water Board may notify the Discharger if the SWPPP does not meet one or more of the minimum requirements of this section and require revision. The SWPPP for industrial activities at the Marina must be developed and signed by a person or persons familiar with the marina operations and in accordance with the Signatory Requirements as specified in Attachment D, section V.

For coverage under the Marina General Permit, the SWPPP must contain and or meet the following elements:

A. Storm Water Pollution Prevention Team (SWPPT),

B. Site description with all the elements in section III.B of this Attachment included,

C. Summary of potential pollutant sources,

D. Description of control measures,

E. Schedules and procedures for inspections and monitoring,

F. Any proposed plans for construction activities involving less than one acre, and

G. Signature requirements.

When the SWPPP refers to procedures in other facility documents such as a Spill Prevention, Control and Countermeasures (SPCC) Plan or other Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant portions of those documents must be kept with the SWPPP.

III. MARINA INDUSTRIAL STORM WATER SWPPP REQUIREMENTS

A. Storm Water Pollution Prevention Team (SWPPT)

The SWPPP must identify the staff members (by name and title) that comprise the marina's SWPPT well as their individual responsibilities for maintaining control measures and taking corrective actions when required. Each member of the SWPPT must have access to either an electronic or paper copy of the SWPPP.

B. Marina Description

The SWPPP must contain the following information about the marina facility:

1. Activities at the marina. Provide a description of the activities at the marina, including all activities that have a potential to result in leaks or spills, or discharge of pollutants to storm water or surface water, including but not limited to fueling, sewage and bilge pump-out stations, boat maintenance and washing areas.

2. General location map. Provide a general location topographic map (e.g., U.S. Geological Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your storm water discharges.

3. Site map. Provide a map of appropriate size to clearly show **all** of the following elements:

a. The facility property lines.

b. The size of the property in acres.

c. The location and extent of significant structures and impervious surfaces.

d. Directions of storm water flow (use arrows).

e. Location of all existing structural control measures and BMPs.

f. Location of all receiving waters in the immediate vicinity of the marina.

g. Location of all storm water conveyances including ditches, pipes, and swales.

h. Location of potential pollutant sources.

i. Location of where spills and leaks have occurred.

j. Areas of soil disturbance.

k. Location of all storm water monitoring points.

l. Location of all storm water inlets and all designated outfalls (all outfalls where storm water may be discharged from), with a unique name and/or number identification code for each outfall. If the inlet is to a land-based or other treatment system, the location of any overflow, spillway, or bypass flow path or outfall to surface waters and/or drainage systems not under the Discharger's control must also be clearly identified.

m. Location of municipal separate storm sewer systems, if applicable, to which your storm water discharges.

n. Locations and descriptions of all non-storm water discharges.

o. Locations of the following activities where such activities are exposed to precipitation:

i. Boat and equipment maintenance areas;

ii. Boat wash areas;

iii. Locations where fuel and chemical products or waste are stored;

iv. Fueling areas;

v. Sewage and bilge water pump-out stations, and stations where storage tanks are pumped to fill or empty bulk tanks of fuel or to empty waste;

vi. Snow storage areas; and

vii. Locations and sources of run-on to the marina from adjacent property that contains significant quantities of pollutants.

C. Summary of Potential Pollutant Sources

For each area identified where industrial activities are exposed to precipitation provide the following information:

1. Activities in the Area. Provide a list of industrial activities exposed to storm water (e.g., boat maintenance, fueling, sewage and bilge pumpout).

2. Pollutants. A list of pollutants or constituents associated with each activity. The pollutant list must contain all significant materials that have been handled, treated,

stored, or disposed, and that have been exposed to storm water in the 3 years prior to this revision of the SWPPP.

3. Spills and leaks. Document where potential spills and leaks could occur that would contribute to pollutants to storm water discharges, and the corresponding outfall(s) that would be affected. Document spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a storm water conveyance, in the 3 years prior to this SWPPP revision.

4. Low-Threat, Non-Storm water Discharges as described in Table 4.1-1 in the Basin Plan. Document the presence of all low-threat, non-storm water discharges, and describe efforts to eliminate or reduce the volume of each identified non-storm water discharge. Explain why the discharge cannot be eliminated. Provide a description of each discharge and describe why they:

a. Comply with the prohibitions in section IV of the Marina General Permit.

b. Do not cause or contribute to a violation of any water quality standard.

c. Do not require a non-storm water order as issued by the Lahontan Water Board.

d. Do not violate any other provision of the Marina General Permit.

5. Provide the following information in support of the assessment of non-storm water discharges:

a. The date of the any evaluation for each identified non-storm water discharge.

b. A description of the evaluation criteria used.

c. A list of outfalls or onsite drainage points that were directly observed during the evaluation.

d. The different types of non-storm water discharge(s) and source locations.

e. The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example landscape watering was reduce by the planting of drought tolerant plants and use of mulch.

6. De-icer Storage. Document the location of any salt or other de-icer storage piles used for de-icing or other purposes, and describe how the de-icer storage area is enclosed or covered to prevent contact with precipitation and storm water runoff.

7. Waste, Garbage and Floatable Debris. Describe the location where garbage, and floatable debris may accumulate.

8. Dust Generation and Vehicle Tracking of Industrial or Construction Waste. Describe areas where dust and waste (e.g., sand blasting waste, paint chips, oil spill residues may be present at the facility.

9. Snow Storage Areas. Describe the drainage characteristics of all snow storage areas and treatment and detention measures taken to prevent discharge of melting snow accumulated from parking areas and roadways.

D. Control Measures

The combination of Control Measures, which may include structural BMPs, must provide for the containment or infiltration of the design storm water volume as specified in section VII.C.3 of the Marina General Permit, where possible. If the site conditions do not allow for the on-site disposal of the design storm water volume, then the Control Measures must ensure that the site runoff will meet the Discharge Prohibitions (section IV), Storm Water Effluent Limitations (section V), and will not cause or contribute to violations of the Receiving Water Limitations (section VI) of the Marina General Permit. At a minimum, the following control measures are required where applicable:

1. **Minimize Exposure.** Minimize exposure of boat and equipment maintenance and storage areas, by:

   a. Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on from these areas.

   b. Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (e.g., confine leak prone equipment to protected areas.)

   c. Clean up spills and leaks promptly using dry methods

   d. Remove leaky equipment from service until leaks are repaired; use drip pans and absorbents under leaky equipment only for slow minor drips

   e. Use spill/overflow protection equipment when fueling

   f. Drain liquids from equipment prior to disposal

   g. Perform all cleaning and maintenance activities under cover, in bermed areas, and use tarps or other barriers to prevent runoff and contain sanding waste and paint overspray

   h. Ensure that all wash water drains to a proper collection system (i.e., not the storm drain).

   THE DISCHARGE OF BOAT WASH WATER TO SURFACE WATERS IS NOT AUTHORIZED UNDER THE MARINA GENERAL PERMIT. Boat wash water is defined for the purposes of the Marina General Permit as water that has come in contact with, or is used for rinsing or cleaning of, vessels, whether chemical cleaning products are used or not. Boat wash water must not be co-mingled with storm water and must be discharged under a separate permit, discharged to the sanitary sewer in accordance with applicable industrial pre-treatment requirements, or disposed of otherwise in accordance with applicable laws and regulations.

2. **Good Housekeeping.** Keep all exposed areas clean that are potential sources of pollutants, using such measures such as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers in bermed containment areas.

3. **Maintenance**. Regularly inspect, test, maintain and repair all industrial equipment and systems to avoid situations that may result in leaks, spills and other releases of pollutants to storm water discharged receiving waters. Maintain all control measures that are used to achieve the effluent limits required by the Marina General Permit in effective operating condition. Non-structural control measures must also be diligently maintained (e.g., spill response supplies are well stocked, personnel appropriately trained, etc.)

