



California Regional Water Quality Control Board

Lahontan Region



Linda S. Adams
Acting Secretary for
Environmental Protection

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Edmund G. Brown Jr.
Governor

January 26, 2011

TO ALL MARINA OWNERS AND OPERATORS, INTERESTED PERSONS AND AGENCIES:

TENTATIVE UPDATED GENERAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH MARINA OPERATIONS AND DISCHARGES FROM MAINTENANCE DREDGING IN THE LAKE TAHOE HYDROLOGIC UNIT – EL DORADO AND PLACER COUNTIES

Staff of the California Regional Water Quality Control Board, Lahontan Region (Water Board) has prepared the enclosed Tentative Board Order in order to reissue an updated General Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Storm Water Discharges Associated with Marina Operations and Discharges from Maintenance Dredging Activities in the Lake Tahoe Hydrologic Unit. You are invited to review the Tentative Order and provide written comments to the Water Board no later than **February 25, 2011**. Comments will be considered in preparing the Proposed Order, which will be presented by staff to the Water Board for consideration at the public meeting to be held on April 13, and 14, 2011, in South Lake Tahoe. We request that you return the attached interest form to the Water Board if you would like to receive a hard copy of the Proposed Order. For interested persons other than those currently subject to the above-cited permit, if we do not receive the form or other comments from you or your agency, we will remove you from the mailing list for subsequent mailings.

Comments on the Tentative Order must be submitted in writing. Comments and the interest form (enclosed) may be mailed to the attention of Tobi Tyler at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150 or submitted by email to tyler@waterboards.ca.gov.

The Tentative Order and subsequent Proposed Order may also be accessed from the Water Board's website at <http://www.waterboards.ca.gov/lahontan/>, under links to the Water Board's April 2011 Agenda.

California Environmental Protection Agency

Planned Workshop

You are invited to attend an informational workshop that Water Board staff will be conducting to hear any concerns and answer questions about the permit:

Date/Time: Friday, March 4, 2011, from 10:00 AM to noon, and 1:00 PM to 3:00 PM.

Location: 2501 Lake Tahoe Boulevard, South Lake Tahoe 96150.

The workshop is open to the public and we encourage you to inform all interested parties of the available materials and workshop and let us know if you plan on attending.

If you need further information regarding this matter, please contact me at 530-542-5435 or ttyler@waterboards.ca.gov, or Alan Miller, Chief, North Basin Regulatory Unit, at 530-542-5430 or aemiller@waterboards.ca.gov.



Tobi L. Tyler
Water Resource Control Engineer

Enclosures: Tentative Board Order
Comments Form

TT/adw/T: Agenda Items April/ MPG Final Cover letter 1-25-11 AEM.doc
[File: Marina General Permit, R6T-2011-Tentative]



Complete Form and Return

TO: California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Blvd., South Lake Tahoe CA 96150

SUBJECT: Comments on the Tentative Order for updated General WDRs and NPDES Permit for Storm Water Discharges Associated with Marina Operations and Discharges from Maintenance Dredging Activities in the Lake Tahoe Hydrologic Unit are due by **February 26, 2011**.

- We concur with tentative requirements
- We concur; comments attached
- We do not concur; comments attached

_____ (Sign)
_____ (Type or print name)
_____ (Organization)
_____ (Address)
_____ (City and State)
_____ (Telephone)

I would like to receive a printed copy of the Proposed Board Order.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150
(530) 542-5400 • Fax (530) 544-2271
<http://www.waterboards.ca.gov/lahontan>

**ORDER NO. R6T-2011-Tentative
NPDES NO. CAG616003**

**WASTE DISCHARGE REQUIREMENTS
AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR STORM WATER RUNOFF ASSOCIATED WITH MARINA OPERATIONS AND
DISCHARGES FROM MAINTENANCE DREDGING 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 1 acre of total land area at marinas and private, public, or other legal entities conducting maintenance dredging in the Lake Tahoe Hydrologic Unit in the Lahontan Region of California.
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Table 2. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	April 13, 2011
This Order shall become effective on:	April 13, 2011
This NPDES Permit shall expire on:	April 12, 2016
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, Harold J. Singer, 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 April 13, 2011.

Harold J. Singer, 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 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: (1) the operation and maintenance of marinas, and (2) maintenance dredging. The owners and/or operators of the marinas covered by this Order are referred to as the "Marina Dischargers," and the parties responsible for maintenance dredging operations are referred to as "Dredging Dischargers." Collectively, the Marina Dischargers and the Dredging Dischargers are referred to as the "Dischargers" in the Marina General Permit. 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 discharges from maintenance dredging. The California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) previously issued a Marina General Permit for Marinas and Maintenance Dredging in 2005 (Order No. R6T-2005-0015, NPDES CAG616003) that was later amended on April 11, 2007 (Order No. R6T-2005-0015-A1). This Order, which is effective upon adoption (April 13, 2011), supersedes Order No. R6T-2005-0015-A1, which is revoked on July 13, 2011, except for enforcement purposes.