4. **Spill Prevention and Response Procedures.** Minimize the potential for leaks, spills and other releases that may be exposed to storm water and develop plans for effective response to such spills when they occur. At a minimum, implement the following:

   a. Procedures for plainly labeling containers (e.g., “Oily Bilge Water,” “Used Oil,” etc.)

   b. Preventative measures such as barriers between material storage and traffic areas, secondary containment, and procedures for material storage and handling

   c. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Marina staff must always be available to respond to spills from boat owner activities. Employees must be on call (if after hours) and trained in spill response procedures.

   d. Procedures for notification of appropriate facility personnel, emergency response agencies and regulatory agencies. In the event of a significant release or threatened release of fuel or hazardous material, the Marina must first report the incident to the local emergency response agency (9-1-1 or the local fire department), then the California Emergency Management Agency (Office of Emergency Services) at 1-800-852-7550, and the Lahontan Water Board Executive Officer as described in section VII.A.13 and Attachment D, section V.E. of the Marina General Permit. If the spill or release of oil or a hazardous substance is in an amount equal to or in excess of the reportable quantity established under 40 CFR part 110, 40 CFR part 117, or 40 CRR part 302, the Marina must also notify the National Response Center at (800) 424-8802, in accordance with the requirements of 40 CFR part 110, 40 CFR part 117, or 40 CFR part 302.

5. **Erosion and Sediment Controls.** Stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and resulting discharge of pollutants. Flow velocity dissipation devices may be needed at discharge locations where necessary to reduce erosion and/or to settle out pollutants prior to discharge (and may be subject to additional permitting requirements if placed in surface waters or SEZs). See Industrial Storm Water Fact Sheet series (www.epa.gov/npdes/storm water/msgp), National Menu of

Storm Water BMPs (www.epa.gov/npdes/storm water/menueofbmps), and National Management Measures to Control Nonpoint Source Pollution from Urban areas (www.epa.gov/owow/nps/urbanmm/indes.html).

6. **Management of Runoff.** Divert, infiltrate, reuse, contain, or otherwise reduce storm water runoff, to minimize pollutants in your discharges.

7. **De-icer Storage Piles.** De-icer storage piles must be covered or enclosed.

8. **Waste Garbage and Floatable Debris**. Ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

9. **Dust Generation and Vehicle Tracking of Industrial Materials.** Take measures to prevent off-tracking of dust and industrial materials.

10. **Describe waste management and disposal practices**. All waste must be disposed of in accordance with all applicable laws and regulations on a routine and timely manner to minimize the volume of waste stored at the marina facility and the potential for releases of water materials to storm water or surface water.

11. **Work areas for boat repair**. Work areas for boat repair must be clearly marked and when possible work must be performed inside a building. If painting and blasting are performed outside, plastic barriers or tarpaulin curtains must surround the activity during blasting and painting to contain debris, overspray, and spillage. When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips.

12. **Pressure Washing Area.** If pressure washing is used to remove marine growth from vessels, the discharge must be permitted by a separate NPDES permit or otherwise disposed of in the sanitary sewer in compliance with pre-treatment requirements or by other means in compliance with all applicable laws and regulations (e.g., in lined evaporation ponds). Collect and contain the discharges from the pressure washing area so they are not co-mingled with storm water discharges.

13. **Hull Cleaning**. Hulls covered with bottom paint must not be scraped underwater or over waters where wastes could be carried by air to waters. All waste associated with hull maintenance and cleaning must be collected and disposed of in accordance with all applicable laws and regulations. Vacuuming is the preferred method of collecting sanding waste.

14. **Material Storage Areas.** Store and plainly label all containerized materials (e.g., fuel, paint, solvent) in a protected, secure location, away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Consider containment or enclosure for materials stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

15. **Engine Maintenance and Repair Areas.** Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling storm water runoff collected from the maintenance area.

16. **Material Handling Area.** Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of storm water to material handling areas.

17. **Drydock Activities.** Routinely maintain and clean the drydock to minimize pollutants in storm water runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

18. **Employee Training.** As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

19. **Preventive Maintenance.** As part of your preventive maintenance program, perform timely inspection and maintenance of storm water management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

E. Control Measure Description and Design

The SWPPP must contain a description and design specifications for the selection, location, sizing and pollutant reductions anticipated for each structural BMP at the marina facility as identified on the site map. When selecting or modifying a BMP or other control measure, consider the following:

1. Preventing storm water from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from storm water.

2. Using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in your storm water discharge

3. Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the effluent limits.

4. Minimizing impervious surface areas at the marina, infiltrating runoff and improving ground water recharge, providing care is taken to avoid ground water contamination, is the preferred strategy.

F. Determining Need and Optimal Location for New BMPs. Conduct an assessment and create a list of potential pollutant sources and identify areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges. At a minimum, when designing structural BMPs consider:

1. The location, type, condition and performance history of existing BMPs. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges.

2. The quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

3. The degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

4. The direct and indirect pathways that pollutants may be exposed to storm water. This must include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

IV. MARINA CONSTRUCTION STORM WATER SWPPP REQUIREMENTS

A. Erosion and Sediment Controls

The SWPPP for construction projects covered by the Marina General Permit must include the following additional items and are also required to implement the BMPs described in Appendix I.

1. An outline of areas of vegetative soil cover or native onsite vegetation that will remain undisturbed during construction.

2. A description of soil stabilization practices. Vegetative measures must be designed to preserve existing vegetation where practicable, and to revegetate and/or mulch open areas as soon as practicable after grading or construction. In developing soil stabilization practices, the Discharger must consider: temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, protection of trees, or other soil stabilization procedures. At a minimum, the operator must implement these practices on all disturbed areas during the rainy season.

3. Descriptions and illustrations of control practices designed to prevent a net increase of sediment load in storm water discharge. In developing control practices, the Discharger must consider a full range of erosion and sediment controls such as detention basins, silt fences, earth dikes, brush barriers, velocity dissipation devices, drainage swales, check dams, subsurface drain, pipe slope drain, level spreaders, storm drain inlet protection, rock outlet protection, sediment traps, temporary sediment basins, or other controls that may reduce erosion and sediment discharge to pre-construction levels. Sandbag dikes, silt fences, or equivalent controls practices are required for all sideslope and downslope boundaries of the construction area. The Discharger must consider site specific and seasonal conditions when designing the control practices.

4. Control practices to reduce the tracking of sediment onto public and private roads. These roads must be inspected and cleaned as necessary.

5. Control measures to prevent soil compaction outside of the active work area (e.g., parking vehicles and storing equipment on existing impervious surfaces.)

6. Control practices to reduce wind erosion.

7. A proposed schedule to implement erosion and sediment control measures.

V. INSPECTIONS, MAINTENANCE AND PREPARATION FOR RAIN EVENTS

The SWPPP must include inspection and BMP maintenance and repair procedures to accompany the Monitoring and Reporting Program in Attachment E. Preparing for sampling procedures must begin 24 hours prior to an anticipated rain event. An anticipated rain event is any weather pattern that is forecasted to have a 50 percent or greater probability of producing precipitation as rain in the project area and that is separated by at least seven days from the previous weather pattern that produced rain (i.e., separate weather systems). Once per week the Discharger must obtain a printed copy of the precipitation forecast from the National Weather Service Forecast Office by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast. The weekly printout must be maintained with the marina inspection records as described in the Monitoring and Reporting Program (Attachment E of the Marina General Permit).

VI. IMPLEMENTATION SCHEDULE

A. The Dischargers enrolled under the preceding Order must continue to implement their existing SWPPP and must implement any necessary revisions to their SWPPP in accordance with this Attachment upon issuance of a NOA from the Lahontan Water Board under the terms of this Order.

B. For minor construction activity involving a change of responsibility for compliance with requirements for activity covered by the Marina General Permit, the responsible person must apply for coverage under the Marina General Permit.

VI. AVAILABILITY

The SWPPP must be kept on site and made available upon request of a representative of the Lahontan Water Board or any local storm water management agency which receives the storm water discharge.