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) §§ 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). 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). USEPA issued a Multi-Sector General Permit (MSGP) in 2008. Marina operations (SIC Code 4493) are classified as Sector Q--Water Transportation in the MSGP. The MSGP provides coverage for industrial facilities that discharge storm water in areas not covered by an approved State NPDES program. On September 22, 1989, USEPA granted the State of California, through the State Water Resources Control Board (State Water Board) and the Regional Water Control Quality Control Boards (Regional Water Boards), authority to issue general permits pursuant to 40 CFR parts 122 and 123. Therefore, the Marina Discharges are not appropriate to be covered by the USEPA MSGP. However, this Marina General Permit contains many of the same provisions as those in the MSGP because they apply to marina operations.

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) 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 project site, such as supporting storage or parking areas, where each phase may disturb involve less than one acre of land.

Maintenance dredging activities pose the potential to re-suspend sediment and pollutants bound to sediment. Dredging activities also pose the potential for discharge during the storage, handling, and transport of dredging spoils, and from wastes and spills discharged from operation of dredging equipment and control measures such as turbidity containment curtains. This Order establishes measures to control discharge of pollutants during maintenance dredging activities.

To reduce or eliminate pollutants in storm water runoff, 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 USC § 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.

This Marina General Permit prohibits non-storm water discharges to surface waters unless an exemption to applicable waste discharge prohibitions is granted. Exemptions for discharges of waste earthen materials from maintenance dredging are granted by the Lahontan Water Board in this Order, with the concurrence of the Executive Officer. Limited exemptions may be available for waste discharges to surface waters from restoration projects or for certain projects necessary for public health or safety, as determined on a case-by-case basis by the Lahontan Water Board or the Executive Officer based on information from the discharger. Discharges are granted an exemption from an applicable prohibition on the condition, among other conditions, that the activities are appropriately regulated under waste discharge requirements; this Order serves as waste discharge requirements to regulate discharge activities conducted when a prohibition exemption is granted in writing. Non-storm water discharges, including from dredged spoil disposal and dewatering, that may be necessary for marina maintenance and operation may be discharged to lands or land based-treatment systems under the terms and applicable requirements of this Order, including effluent limitations, BMPs, and monitoring.

Certain non-storm water discharges to land are conditionally authorized: fire hydrant flushing potable water from fire fighting activities; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; oil-free atmospheric condensates including refrigeration, air conditioning, and compressor condensate; ground water; and foundation or footing drainage.

II. NOTIFICATION REQUIREMENTS

A. General Order Application

1. Operation and Maintenance of Marinas, including minor construction activity,

- a. To obtain new or renewed authorization for discharges from marina operations and maintenance, the Marina Discharger must meet the eligibility requirements specified in section II.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), (3) a Marina Pollution Prevention Plan (MPPP), and (4) a revised Discharger Monitoring Plan (DMP), and any additional information requested pursuant to section II.C.4.b of the Marina General Permit. The NOI, SWPPP, MPPP, and DMP requirements are attached to and part of the Marina General Permit and must be updated specifically for each marina seeking coverage under the Marina General Permit. The NOI, SWPPP, MPPP, and DMP must be submitted no later than **June 13, 2011**, except that the Marina Surface Water Monitoring Plan (MSWMP) need not be submitted until **April 13, 2012**. A Marina Discharger's Annual Fee, due on November 15th of each year, will serve as the filing fee.
- b. No later than **April 13, 2012**, the Marina Discharger must submit an MSWMP. Alternatively, the Marina Discharger may join with other marina owners/operators to conduct a regional plan designed to assess the water quality in surface waters potentially affected by discharges from the marinas in Lake Tahoe. (See Attachment E, section IV.B for requirements.)