VII. REQUIRED CHANGES

A. The discharger must amend the SWPPP whenever there is a change in ownership, construction, or operations, which may affect the discharge of pollutants to surface waters, ground waters, or a municipal storm drain system. The amended SWPPP must be submitted to the Lahontan Water Board 30 days prior to the date when the change is to occur.

B. The SWPPP must be amended if it is found to be in violation of any condition of the Marina General Permit, or has not achieved the general objectives of controlling pollutants in storm water discharges. The amended SWPPP must be submitted no later than 30 days after the determination of violation or non-achievement to the Lahontan Water Board Executive Officer for review.

C. The Lahontan Water Board, or local agency with the concurrence of the Lahontan Water Board, may require the discharger to amend the SWPPP.

VIII. TRAINING

The SWPPP must include procedures to ensure that all inspections required in section III of the Attachment E of this Marina General Permit, and maintenance and repair required above, are conducted in a way that is consistent with the requirements of the Marina General Permit. These procedures must include identification of specific personnel and the training required to perform inspections, maintenance, and repair. All persons, including members of the Pollution Prevention Team, must be trained or attend refresher training to be conducted at least once each year. Records documenting training, attendance, and a certification that the attendees understand the materials presented, the requirements of the SWPPP and related inspection procedures must be maintained on site and available for inspection by the Lahontan Water Board staff. Facilities that fail to provide such documentation at the time of inspection, in the Annual Report, or as otherwise required will be considered in non-compliance of training requirements.

IX. LIST OF CONTRACTORS/SUBCONTRACTORS

The SWPPP must contain a list of all contractors and subcontractors responsible for implementing the SWPPP, where applicable. This information must be added to the SWPPP once the contractors and subcontractors selected to implement the SWPPP are determined.

X. OTHER PLANS

This SWPPP may incorporate, by reference, the appropriate elements of other plans required by local, state or Federal agencies. A copy of any requirements incorporated by reference must be kept at the Marina.

XI. PUBLIC ACCESS

The SWPPP is considered a report that must be available to the public under section 308(b) of the CWA. Upon request by members of the public, the Discharger must make available for review a copy of the SWPPP directly to the requestor.

XII. PREPARER

The SWPPP must include the signature and title of the person responsible for preparation of the SWPPP, the date of initial preparation, and the person and date for each amendment thereto.

Attachment G, Appendix I

I. BMPs Applicable to Construction Projects at Marinas That Disturb Less Than One Acre of Land

A. Storm water BMPs must be maintained to minimize the volume and pollutant loading in storm water discharged to land and/or surface water.

B. Storm water must only be discharged to a storm drain or stabilized drainage, and must meet the storm water effluent limitations set forth in the Marina General Permit.

C. If site conditions do not allow for adequate on-site disposal, all site runoff must be treated to meet the Prohibitions in section IV, the Storm Water Effluent Limitations in section V, and to ensure that storm water discharges do not cause or contribute to Receiving Water Limitations described in sections VI.

D. The Discharger must immediately clean up and transport to a legal site any spilled petroleum products to the maximum extent practicable.

E. Where sediment basins are to be used, the discharger must design basins at a minimum, according to the methods provided in the California Storm Water Quality Association (CASQA) Construction BMP Guidance Handbook.

F. The Discharger must conduct an assessment and create a list of potential pollutant sources and identify areas of the site where additional BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant list must be kept with the SWPPP and must identify all non-visible pollutants which are known, or should be known, to occur on the construction site. At a minimum, when developing BMPs, the discharger must document that that following items were included when developing the applicable control measures:

1. Consider the quantity, physical characteristics (e.g., liquid, powder, solid), and locations of each potential pollutant source handled, produced, stored, recycled, or disposed of at the site.

2. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

3. Consider the direct and indirect pathways that may expose pollutants to storm water. This must include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

4. Ensure retention of sampling, visual observation, and inspection records.

5. Ensure effectiveness of existing BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges.

K. Dischargers must implement measures to prevent the discharge or contamination of storm water runoff by all non-storm water discharges.

L. All run-on from offsite, to the maximum extent possible, must be directed away from all disturbed areas

II. Construction Storm Water BMPs

Construction Storm Water BMPs must include the following:

A. Prior to the initiation of any construction related activities the Discharger must install temporary erosion control facilities to prevent transport of earthen materials and other wastes off the property and prevent off-site tracking of loose construction and landscape materials.

B. Traffic to and from the project must be limited through entrances and exits that employ effective controls to prevent offsite tracking of sediment, dust and other visible pollutants.

C. Access roads must be inspected at a minimum of once per day during periods of active construction and prior to any rain event.

D. Dischargers must clean pavements in such a manner as to prevent unauthorized non-storm water discharges from reaching surface waters or drainage control systems in violation of limitations and requirements.

E. Temporary gravel bag dikes, fiber rolls, or filter fabric fence must be used as necessary to prevent discharge of earthen materials from the site during periods of precipitation or runoff.

F. The exposure of construction materials to precipitation must be minimized. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g., poles, equipment pads, cabinets, conductors, insulators, bricks).

G. Ground compaction and disturbance activities must be prevented in unpaved areas not subject to construction. All non-construction areas must be protected by fencing or other means to limit access. These facilities must be inspected periodically and must be repaired when necessary.

H. Surface flows from the project site must be controlled to prevent downstream erosion at any point. All authorized storm water runoff which leaves the site must be discharged to a storm drain or stabilized drainage.

I. Permanent storm water runoff collection, treatment, and/or infiltration disposal facilities must be designed, installed, and maintained to maximize fine sediment and nutrient (nitrogen and phosphorous) removal.

J. By no later than October 15 of each year, the Discharger must provide a permanent or temporary (if project is incomplete) stabilization of all disturbed or eroding areas by completing construction of mechanical stabilization measures and initiating revegetation plans. Revegetation must consist of seeding, planting, mulching, initial fertilization as

needed, and initial watering as needed, to ensure soil stabilization from erosion throughout the post-construction period.

K. The disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the storm drain system must be prevented.

L. Sanitation facilities (e.g., portable toilets) must be contained to prevent the discharge of pollutants to the storm water drainage system or receiving water. Sanitation facilities must be cleaned/replaced as necessary, and inspected regularly for leaks and spills.

M. Waste disposal containers must be securely covered at the end of every business day and during a rain event.

N. Discharges from waste disposal containers to the storm water drainage system or receiving water are prohibited.

O. Stockpiled earthen or waste material must be contained and securely protected from wind and rain at all times unless actively being used.

P. Procedures and BMPs that effectively prevent and address hazardous and non-hazardous spills.

Q. A spill response and implementation element of the SWPPP prior to commencement of construction activities. The SWPPP must require that:

1. Equipment and materials for cleanup of spills must be available on site and that spills and leaks must be cleaned up immediately and disposed of properly according to a written plan; and

2. Ensure that appropriate spill response personnel are assigned and trained.

3. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

4. All disturbed areas must be adequately restabilized or revegetated**.** Revegetated areas must be continually maintained in order to assure adequate growth and root development until vegetation becomes established. When applicable, the following mitigation measures may be implemented:

5. Depending on the level of disturbance, wood chip or pine needle mulch may be applied on disturbed surfaces in lieu of vegetation;

6. Tackifier must not be applied within 100 feet of the high water line;

7. Whenever practical seeds collected from the project site area should be added to the seed mix being applied during revegetation; and

8. Whenever practical, natural revegetation and native mulch will be the preferred and most utilized method of stabilization.

9. All slopes subject to erosion must be stabilized.

10. The Discharger must apply linear sediment controls along the toe of the slope, face of the slope, and at the grade breaks of exposed slopes to comply with sheet flow lengths in accordance with Table G-1.

Table G-1. Maximum Sheet Flow Length

Slope Percentage	Sheet Flow Length Not To Exceed:
0-25%	20 ft.
25-50%	15 ft.
Over 50%	10 ft.

11. The Discharger must discontinue the application of any erodible landscape material during periods of precipitation.

12. The Discharger must apply erodible landscape material at quantities and application rates according to manufacture recommendations or based on written specifications by knowledgeable and experienced field personnel.

13. All loose piles of soil, silt, clay, sand, debris, or other earthen materials must be protected in a reasonable manner to prevent the discharge of these materials to waters of the State.

14. Chemicals must be stored in watertight containers with appropriate secondary containment to prevent any spillage or leakage, or in a completely enclosed storage shed.

15. Oil, grease, and fuel must be prevented to leak into the ground, storm drains or surface waters.

16. All mechanical equipment and vehicles must be fueled, maintained and stored in an area fitted with appropriate BMPs. Vehicle wash water must be prevented from discharging to surface waters or an MS4 drainage system.

17. Storm drain inlets and perimeter controls, runoff control BMPs, and pollutant controls at entrances and exits (e.g., tire washoff locations) must be maintained to ensure ongoing effectiveness.

18. The Discharger must immediately clean up and transport to a legal disposal site any spilled petroleum products or petroleum–contaminated soils to the maximum extent practicable.

19. Erosion control facilities must be installed in conjunction with a routine maintenance and inspection program to provide continued integrity and proper performance of erosion control facilities.

20. Dust must be controlled to prevent the transport of such material off the project site, into any surface water, or into any drainage course.

21. Dischargers must implement effective wind erosion controls.

22. At or before completion of a construction project, all surplus or waste earthen materials must be removed from the project site and deposited only at a legal,

authorized point of disposal or restabilized onsite in accordance with erosion control plans previously approved by the Executive Officer.

23. Drainage swales disturbed by construction activities must be stabilized by appropriate soil stabilization measures to prevent erosion.

24. All inspection, maintenance repair and sampling activities representing the discharger at the project location must be performed or supervised by a qualified person.

25. Deficient control measures identified during inspections must be described, together with a schedule for the needed actions to remedy the deficiency, and must be remedied in accordance with the schedule or as directed by the Lahontan Water Board.

ATTACHMENT H – MARINA POLLUTION PREVENTION PLAN

I. The Dischargers must design and implement a Marina Pollution Prevention Plan (MPPP) to prevent the discharge of pollutants from boats or marina operations directly to surface waters of the Lake Tahoe HU. Specific control measures designed to prevent the discharge of sewage or petroleum products from boats or marina operations (e.g., fueling and pump out facilities) are provided in this attachment. In addition, the Dischargers are encouraged to review the many publications on "Clean Marinas" offered by USEPA, the California Coastal Commission, and other states. Two helpful informational sources include the *Marina Toolkit*, developed by the California Coastal Commission (2004) and the *Oregon Clean Marina Guidebook,* both of which are available online.

A. The MPPP must include at a minimum the following BMPs:

1. **Operate and Maintain Sewage Pumpout Facilities.** The Marina General Permit requires all of the Dischargers to install, maintain, and make accessible to the public, vessel sewage pumpout facilities. Fixed-point sewage pumpout facilities are required in marinas that lease 25 percent or more of their slips to cruisers, houseboats, and other water craft equipped with portable heads, toilets, or holding tanks and/or accommodate more than 100 boats with holding tanks. Marinas that operate as small boat harbors and for the most part accommodate boats under 26 feet in length are not required to have a fixed-point pumpout. Instead, these marinas (small boat harbors) must be equipped with portable pumpout units or similar facilities for the dumping of portable toilet waste. Dischargers not using fixed-point pumpouts must document in the MPPP the total number of slips and the number of slips leased or occupied by cruisers, houseboats, and other water craft equipped with portable heads, toilets, or holding tanks. Sewage pumpout stations must be staffed by trained Marina personnel.

2. **Dye Tablets or Other Measures to Prevent or Detect Discharges of Sewage**. The Discharger must implement measures to prevent the discharge of sewage or a means to detect illicit discharges. These measures may include locking or disabling the sewage discharge valves or inserting dye tablets in Marine Sanitation Devices (MSDS) and portable toilets used on private vessels not under the control of the Discharger, other than as a condition of the lease or launch agreement.

3. **Control spread of Aquatic Invasive Plant Species in the marina.** Description of the types of BMPs that will be used at the marina, such as:

    a. Having marina staff annually trained in the League to Save Lake Tahoe's Eyes on the Lake Program,

    b. Completing annual presence/absence surveys and map of survey area during the growing season for aquatic plants (June – September),

c. Informing boaters about aquatic invasive species including current locations of infestations and how to avoid spreading them,

d. Completing the Eyes on the Lake boating questionnaire and providing it with the Annual Report,

e. Having marina staff periodically skim aquatic plant fragments from the surface waters of the marina throughout the day, paying special attention to the entrance/exit of the marina.

4. **Control launch ramps and inspect boats for the control of Aquatic Invasive Species (AIS).** Marina operators are required to control access to all launch ramps and facilities at all times. During operating hours, the launch facilities must be staffed at all times with personnel trained in inspecting boats for the potential risk of AIS. Access to launch facilities must be physically prevented during hours when the facilities are not staffed. All boats must be inspected for AIS before launch by trained personnel. Boats that are determined to present a risk of carrying AIS must be thoroughly washed (including all holding tanks, livewells, bilges, and any other areas subject to contamination by AIS) with hot water (140 degrees F). Wash water may be recycled or disposed of offsite in accordance with the Discharger's written plan. Discharge of boat wash water to surface waters is strictly prohibited.

5. **Educate and Provide Boaters Incentives for AIS prevention.** Dischargers must provide boaters with educational materials and incentives to decontaminate their boats prior to presenting them for launch. Boat washing delays boat launch and has the potential to generate a large volume of wastewater that may become problematic to manage. Minimizing the need for boat washing will reduce delays at launch and reduce the cost of managing wash waters.

6. **Control of Bait Containers for the Prevention of the Spread of AIS.** Marina operators will develop BMPs to prevent the spread of AIS through live bait and bait containers.

7. **Styrofoam and Plastic Containers.** Dischargers must discourage the use of styrofoam and plastic containers and/or provide means to control litter and trash from being discharged to surface waters.

8. **Fish Cleaning Waste.** Dischargers must implement measures to prevent the discharge of fish cleaning wastes to marina waters.

9. **Control of Boat Sanding and Painting Activities.** Work areas for boat repair must be clearly marked and when possible work must be performed inside a building. If painting and blasting activities are conducted outside, plastic barriers or tarpaulins curtains must surround the activity during blasting and painting to contain debris, overspray, and spillage. When necessary, regularly clean storm water conveyances of deposits of abrasive blasting debris and paint chips. Hulls covered with bottom paint must not be

scraped under water. All waste associated with hull maintenance and cleaning (sanding, debris, etc.) should be collected and disposed of in accordance with all applicable laws and regulations. Vacuuming is the preferred method of collecting sanding waste. The discharge of wash waters is not authorized under this Order. Wash water must not be allowed to co-mingle with storm water runoff.

10. **Label Waste Containers**. Dischargers must make available clearly labeled receptacles for the disposal of waste oil, waste gasoline, used antifreeze, and waste diesel**.**

11. **Dischargers must provide boater education materials** as an attachment to the slip lease agreement and at launch. Materials must include at a minimum:

    a. selection of less toxic products (e.g., propylene glycol as opposed to ethylene glycol, alternatives to copper containing anti-fouling paints, etc.),

    b. methods for minimizing the amount of oil that accumulates in bilge water,

    c. prohibitions and logic for prohibitions of discharge of sewage and oily bilge water

    d. methods for minimizing the spread of AIS,

    e. limitations on boat washing,

    f. control of pet waste,

    g. the impact of trash on the aquatic environment and the prohibition of styrofoam and plastic bags,

    h. procedures for storing boats, and

    i. a summary of potential fines and penalties for illegal discharges and sunken vessels.

12. **Maintenance of Landscaped Areas**. The Dischargers must maintain landscaped areas using drought resistant plants and, minimize the use of fertilizer and pesticides.

13. **Control of Pet Waste.** Dischargers must implement BMPs to prevent the discharge of pet waste to storm water or surface water. Such measures may include providing bags and receptacles for pet waste and good housekeeping measures.