2. Maintenance Dredging

- a. To receive coverage under the Marina General Permit for simple or complex maintenance dredging as defined in the Marina General Permit, the Dredging Discharger must meet the eligibility requirements specified in section II.C and submit an application consisting of a complete and accurate NOI, a project description, a DMP, a Best Management Practice (BMP) Project Plan, and the required filing fee. The application must be submitted to the Lahontan Water Board at least 60 days before the dredging activity is scheduled.
- b. The Project description must include: (1) a map that shows the boundaries and depths of the proposed dredging project; (2) a bathymetric survey of the project area conducted by a qualified surveyor; (3) the volume of material to be dredged; (4) a description of the dredging method to be employed; (5) location of dredge spoils disposal; (6) type and thickness of any turbidity barriers proposed for use, including a description of how the sides and bottoms will be anchored and the amount of freeboard; (7) a project schedule (dates, time, duration); (8) location of project access routes, haul routes, staging areas, and temporary storage areas; and (9) site survey for the presence of Tahoe Yellow Cress and aquatic invasive species (AIS).
- c. The Dredging Discharger's DMP must describe measures to fulfill the applicable monitoring requirements specified in Attachment E (i.e., a site survey, pre-dredging, dredging and post-dredging monitoring requirements). Attachment E is incorporated into this Marina General Permit.

- d. The BMP Project Plan must fulfill applicable requirements described in Attachment I. Attachment I is incorporated into this Order. These measures include methods to minimize re-suspension of sediment during dredging. The BMP Project Plan and the DMP must be designed to ensure that dredging activities do not cause or contribute to a violation of Receiving Water Limitations (section VI of the Marina General Permit) or contribute to water quality impairments in Lake Tahoe. The BMP Project Plan and DMP must be designed to identify and protect the Tahoe Yellow Cress and to identify and remove AIS. Dischargers are encouraged to partner with other organizations such as the Tahoe Regional Planning Agency (TRPA) to explore potential cost-sharing opportunities to optimize removal of AIS during dredging activities.
- e. If the dredging project involves the discharge of dredged or fill materials below the ordinary highwater rim or 100-year floodplain of surface waters, or for beach replenishment where such discharges are likely to enter waters of the United States, or if the U.S. Army Corps of Engineers requires the dredging project to comply with Section 404 of the CWA or section 10 of the federal Rivers and Harbors Act (33 USC § 403), the Discharger must also submit a complete application for Section 401 Water Quality Certification (WQC) in accordance with Title 23, Section 3856 of the California Code of Regulations (CCR). A copy of the Section 401 WQC must be submitted with the NOI.
- f. When dredging activities require a lake or streambed alteration agreement with the California Department of Fish and Game (CDFG), the Discharger must provide a copy of the written agreement with the NOI.
- g. The Executive Officer or his or her designee is authorized to issue a single Notice of Applicability (NOA) to a Discharger for ongoing simple maintenance dredging for a period of up to 5 years or the life of the Marina General Permit, whichever is less.

B. General Order Coverage

1. Marina Dischargers previously covered under a prior Marina General Permit (e.g., Order No. R6T-2005-0015-A1) must reapply to the Lahontan Water Board to be considered for general permit coverage for storm water discharges related to the operation and maintenance and discharges related to dredging activities under this Marina General Permit. Each Discharger must submit a complete NOI (Attachment B) and the required plans (SWPPP, MPPP, and DMP for discharges related to operation and maintenance of marinas; project description, DMP, and BMP Project Plans for discharges related to dredging activities) to the Lahontan Water Board on or before **June 13, 2011** and pay the Annual Fee (due November 15th of year). Coverage under this Marina General Permit will begin upon receipt of the NOA from the Lahontan Water Board, which will be no later than **July 13, 2011**.
2. The Marina Discharger shall be covered by the Marina General Permit for the discharge of storm water related to operation and maintenance activities only after a

NOA has been issued by the Executive Officer of the Lahontan Water Board. This Marina General Permit only covers discharges of industrial storm water associated with the operation and maintenance of the marina, and does not approve any particular project that may be involved in such operation or maintenance. Additional permits may be required to individual operation and maintenance projects (e.g. section 404 permit and section 401 certification).

3. The Dredging Discharger shall be covered by the Marina General Permit only after an NOA and a CWA Section 401 WQC (where a CWA Section 404 permit is required) has been issued by the Executive Officer of the Lahontan Water Board. The dredging fee, as set forth in section 2200 of Title 23 of the California Code of Regulations applies to any dredging not previously authorized and paid for and must be paid in full prior to receiving the NOA and CWA section 401 WQC.
4. All Dischargers must implement the applicable plans submitted with the NOI in accordance with the schedules and due dates specified in section II.A. and Attachments E, G, H, and I.
5. The 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.
6. The 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 the WQC under Section 401 of the CWA.
7. The Executive Officer or his or her designee is authorized to issue a single NOA to a Discharger proposing multiple discharges at multiple locations within the Lake Tahoe HU, provided that the nature of the discharges and the locations are reported and included in the application information provided with the NOI for this Order.
9. Supplemental information proposing new discharges or discharge locations similar to the discharges and locations authorized in the NOA must be supplied in writing to the Lahontan Water Board 60 days prior to the scheduled discharge. If the new discharges or locations are determined not to be a material change to the NOA, the Discharger will be notified to proceed. If the new proposed discharges or locations are determined to be a material change, or not within the original scope of the NOA, the Executive Officer may re-issue a modified NOA or the Discharger may be requested to submit a new NOI for this Order or an application for a different general or individual permit.

C. Eligibility Criteria

1. All discharges covered by the Marina General Permit are limited to: (1) industrial storm water or construction storm water from operation and maintenance of marina facilities, and/or (2) maintenance dredging activities in the Lake Tahoe Hydrologic

Unit (Department of Water Resources Hydrologic Unit No. 634.00) as described below:

- a. 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-2005-0015-A1) are eligible for coverage under this Marina General Permit. For purposes of this Marina General Permit, a Marina Discharger or Dredging Discharger is the legal owner of the marina (lands and/or facilities and infrastructure) or the legal owner's legally-designated operator or representative as described in section C.1.c, below. No other Dischargers will be covered under this Marina General Permit.
 - b. 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, and (2) disturbs less than one acre of land and (3) only occurs between October 15 of any year and May 1 of the following year if it involves the removal of vegetation or disturbance of ground surface, unless a variance is provided by the Executive Officer. Construction activity may include linear underground or overhead utility projects.
 - c. Private, public or other legal entities (e.g., marina associations, lakefront homeowner associations) conducting maintenance dredging with written permission of the owner(s) are eligible for coverage under this Marina Permit. Maintenance dredging must be limited to dredging above the legally established lake bottom elevations and within dimensions established by the U.S. Army Corps of Engineers, TRPA and/or the Lahontan Water Board (see Attachment J).
 - d. If the dredging projects includes fill below the ordinary high water rim or involves beach replenishment and requires a section 404 permit from the U.S. Army Corps of Engineers, the Discharger must also submit a complete application for CWA section 401 WQC in accordance with Title 23, section 3856 of the California Code of Regulations.
2. Discharges to surface waters are prohibited unless an exemption to waste discharge prohibitions is granted in writing. Activities and discharges specifically not 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 bilge or ballast water or cooling 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. Dredging that extends beyond the limits of the legally established lake bottom elevations and dimensions as defined in Attachment J.
 - f. Activity specifically covered by another individual or general NPDES permit for storm water discharges or process waste discharges.
3. Upon receipt of a NOI, the Executive Officer shall determine if such discharge satisfies the following conditions:
- a. The discharge is storm water associated with the operation and maintenance of the marina facility or discharges from maintenance dredging activity and does not include any other waste discharge activities.
 - b. The discharge does not include or originate from disturbance of lands classified as Stream Environment Zones, Bailey Land Capability Classification 1b as defined in the Basin Plan, unless the Lahontan Water Board grants an exemption.
 - c. The Discharger has submitted a revised SWPPP or a BMP Project Plan that describes BMPs capable of reliably meeting all prescribed effluent limitations, prohibitions, discharge specifications, or other requirements of this Order.
 - d. For storm water discharges associated with the operation and maintenance of the marina, the Marina Discharger has submitted an MPPP that describes BMPs capable of minimizing non-point discharges from vessels and marina operations to surface waters in the Lake Tahoe HU.
 - e. The Marina Discharger has provided a DMP which describes the methods and procedures by which the Marina Discharger will comply with the Monitoring and Reporting Program (MRP) as described in Attachment E of the Marina General Permit.

In addition, no later than **April 13, 2012**, the Marina Discharger must provide a MSWMP which describes the methods and procedures by which the Marina Discharger will assess water quality within the local marina waters (receiving waters). See Attachment E for detailed requirements.

4. Dischargers described in section II.C.1 are eligible for coverage under this Order provided that:
- a. The Discharger complies with the requirements to submit a complete and accurate NOI (Attachment B), application and/or annual fees, and applicable plans and documents for the operation and maintenance of a marina or for maintenance dredging as described in sections II.A.1 and II.A.2 of this Order. The NOI must be signed in accordance with the signatory requirements of the

Standard Provisions (Attachment D, section V. B). These documents must be filed the Lahontan Water Board at the following location:

California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Blvd.
South Lake Tahoe CA 96150