14. **Fueling Operations. Marinas must implement the following BMPs related to fueling operations:**

    a. If the facility is storing petroleum in an aboveground storage tank, the Discharger must comply with the Aboveground Petroleum Storage Act, if applicable, which became effective January 1, 1990.

b. Fuel tanks at the marina must be equipped with automatic shut-off nozzles. Marina staff and patrons who perform fueling should be educated so overfilling does not occur. To minimize the discharge of overflowing fuel, the Discharger may attach vents on fuel tanks that act as fuel/air separators.

c. Where appropriate, spills from the fuel nozzle can be minimized by wrapping the nozzle with fuel absorbent pads.

d. Fuel absorbent pads and booms must be placed in a well-marked area near or on the fueling dock. The availability of pads and booms should be checked regularly to ensure that an adequate supply is on hand in case of emergency fuel spill.

e. Soiled absorbent pads should be disposed of properly by placing the pads in receptacles properly labeled as hazardous waste. If receptacles are not available on-site, absorbent pads should be safely stored and immediately disposed of at the refuse company as household hazardous waste.

15. **Motorized Watercraft Operation.** Marina operators must provide adequate signage, distribute pamphlets, include inserts in billings, and/or verbally educate patrons on the following Tahoe Regional Planning Agency (TRPA) ordinances:

    a. After October 1, 2001, the following engine types are no longer allowed on all lakes in the Tahoe Region:

        i. Any two-stroke engine that does not meet USEPA 2006 or the California Air Resources Board 2001 emission standard including:

            1) Electronically Fuel Injected (EFI) two-stroke engines,

            2) Rotax Fuel Injected (RFI) two-stroke engines,

            3) Two-stroke auxiliary sailboat engines, and

            4) Two-stroke engines 10 horsepower or less.

16. **Bilge Pumping.** Motorized watercraft contain low points in the hull called the bilge area. Bilge areas typically collect oil, grease, gasoline, and other wastes. Boat bilges that have automatic and manual pumps that empty directly into the water may be in violation of waste discharge prohibitions of the Basin Plan and this Order. When a bilge pump is activated, the oil and grease from the operation and maintenance of the engine discharges into the water. Releasing wastes from bilge pumping (oil, grease, and other materials) into Lake Tahoe is prohibited.

    a. Marina operators must promote the use of oil-absorbing materials in the bilge areas of boats with bilges. Boaters subject to control of the Marina

Discharger must be encouraged to inspect absorbent pads in bilge areas regularly and replace the pads as necessary.

b. Marina operators must clearly mark receptacles where patrons can properly dispose of soiled absorbent pads.

c. To encourage proper bilge wastewater disposal, marina operators must make bilge pump-out facilities available. Bilge pump-out facilities that use filters to treat bilge water must dispose of treated water off site at a facility permitted to receive oily wastewater, or onsite to land-based treatment facilities, in compliance with effluent limits for same.

17. **Sunken Vessels.** Direct discharges of gasoline and oil can impact surface waters when a boat sinks. If spills of gasoline, oil, or other waste occur at the marina, the marina operators and the individual boat owner are potentially liable. Accidental spills, including those associated with sunken vessels can be minimized with good housekeeping and preventative maintenance. To avoid and minimize the potential of boats sinking at marinas, Dischargers may develop guidelines for clientele that rent space at the marina. The following list provides suggestions that may be included in the guidelines.

    a. Boats left on moorings and slips should always be properly secured (e.g., tied and anchored) according to requirements specified by the marina.

    b. When boats are left in the water over the winter, snow loads on the boat should be minimized by frequent removal of snow or protective covering.

    c. If boats are left in the water over for long periods of inactivity, fuel volumes should be maintained at no more than ½ the total tank capacity and fuel fill caps should be in place.

    d. In the event that a boat sinks at the marina, staff should be trained on the proper response techniques including notifying first responders and deployment of absorbent pads and booms to contain fuel, oil, and/or other leaking fluids. In the event of a boat sinking or other significant release of petroleum product or hazardous materials, marina operators must contact the Local Emergency Response Agency (9-1-1 or the local fire department), the California Emergency Management Agency (Office of Emergency Services) at 1-800-852-7550, the National Response Center (800) 424-8802 and the Lahontan Water Board (530-542-5400). Contact information for first responders, salvage, towing, and vessel assist services should be readily available.

ATTACHMENT I – BEST MANAGEMENT PRACTICES FOR FUELING AND PUMP-OUT FACILITIES

Discharges from fueling and pump-out facilities are released into surface waters during the routine activities that occur at marinas. The following BMPs are the minimum required by the Dischargers.

I. Fueling Operations

Activities including fueling, motorized watercraft operation, and bilge pumping all contribute amounts of fuel into surface waters. To reduce the amount of fuel and oil released into surface waters, the Discharger should implement the following Best Management Practices (BMPs) at the marina where appropriate.

1. If the facility is storing petroleum in an aboveground storage tank, the Discharger must comply with the Aboveground Petroleum Storage Act, if applicable, which became effective January 1, 1990. The SWRCB's pamphlet titled "Information on the Aboveground Petroleum Storage Tank Program" specifies the requirements of the Act and defines who is subject to the Act.

2. Fuel tanks at the marina should be equipped with automatic shut-off nozzles. Marina staff and patrons who perform fueling should be educated so overfilling does not occur. To minimize the discharge of overflowing fuel, the Discharger may attach vents on fuel tanks that act as fuel/air separators.

3. Where appropriate, spills from the fuel nozzle can be minimized by wrapping the nozzle with fuel absorbent pads.

4. Fuel absorbent pads and booms shall be placed in a well-marked area near or on the fueling dock. The availability of pads and booms should be checked regularly to ensure that an adequate supply is on hand in case of an emergency fuel spill.

5. Soiled absorbent pads should be disposed of properly by placing the pads in receptacles properly labeled as hazardous waste. If receptacles are not available on-site, absorbent pads should be safely stored and immediately disposed of at the refuse company as household hazardous waste.

II. Motorized Watercraft Operation

Marina operators shall provide adequate signage, distribute pamphlets, include inserts in billings, and/or verbally educate patrons on the following TRPA ordinances:

1. After October 1, 2002, the following engine types are no longer allowed on all lakes in the Tahoe Region:

   - Any engine that does not meet the U.S. EPA 2006 or the California Air Resources Board 2001 emission standard, including:

- Electronically Fuel Injected (EFI) two-stroke engines,
- Rotax Fuel Injected (RFI) two-stroke engines,
- Two-stroke engines auxiliary sailboat engines, and
- Two-stroke engines-10 horsepower or less.

2. 600 foot no-wake zone from shoreline.

III. Bilge Pumping

Motorized watercraft contain low points in the hull called the bilge area. Bilge areas typically collect oil, grease, gasoline, and other wastes. Boat bilges have automatic and manual pumps that empty directly to the water. When a bilge pump is activated, the oil and grease from the operation and maintenance of the engine discharges into the water. Pumping the bilge and releasing wastes (oil, greases, and other materials) into Lake Tahoe is prohibited.

1. Marina operators shall promote the use of oil-absorbing materials in the bilge areas of all boats. Boaters shall inspect absorbent pads at least once during the boating season and replace the pads as necessary.

2. Marina operators shall clearly mark receptacles where patrons can properly dispose of soiled absorbent pads.

3. Aside from emergency situations, marina operators shall discourage the use of unnecessary bilge pumping.

4. Marina operators shall encourage boaters to perform routine maintenance checks on their boat engines. If oil is detected in the bilge during a routine check, boaters should use oil absorbent pads and pillows to soak up oil that has accumulated in the bilge.

5. To encourage proper bilge disposal, marina operators shall make bilge pump-out facilities available. Bilge pump-out facilities that use filters to treat bilge water may dispose of treated water off site at a proper disposal area or may in some cases dispose of filtered bilge water in infiltration areas for further treatment.