- b. The Discharger, upon written request, submits additional information necessary to ascertain whether the discharge meets the criteria for coverage under this Order.
- c. Dredging Dischargers are not authorized under this Order until a written NOA and CWA section 401 WQC (when a 404 permit is applicable) are received from the Lahontan Water Board Executive Officer or his or her designee.
- d. The Marina Dischargers that are owners of existing marina facilities on the California side of Lake Tahoe that generate industrial storm water discharges are eligible for coverage under this reissued Marina General Permit provided they submit the required NOI, plans, and fees, as specified in section II.A.1 and receive a written NOA for the discharge. Construction activities at marinas involving operation and maintenance and less than one acre of land disturbance are not authorized until a written NOA is received under the Marina General Permit or the Lahontan Water Board's General Construction Storm Water Permit (NPDES No. CAG616002, or its successor).
- e. Notwithstanding the provisions of this section, activities and/or projects may be brought to the Lahontan Water Board for consideration of adoption of an individual NPDES permit when the 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 Order, the applicability of this Marina General Permit to the Discharger is automatically terminated on the effective date of the individual WDRs.
2. The twelve Marina Dischargers covered under the previous Marina General Permit (Order No. R6T-2005-0015-A1), will continue to be covered under Order No. R6T-2005-0015-A1 until they receive a NOA for coverage under this revised Marina General Permit, or July 13, 2011, whichever comes first. The Marina Dischargers will receive a NOA after they have provided the Lahontan Water Board a complete and accurate NOI and plans as described in section II.A.1. Failure to submit the NOI and required plans by **June 13, 2011** or to pay the annual fee will result in lack of coverage under this Order or previous Order and could subject dischargers of storm water to enforcement actions, including civil liability for discharges without a NPDES permit.
3. Coverage under the 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 or completed dredging or construction activity. The Discharger must complete and submit the Request for Permit Revocation Form (Attachment C) and any reports required by this Order 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 Order for failure to comply with the terms of this Order.

4. Prior to the revocation of coverage under this Marina General Permit, the following conditions must be met:
 - a. Submit a complete Request for Permit Revocation Form (Attachment C).
 - b. The maintenance dredging or construction project is complete and there is no potential for dredging related or construction related storm water pollution.
 - c. Construction and waste materials, and dredging and/or other wastes, have been disposed of properly.
 - d. All elements of the SWPPP or Dredging BMP Project Plan have been completed.
 - e. Information required in the MRP has been submitted.
 - f. Lahontan Water Board staff has inspected the site, if necessary.
5. Coverage must continue until terminated in writing by the Executive Officer or his or her designee. If revocation of coverage under this Order is denied, the Executive Officer or his or her designee must return the Request for Permit Revocation with the reasons for denial provided in a written notification.

III. FINDINGS

The Lahontan Water Board finds:

A. Background. In 1972, the 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 an 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. On November 16, 1990, the USEPA published final regulations that established storm water permit application requirements for specified categories of industries. Federal regulations allow two permitting options for storm water discharges (Individual Permits and General Permits). The Lahontan Water Board has elected to adopt this General Marina General Permit at this time that will apply to most storm water discharges associated with the long-term operation and maintenance of marinas on the California side of Lake Tahoe, in the Lake Tahoe HU.

Before the Marina General Permit was adopted, several of the marinas in the Lake Tahoe Basin were regulated by both the State-wide NPDES General Industrial Activities Storm Water Permit and Individual WDRs adopted by the Lahontan Water Board. Complying with two separate but similar permits and their respective monitoring and reporting requirements was complicated and costly for most Dischargers. By adopting the Marina General Permit, the requirements and monitoring needs of each of the existing permits were combined into one permit that was more manageable for Lahontan Water Board staff and the regulated Dischargers. In addition, the Marina General Permit provides operators conducting maintenance dredging a more streamlined permitting process instead of obtaining individual WDRs.

A. Discharge Description. This Order authorizes specified discharges from: (1) the long-term operation and maintenance of the twelve California marinas in the Lake Tahoe HU and (2) maintenance dredging as defined in section II.C.1.c. of this Order.

1. Marina facilities typically include fueling operations, sewage and bilge pumpout facilities, and boat storage and maintenance areas. Other activities that typically occur at marinas include boat washing, sanding, abrasive blasting, painting, engine repairs and other mechanical repair. If these activities are performed in outside areas, allowing for the possibility of discharge of pollutants to storm water, BMPs must be implemented to minimize this possibility. Pollutants often associated with marina operations include: total petroleum hydrocarbons (TPH), bacteria, metals (e.g., aluminum, copper, iron, and zinc) and trash. 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 wash water. This wash water is currently being disposed of at upland, lined concrete evaporation basins and is prohibited from being discharged under this Marina General Permit.
2. Discharges may occur from storm water runoff from construction activities associated with the operation and maintenance of one or more of the twelve California Lake Tahoe marina properties. Pollutants often associated with construction activities associated with the operation and maintenance include: sediment and pollutants bound to sediment which may include metals or phosphorus, high pH from concrete mixing and wash water, and TPH from equipment leakage.
3. Discharges from maintenance dredging may result from the re-suspension of pollutants in dredged lake bottom sediments and discharge of liquids from dredging spoils during temporary storage, transport or final disposal. Pollutants may include: suspended sediment, nitrogen, phosphorus, and TPH.