IV. Sunken Vessels

Direct discharges of gasoline and oil can impact surface waters when a boat sinking. If spills of gasoline, oil, or other waste occur at the marina, the marina operators and the individual boat owner are liable. Accidental spills, including those associated with sunken vessels can be minimized with good housekeeping and preventive maintenance.

To avoid and minimize the potential of boats sinking at your marina it may be useful to develop guidelines for clientele that rent space at the marina. The following list provides suggestions that may be included in the guidelines.

1. Boats left on moorings and slips should always be properly secured (e.g., tied and anchored) according to requirements specified by the marina.

2. When boats are left in the water over the winter, snow loads on the boat should be minimized by frequent removal of snow or protective covering.

3. If boats are left in the water over the winter for long periods of inactivity, fuel volumes should be maintained at no more than ½ the total tank capacity and fuel fill caps should be in place.

4. In the event that a boat sinks at the marina, staff should be trained on the proper response techniques including notifying first responders (e.g., local fire department) and deployment of absorbent pads and booms to contain the fuel, oil, and/or other leaking fluids. Contact information for first responders, salvage, towing, and vessel assist services should be readily available.

V. Sewage Pump-Out Facilities

To ensure that untreated sewage is not released into surface waters, marina operators must install, make available to the public, and maintain sewage pumpout facilities. Besides being prohibited in the Basin Plan, the discharge of sewage to surface water can have serious health and environmental impacts. Recreational swimmers and resident fish can be exposed to dangerous levels of pathogens and fecal bacteria. By providing full sewage pumpout services a marina operator can reduce environmental impacts and at the same improve their overall business image.

The following BMPs shall be implemented by the marina operator to prevent and reduce discharges of sewage to surface water:

1. Add language to slip leasing agreements mandating the use of pumpout facilities.

2. Signs must be posted or brochures made available to notify the public of the availability of the sewage pumpout facility.

3. Provide adequate restroom facilities to accommodate the public. Signage should be posted to ease the access of restroom facilities.

4. Promote and participate in boater education programs.

5. Post signs prohibiting the discharge of sanitary waste from boats into surface waters.

6. Test pump out units annually prior to the operating season.

7. Include inspection of pump out units in the facility's MPPP.

ATTACHMENT J

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD-LAHONTAN REGION

Reporting Year: ____
ANNUAL REPORT FORM

FOR

STORM WATER DISCHARGES WITH INDUSTRIAL ACTIVITY AND
AT MARINAS IN THE LAKE TAHOE BASIN

Reporting Period November 1, ____ through October 31, ____

All Dischargers must provide an Annual Report by **November 15, of each reporting year** to the California Regional Water Quality Control Board-Lahontan Region (Lahontan Water Board) at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150.

The Annual Report must include a summary of visual observations, a copy of all inspection reports, laboratory reports, the Annual Comprehensive Site Inspection Form Report, an explanation for instances of non-compliance (if any), and a proposal schedule/plan to achieve compliance for any violations or other compliance issues reported.

The marina operator must conduct an Annual Comprehensive Site Inspection Evaluation for each reporting period (Nov 1-Oct 31). The following items must be provided:

1. Records of visual observations, visual inspection reports and/or records required to be kept and submitted under the terms of this Order.
2. Results of storm water sampling and analysis (at sites given in the SWPPP – site name must match laboratory report and map description).
3. An evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are effective, properly installed, and properly maintained. This evaluation will determine if additional BMPs are needed.
4. Any incidents of non-compliance and the corrective action taken, or to be taken and a schedule for completion. Copies of any Corrective Action Forms completed.
5. A copy of any spill reports.
6. Training information, including at a minimum, date, agenda, and personnel trained, and the training subject matter covered.
7. A summary of marina activity level (See Section D of this Attachment J, questions 1 through 62).

CERTIFICATION Standard Industrial Classification (SIC) Code (s): *4493-Marina*

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted, is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: _____

Printed Name: _____ Date: _____

ADMINISTRATIVE INFORMATION

A. Facility WDID Number _____

B. Facility Operator _____

Name: _____

Contact Person: _____

Title: _____

Mailing Address: _____

City/State: _____ Zip: _____

Phone: _____ Fax: _____

E-mail: _____

Alternate Mailing Address: _____

City/State: _____ Zip: _____

Off-season Phone: _____

C. Marina Information

Marina Name: _____

Mailing Address: _____

City/State: _____ Zip: _____

Marina/Project Location (Street Address or Lat/Long if no street address):

_____

City/State: _____ Zip: _____

Phone: _____

E-mail / Web address: _____

D. Report for Marina Operations

1. Number of seasonal slips leased: _____
2. Number of seasonal moorings leased: _____
3. Average number of boats docked or moored during the active marina season:_____
4. Number of "live-aboard" vessels docked or moored: _____
5. Average number of transient or "guest" docks or moorings occupied: _____
6. Number of boats launched but not docked or moored: _____
7. Number of boats inspected for aquatic invasive species (AIS) at your marina: _____

	May	June	July	August	September	October
# of boats inspected per month						

8. Number of boats inspected for AIS off-site before being launched at your marina:_____

	May	June	July	August	September	October
# of boats inspected off-site but launched at your marina per month						

9. Number of boats washed with hot water to control AIS at your facility:_____

	May	June	July	August	September	October
# of boats washed per month						

10. Volume of wash water generated from AIS control activities: _____

	May	June	July	August	September	October
Volume of AIS boat wash water per month						

11. Does your marina operate a recycle system for AIS wash water? _____

12. Describe how wash water from AIS is contained and the location and facility name where it is disposed. _____

_____

13. Is pressure washing of boats conducted at your marina? __ Yes, __ No.

    a. If Yes, describe whether pressure washing is conducted by marina personnel, private boat owners or both. _____

    b. Describe methods of collection and disposal of pressure wash water. If disposed of off-site provide the name and location of the facility.

14. Are other boat washing activities performed at your site?

    a. If yes, provide the numbers of boats washed for purposes other than AIS control, and not employing pressure washing?

	May	June	July	August	September	October
# of boats washed for purposes other than AIS Control and not employing pressure wash						

    b. If yes, is boat washing performed by marina personnel, private boat owners or both.

15. In the space below or on a separate page attached to this Annual Report, please describe *(in detail)* boat washing activities as well as flow patterns of runoff, including the BMPs that are currently being used to prevent discharges from entering Lake Tahoe or co-mingling with storm water. If there are any changes in this action, please provide a map and label the area of boat washing as well as flow patterns, rinse water collection site, and location of discharge (e.g. sewer).

16. Number of boats stored on land prior to the active marina season: _____

17. Number of boats worked on in outside storage areas ("work" includes sanding, abrasive blasting, painting, varnishing, hull cleaning, engine or transmission repair, etc.): _____

18. If boats were worked on in outside storage areas, describe the BMPs used to contain and prevent pollutants from reaching storm water runoff.

19. Number of boats worked on inside storage buildings: _____

20. Number of boats stored outside during the active marina season: _____

21. Number of boats stored inside during the active marina season:_____

22. Do you ever have a mechanical sweeper clean the marina parking lot?

    Yes No

    If Yes, list the sweeping schedule.

23. Describe other BMPs to contain waste from boat maintenance and repair activities.

24. Provide maintenance records for all storm water BMPs, including, but not limited to, sweeping, vacuum-pumping, and/or shoveling out of all types of vaults (drain inserts, wet vaults, vortex separators), storm water basin maintenance, and any repairs to these BMPs.

Fueling Practices

25. Are portable gas tanks allowed at your marina? Yes No

    If you answered Yes, estimate the number of customers a day that fuel from a portable gas tank. _____

26. Do you provide absorbent pads to your clientele? Yes No

27. Are these products available free of charge? Yes No

28. Is your fuel dock equipped with spill containment products? Yes No

29. Do you operate a pump-out facility for oily bilge water? Yes No

30. Is the pump-out facility staffed full time by marina personnel? Yes No

31. What is the total volume of oily bilge water pumped out during the reporting year?

32. Identify the facility, name and address where oily bilge water is disposed.

33. Are there any additional methods used at your marina to minimize fuel entering the lake?

    Yes No

34. Was any fuel spilled at your marina this boating season? Yes No

    If yes, did you provide a copy of the spill report? Yes No

35. Did any vessels sink at your marina this season? Yes No

    If yes, did you provide a copy of the sunken vessel report? Yes No

36. Estimate the amount of fuel pumped from your fueling station per month

	May	June	July	August	September	October
Gallons of fuel						

Sewage Pumpout Facilities

State law authorizes the Water Board to require marinas to install vessel pumpout facilities. State law also requires that vessel pumpout facilities be operated and maintained to prevent sewage discharges to state waters. Sewage pump-outs, whether fixed or portable units, must be maintained in good working order and regularly cleaned.

37. How many fixed system sewage pumpout or a portable sewage pumpout units does your facility maintain? _____

38. Is the sewage pump-out facility staffed by marina personnel during operating hours?

    Yes No

39. Describe your maintenance, cleaning procedures, and schedules for your pumpout facilities.

40. Is the sewage pumpout facility at your marina clearly marked so patrons know that this service is available to them at your marina? Yes No

41. What is the total volume that the sewage pumpout facility can hold? _____

42. Provide monthly usage information for your sewage pumpout facility.

Estimated waste pumped by pumpout facility

	May	June	July	August	September	October
Gallons of waste pumped						
Or number of users if system is not metered						

43. Was any sewage spilled at your marina this boating season? Yes No

44. If yes, did you provide a copy of the spill report? Yes No

Restroom Facilities

45. How many public restroom toilets are located at your marina? _____

46. How many public shower stalls are located at your marina? _____

47. Are signs posted to direct boaters to restroom facilities? Yes No

Additional Information_

48. a. Is your marina certified as a Clean Marina? Yes No

If no, explain why:

b. Have you included the annual Aquatic Invasive Plant Species survey and map of survey area (Eyes on the Lake Survey Data Sheet and map)?

Yes No

If no, explain why:

c. Is marina personnel trained in the League to Save Lake Tahoe's "Eyes on the Lake" Program to identify aquatic invasive plant species, such as Eurasian watermilfoil and curly-leaf pondweed?

Yes No

If yes, provide a list of staff that were trained in the Eyes on the Lake Program.

d. For marinas that have had previous Eyes on the Lake training:

i. Have returning staff attended a refresher training? Yes No

ii. Have new staff been trained? Yes No

If yes, to either or both of above, provide list of staff trained in the League's Eyes on the Lake Program.

E. Marina Operations—Compliance with Monitoring and Effluent Limitations

49. Did your facility experience any exceedances of effluent limitations or other monitoring and compliance violations of the Marina General Permit during the reporting year?

(please circle): **Yes** **No**

If **YES**, complete a-g (Attach additional information as necessary)

a) Brief Description of Violation:

_____
_____
_____
_____

b) Section(s) of NPDES Permit violated:

_____
_____
_____
_____

c) Reported value(s) or volume:

_____
_____
_____

d) NPDES Limit/Condition:

_____
_____
_____

e) Date(s) and Duration of Violation(s):

_____
_____
_____

f) Explanation of Cause(s):

_____
_____
_____
_____

g) Corrective Action(s) taken: (specify actions taken and a schedule for actions to be taken)

_____
_____
_____
_____

Spill Log for Reporting Year: _____

The Marina General Permit requires reporting on all spills no matter how minor they are considered. [1]

List ALL spills at the marina between November 1, 20__ __ to October 31, 20__ __ below. Attach additional page if necessary to describe corrective actions.

Date	Substance spilled	Spill quantity	Reason for spill	Corrective Action(s)	Lahontan Water Board notified of spill?

Monthly Visual Facility Inspections

The Marina General Permit requires the Marina Operator to conduct a visual facility inspection at a minimum of once per month and within 24-48 hours of any anticipated rain event. An anticipated rain event is any time when the National Weather Service Forecast Office indicates a greater than 50% or greater probability of producing precipitation in the Project Area within 48 hours and that is separated by at least seven days from the previous weather pattern that produced rain (i.e., separate weather systems). You are required to consult the National Weather Service Forecast Office every morning of any day when the air temperature may exceed 32 degrees Fahrenheit at (http://www.srh.noaa.gov/forecast). You are required to print a copy of the daily forecast and include it in your facility inspection log. You are also required to complete an Annual Comprehensive Visual Inspection (not to be confused with this Annual Comprehensive Compliance Evaluation Report). The Annual Comprehensive Visual Inspection may serve as the September monthly visual inspection.

Complete the following summary table and attach copies of any inspection logs, where corrective actions were required.

	Date of Inspection(s)	Name/Title of the Person Inspection	Observations	Location of any non-storm water discharge, if observed	Type of Discharge (authorized or unauthorized)	Quality of Water (presence of any floating material, oil/grease, turbidity, odor, etc.)	Describe Corrective Action Taken
January							
February							
March							
April							
May							
June							

	Date of Inspection(s)	Name/Title of the Person Inspection	Observations	Location of any non-storm water discharge, if observed	Type of Discharge (authorized or unauthorized)	Quality of Water (presence of any floating material, oil/grease, turbidity, odor, etc.)	Describe Corrective Action Taken
July							
August							
September							
October							
November							
December							

Storm Water Visual Observations

The Marina General Permit requires at least four storm water visual observations to be taken during the reporting year. Refer to the Monitoring and Reporting Program.

	Date of Inspection	Name/Title of the person performing inspection	Visual observations prior to storm event	Visual observations during storm event	Location of storm water discharge observed	Quality of Water (presence of any floating material, oil/grease, turbidity, odor, etc.)	Corrective Actions that may help prevent or reduce pollutants in Storm water
1st Storm Event							
2nd Storm Event							
3rd Storm Event							
4th Storm Event							

STORM WATER SAMPLING AND ANALYSIS

Storm Water Sampling Locations

50. How many storm water discharge locations are at your facility? _____

51. Is the required map or sketch showing these sampling locations attached to the end of this report form (8½ x 11 paper). Yes No

Sampling and Analysis Results

52. How many storm events did you sample? _____

53. If less than the required two storm events, provide a detailed explanation.

54. Did you collect storm water samples from the first snow melt runoff, rain on snow, and other runoff-producing spring weather condition as required? Refer to 6.a. of the Monitoring and Reporting Program Yes No

    If you answered No, provide an explanation.

55. Name/title of the qualified personnel who performed storm water sampling this year? Provide qualifications.

Storm Water Benchmark Samples

You are required to take four “quarterly” storm water discharge samples distributed throughout the first year of the Marina General Permit and analyze them for Benchmark parameters. If the average sample result is less than the benchmark for all of the specified pollutants, you are not required to conduct any additional monitoring for Benchmark pollutants during the life of this Marina General Permit. However, once it becomes mathematically certain that the average of the quarterly samples will exceed the benchmark for one or more pollutants, you must take corrective actions and conduct a second round of quarterly samples for the pollutant(s) that exceeded the benchmark(s). This must be repeated until the average of four consecutive quarterly samples is less than the benchmark for all benchmark pollutants. (See Attachment E of the Marina General Permit).

56. Were you required to conduct monitoring for benchmark pollutants during the reporting year? ___Yes __ No

    If Yes, did your marina exceed benchmark levels for any specified pollutant?

    Yes No

    If Yes, describe the corrective actions that you took to improve the performance of BMPs for the pollutants that exceeded benchmarks.

You are required to conduct a Marina Surface Water Monitoring Plan (MSWMP) beginning the second year of the Marina General Permit. You may conduct the monitoring individually or join other marina facilities to conduct a group monitoring plan.

57. If this is the first year of the Marina General Permit, have you made plans to develop a MSWMP that will be ready to implement in the spring of next year?

    Yes No N/A

58. Unless this is the first year of coverage under the Marina General Permit, you are required to have implemented the MSWMP. If you are part of a group monitoring plan, list below the names of the other marinas in your group.