C. Legal Authorities. This Order is issued pursuant to the CWA and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the Water Code (commencing with Section 13370). This Order shall serve as an NPDES permit for point source discharges of storm water from industrial and construction activities associated with marina operation and maintenance and discharges from maintenance dredging.

This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with Section 13260).

USEPA and approved states are authorized under 40 CFR section 122.28 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 Board and the Regional Water Boards, the authority to issue general NPDES permits pursuant to 40 CFR parts 122 and 123.

- D. Legal Authorities of Other Agencies.** This Order does not pre-empt or supersede the authority of other agencies to prohibit, restrict, or control the discharges from marina operations.
- E. Background and Rationale for Requirements.** The Lahontan Water Board developed the requirements in this Order based on: (1) the requirements of the existing Marina General Permit (Order No. R6T-2005-0015-A1); (2) readily available information for several similar discharges; (3) the requirements contained in the 2008 (as amended in 2009) USEPA NPDES MSGP; and (4) the State-wide General Permit for Storm water Discharges Associated with Construction Activities (Order No. 2009-0009-DWQ), referred to hereinafter as the "State-wide General Construction Permit." The Fact Sheet (Attachment F), which contains background information and rationale for the Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through L are also incorporated into this Order.
- F. California Environmental Quality Act (CEQA).** The action to adopt an NPDES permit is exempt from the provisions of CEQA (Public Resources Code section 21100 et seq.) in accordance with the Water Code Section 13389.

WDRs related to the operation and maintenance activities at the twelve existing 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 (CCR), 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.

Maintenance dredging is categorically exempt from the provisions of CEQA in accordance with Title 14, CCR, Chapter 3, Section 15304(g).

- G. Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations 40 CFR section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. A discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).
- H. Storm Water Effluent Limitations.** The *Water Quality Control Plan for the Lahontan Region* (hereinafter Basin Plan), Table 5.6-1, establishes effluent limitations for discharges of storm water to infiltration systems and to surface waters of the Lake Tahoe HU. Order No. R6T-2005-0015-A1 established effluent limitations, consistent with Table 5.6-1 of the Basin Plan, and also contained technology-based effluent limits for pH. These limits have been carried over into this Order from Order No. R6T-2005-0015-A1, and serve as both water quality-based effluent limitations as well as technology-based effluent limitations.
- I. Storm Water Benchmark Performance Levels.** Order No. R6T-2005-0015-A1 contained benchmarks for storm water effluent. This Marina General Permit also contains concentration-based, pollutant-specific benchmarks. The benchmarks and related monitoring and reporting requirements contained in this Marina General Permit are consistent with the benchmarks and monitoring and reporting requirements contained in the 2009 US EPA MSGP for marina facilities. The purpose of the benchmarks is to provide a measure of whether a facility's BMPs are meeting industry-based performance levels. The Marina General Permit requires Dischargers to take actions to improve BMP performance, when benchmarks are exceeded, and to conduct additional monitoring and documentation of such actions.
- J. Water Quality-Based Effluent Limitations (WQBELs).** 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, 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).
- K. Water Quality Control Plans.** The Lahontan Water Board adopted the Basin Plan, which became effective on March 31, 1995 and has been subsequently amended. The

Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Designated beneficial uses of the surface waters of the Lake Tahoe HU are: municipal and domestic supply (MUN); agricultural supply (AGR); navigation (NAV), water contact recreation (REC-1); non-contact water recreation, (REC-2); commercial and sport fishing (COMM), ground water recharge (GWR); cold freshwater habitat (COLD); wildlife habitat (WILD); preservation of biological habitats of special significance (BIOL); migration of aquatic organisms (MIGR); and spawning, reproduction, and development (SPWN). In addition, 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 ground water for Lake Tahoe HU, as set forth and defined in the Basin Plan, include: MUN, AGR and industrial service supply (IND).

Requirements of this Order implement the Basin Plan.

- L. Watershed Management Initiative.** The State Water Board has adopted the Watershed Management Initiative (WMI) that encourages watershed management throughout the State. The Marina General Permit recognizes the WMI by supporting the development of watershed monitoring programs authorized by the Lahontan Water Board.
- M. 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. About 40 criteria in the NTR applied in California. 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.
- N. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the State Implementation Policy (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. Requirements of this Order implement the applicable provisions of the SIP.
- O. 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.

P. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. Restrictions on these parameters are discussed in section V.C of the Fact Sheet (Attachment F). This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Q. Antidegradation Policy. 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 existing Marina Dischargers and maintenance dredging.

Code of Federal Regulations, title 40 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 quality of waters 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. As discussed in the Fact Sheet (Attachment F), the effluent limitations and permit conditions in this Order are as stringent or more stringent than those contained in the existing Order No. R6T-2005-0015-A1, and no new Marina Dischargers are eligible. Maintenance dredging is an ongoing activity and this Order is not expected to result in a significant increase in the volume of pollutants discharged. Further, the monitoring and reporting requirements for maintenance dredging in this Marina General Permit are more stringent than in the previous permit. Corrective actions are required if monitoring results show an exceedance of receiving water limitations or concentrations that are higher than the background surface water concentration for turbidity, total nitrogen or total phosphorus. These additional requirements will ensure that maintenance dredging discharges do not contribute to the water quality impairment in Lake Tahoe. Therefore, the permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16.

R. 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 effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R6T-2005-0015-A1. Therefore, this Order is in compliance with the anti-backsliding provisions of 40 CFR section 122.44.

- S. Discharges to Impaired Waters.** Lake Tahoe is listed on the CWA section 303(d) list as being water quality limited due to fine particulates, nitrogen and phosphorus. The Lahontan Water Board adopted a Total Maximum Daily Load (TMDL) for Lake Tahoe on November 16, 2010. The TMDL has linked the listed pollutants as causing a decline in deep water transparency in Lake Tahoe. The TMDL does not address impairments to near-shore waters in Lake Tahoe. The 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 TMDL must be approved by the State Water Board, the Office of Administrative Law and USEPA before it is effective. The Marina General Permit does not authorize new discharges to Lake Tahoe. The Dischargers eligible for coverage under the Marina General Permit are not identified as significant sources of the deep water impairment as described in the TMDL. However, the TMDL, if it becomes effective, may require an amendment to the Basin Plan to include additional requirements or language applicable to Dischargers covered under the Marina General Permit. As described in section VII.C.1.b. of this Order, the permit may be reopened in the future to incorporate waste load allocations (WLAs) or other applicable requirements as specified in the TMDL implementation plan.
- T. Endangered Species Act.** 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 sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- U. Requirement to Prepare and Implement a SWPPP.** This Marina General Permit requires the Marina Dischargers to implement a SWPPP that employs BMPs to reduce and eliminate to the maximum extent practical, the presence of industrial pollutants associated with marinas from entering storm water. BMPs must include: (1) Good Housekeeping, (2) Preventative 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) Periodic visual inspections of the facility. See Attachment G for detailed requirements.
- V. Requirement to Prepare and Implement an MPPP.** This Marina General Permit requires Marina Dischargers to prepare and implement an MPPP to minimize the potential for discharges from the operation and maintenance of the marina to surface water. The MPPP must identify and implement BMPs to prevent discharges associated with marina operations, including but not limited to: (1) fueling, (2) sewage and bilge pump-out activities, (3) maintenance and repair of vessels, and (4) and wash water from AIS inspections. The MPPP must include and Dischargers must implement facility-specific BMPs and the minimum BMPs outlined in Attachment H.

W. Requirement to Prepare and Implement a Marina Surface Water Monitoring Plan (MSWMP).

This Marina General Permit requires the Dischargers who own or operate a marina to prepare and implement a MSWMP to assess water quality within the local marina waters (receiving waters). See Attachment E for detailed requirements.

X. Requirement for Sewage-Pumpout Facilities. The Marina General Permit requires all marinas in the Lake Tahoe Basin to install, maintain, and make available to the public the use of a vessel waste pumpout facility. Under the Marina General Permit, the Lahontan Water Board will regulate potential pollutant discharges associated with the operation and maintenance of the marina which includes sewage from vessels. Pursuant to the Harbors and Navigation Code, the Marina General Permit requires Dischargers to install, make available to the public, and properly maintain sewage pumpout systems. Fixed-point sewage pumpout facilities must be required at marinas that: (1) lease 25 percent or more of their slips to cruisers, houseboats, and other watercraft equipped with portable heads, toilets, or holding tanks, and/or (2) accommodate over 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. (See Attachment H.)

Y. Maintenance Dredging. Maintenance dredging must be limited to legally established lake bottom elevations and dimensions established by the U.S. Army Corps of Engineers, the TRPA, and/or the Lahontan Water Board in permits and/or regulations. See Attachment J, for specifications for legally established lake bottom elevations and dimension.

If the dredging project includes fill below the ordinary high water rim or beach replenishment, the Discharger must also submit a complete application for CWA section 401 WQC in accordance with California Code of Regulations, title 23, section 3856.