To ensure that all of the monitoring requirements have been completed, review Attachment E, Table E-2, for a summary of requirements. Attach the laboratory reports, including QA/QC procedures and copies of the chain of custody forms with the results of your storm water and MSWMP. When laboratory reports are submitted, analytical results must specify the correct method detection limit of each analytical parameter.

BMP Maintenance and Installation Plan

Describe the types of structural BMPs (infiltration trenches, drop inlets, infiltration basin, vegetated swale, erosion control, turbidity curtains etc.) that are currently installed at your facility/project site, the condition, and the maintenance schedule for each structure.

Description of BMP	
Condition prior to storm event	
Condition after storm event	
Describe Effectiveness	
Maintenance Schedule	
Additional Comments	

Description of BMP	
Condition prior to storm event	
Condition after storm event	
Describe Effectiveness	
Maintenance Schedule	
Additional Comments	

Description of BMP	
Condition prior to storm event	
Condition after storm event	
Describe Effectiveness	
Maintenance Schedule	
Additional Comments	

Description of BMP	
Condition prior to storm event	
Condition after storm event	
Describe Effectiveness	
Maintenance Schedule	
Additional Comments	

Use a copy of this page for any additional BMP descriptions.

BMP Maintenance and Installation Plan (cont.)

59. List the additional structural and non-structural BMPs that are needed at the marina to minimize or prevent industrial pollutants from entering storm water. Please include a schedule for construction/installation of the additional BMPs you have listed.

60. If additional BMPs are needed, provide a schedule for implementing the BMP revisions and provide an addendum or revision to your SWPPP.

Will these BMPs involve construction activities that will disturb less than one acre of land surface? Yes No

61. If yes, have you filed an NOA under this Marina General Permit for construction activity?

Yes No

62. If the BMP will require construction activity that will disturb one acre or more of land surface, you must file an Notice of Intent to obtain coverage under the Lahontan Water Board's General Construction Storm Water Permit (NPDES Permit No. CAG 616002, or its successor).

ATTACHMENT K

WATER QUALITY OBJECTIVES (WQOs) FOR CERTAIN WATER BODIES
LAKE TAHOE HYDROLOGIC UNIT

Table K-1. WQOs for Water Bodies in the Lake Tahoe Hydrologic Unit

	Surface Waters	Objective (mg/L except as noted) [1,2]						
		TDS	Cl	SO_4	B	N	P	Fe
1	Lake Tahoe	60/65	3.0/4.0	1.0/2.0	0.01/ -	0.15/ -	0.008/ -	--
2	Fallen Leaf Lake	50/ -	0.30/0.50	1.3/1.4	0.01/ 0.02	See Table L-2 for additional objectives		
3	Griff Creek	80/ -	0.40/ -	--	--	0.19/ -	0.010/ -	0.03/ -
4	Carnelian Bay Creek	80/ -	0.40/ -	--	--	0.19/ -	0.015/ -	0.03/ -
5	Watson Creek	80/ -	0.35/ -	--	--	0.22/ -	0.015/ -	0.04/ -
6	Dollar Creek	80/ -	0.30/ -	--	--	0.16/ -	0.030/ -	0.03/ -
7	Burton Creek	90/ -	0.30/ -	--	--	0.1/6 -	0.015/ -	0.03/ -
8	Ward Creek	70/ 85	0.30/ 0.50	1.4/ 2.8	--	0.15/ -	0.015/ -	0.03/ -
9	Blackwood Creek	70/ 90	0.30/ -	--	--	0.19/ -	0.015/ -	0.03/ -
10	Madden Creek	60/ -	0.10/ 0.20	--	--	0.18/ -	0.015/ -	0.015/ -
11	McKinney Creek	55/ -	0.40/ 0.50	--	--	0.19/ -	0.015/ -	0.03/ -
12	General Creek	50/ 90	1.0/ 1.5	0.4/ 0.5	--	0.15/ -	0.015/ -	0.03/ -
13	Meeks Creek	45/ -	0.40/ -	--	--	0.23/ -	0.010/ -	0.07/ -
14	Lonely Gulch Creek	45/ -	0.30/ -	--	--	0.19/ -	0.015/ -	0.03/ -
15	Eagle Creek	35/-	0.30/-	--	--	0.20/-	0.010/-	0.03/-
16	Cascade Creek	30/-	0.40/-	--	--	0.21/-	0.005/-	0.01/-
17	Tallac Creek	60/-	0.40/-	--	--	0.19/-	0.015/-	0.03/-
18	Taylor Creek	35/-	0.40/0.50	--	--	0.17/-	0.010/-	0.02/-
19	Upper Truckee River	55/75	4.0/5.5	1.0/2.0	--	0.19/-	0.015/-	0.03/-
20	Trout Creek	50/60	0.15/0.20	--	--	0.19/-	0.015/-	0.03/-

[1] Annual average value/90th percentile value.
[2] Objectives are as mg/L and are defined as follows:

B	Boron
Cl	Chloride
SO_4	Sulfate
Fe	Iron, Total
N	Nitrogen, Total
P	Phosphorus, Total
TDS	Total Dissolved Solids (Total Filterable Residues)

Table K-2. WQOs for Fallen Leaf Lake

Constituent	Objective (See Basin Plan Fig. 3-6, location 2)
pH[1]	6.5 - 7.9
Temperature[2]	Hypolimnion -15 °C Bottom (105m) - 7.5 °C at no time shall water be increased by more than 2.8 C (5 °F).
Dissolved oxygen[3]	% saturation above 80% and DO >7 mg/L except if saturation exceeds 80% DO at bottom (105m) > 6mg/L
Total nitrogen[4]	0.087[5]/0.114[6]/0.210[7]
Dissolved inorganic – N[8]	0.007 / 0.010 / 0.023
Total phosphorus	0.008 / 0.010 / 0.018
Soluble reactive -P	0.001 / 0.002 / 0.009
Soluble reactive iron	0.004 / 0.005 / 0.012
Total reactive iron	0.005 / 0.007 / 0.030
Chlorophyll-a[9,10]	0.6 / 0.9 / 1.5
Clarity - Secchi depth[11] - Vertical extinction coefficient	18.5 / 16.0[12] / 13.6[13] 0.146 / 0.154 / 0.177[14]
Phytoplankton cell counts[15]	219 / 280 / 450

1 0.5 units above and 0.5 units below 1991 maximum and minimum values. Also reflects stability of this constituent throughout the year.

2 Based on 1991 data. Indicates that if temperature in the hypolimnion during the summer exceeds 15 °C or if the water at 105m exceeds 7.5 °C this would constitute a significant change from existing conditions. Unless there is a anthropogenic source of thermal effluent, which does not currently exist, changes in water temperature in Fallen Leaf Lake are natural. Objectives apply at any time during the defining period.

3 Based on coldwater habitat protection and 1991 data base. The need for an objective for the bottom (105m) results from the desire to control primary productivity and deposition of organic matter on the bottom. A decline in bottom DO to below 6 mg/L would indicate a fundamental shift in the trophic state of Fallen Leaf Lake.

4 Because of the similarity between the mid-lake and nearshore sites, Fallen Leaf Lake objectives for N, P and Fe are based on the combined mid-lake 8 m and 45 m, and nearshore 8 m concentrations. Units are mg N/L, mg P/L and mg Fe/L.

5 Mean annual concentration (May - October) unless otherwise noted.

6 90th percentile value unless otherwise noted.

7 Maximum allowable value; 1.5 times the maximum 1991 value. No single measurement should exceed this value unless otherwise noted.

8 DIN = NO3+NO2+NH4

9 Corrected for phaeophytin degradation pigments.

10 Units are μg chl-a/L.

11 Units are meters.

12 10th percentile since clarity increases with increasing Secchi depth.

13 Represents 15% loss of clarity from 10th or 90th percentile value.

14 Calculated in the photic zone between 1 m below surface to 35 m. Units are per meter.

15 Units are cells per milliliter.