Z. Discharge Prohibitions, Required Findings, and Exemption. The Basin Plan prohibits the discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand, and other organic or earthen materials, to surface waters of the Lake Tahoe Basin or lands below the highwater rim of Lake Tahoe. To allow for maintenance dredging under the Marina General Permit, the Lahontan Water Board is authorizing an exemption from the prohibition, as set forth in Chapter 5 of the Basin Plan. Maintenance dredging allowed under this Order meets the requirements of such as exemption, as set forth below.

1. The project is necessary "for health, safety, or public recreation."
2. The Lahontan Water Board has determined that maintenance dredging is required to make the boat ramp and harbor accessible for recreational boaters and safer for navigation. The project is necessary for public recreation.

3. The project "by its very nature" must be built where construction would otherwise be impossible without violation of a prohibition.
4. The Lahontan Water Board has determined that maintenance dredging within the marina channel, the inner harbor, or around the boat ramp by its very nature must be in the shorezone and below the highwater rim of Lake Tahoe. There is no reasonable alternative that would avoid the need for an exemption.
5. The impacts to Lake Tahoe are minimized.
6. The Discharger will utilize all appropriate BMPs as specified in Attachment I which is made part of the Marina General Permit, to ensure that any potential water quality impact will be minimized or avoided. Whenever feasible, suction dredging or cutterhead shall be required instead of clamshell dredging. When required, the Discharger will use a turbidity curtain to contain sediments disturbed during dredging.
7. Disposal and dewatering of dredged materials must: (1) follow BMPs to prevent sediments and other pollutants from being discharged into Lake Tahoe, and (2) comply with discharge prohibitions (see section IV) and effluent limitations for discharges to surface waters or land-based treatment systems (see section V) and (3) not cause or contribute to a violation of receiving water limitations (section VI) set forth in this Order. Dewatering and settling areas must be designed to accommodate the expected flow and to provide necessary removal of suspended and dissolved solids. Complex dredging which involves beach replenishment by deposition of dredged sediments may be allowed on a case-by-case basis only if the Discharger can show through pre-project substrate sampling that the dredged material is of better quality than the material that exists in the proposed replenishment area for measured constituents, including, but not limited to, N, P, fine particulate matter, and hydrocarbons. Additional permitting from the U.S. Army Corps of Engineers and the Lahontan Water Board may also be required for beach replenishment projects.

Because of the above, the Lahontan Water Board finds that maintenance dredging projects covered under the Marina General Permit meet provisions for exemption to the Basin Plan prohibitions and hereby grants an exemption for the project upon written concurrence of the Executive Officer.

- AA. Discharge Prohibitions and Storm water.** Section 5.2 of the Basin Plan states that waste discharge prohibitions 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.
- AB. Monitoring and Reporting.** Code of Federal Regulations, title 40 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 MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

- AC. Additional Monitoring Requirements.** The Marina General Permit requires rain verification procedures and a rain gauge to predict rain events to prepare for sampling and confirm when rain occurs at the marina. The Marina General Permit also requires a MSWMP to assess water quality near marina operations. (See Attachments E, sections III.A.2 and IV.B.)
- AD. Standard and Special 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. The Lahontan Water Board has also included in this Order special provisions applicable to authorized Dischargers. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.
- AE. 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.
- AF. CWA Section 401 Water Quality Certification.** If the U.S. Army Corps of Engineers requires the dredging project to comply with section 404 of the CWA, the Discharger must submit a complete application for 401 WQC to the Lahontan Water Board in accordance with California Code of Regulations title 23, section 3856.
- AG. Authority of Storm Water Management Agencies.** The Marina General Permit does not preempt or supersede the authority of local or regional storm water management agencies to regulate, prohibit, restrict, or control storm water discharges to separate storm sewer systems or other watercourses within their jurisdiction, as allowed by state and federal law.
- AH. 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 from maintenance dredging operations and has provided an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- AI. 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:

IV. DISCHARGE PROHIBITIONS

- A.** Unless specifically granted an exemption by the Lahontan Water Board, authorization pursuant to the Marina General Permit does not constitute an exemption to applicable discharge prohibitions prescribed in the Basin Plan. As described in Finding Z, the Lahontan Water Board has made findings to support the need for, and has granted an exemption to the prohibitions against threatened or actual discharges of solid or liquid waste materials, including soil, silt, clay, sand, and other organic or earthen materials, to surface waters of the Lake Tahoe Basin or lands below the highwater rim of Lake Tahoe in order to allow maintenance dredging operations. If an exemption is granted for a specific activity or discharge, the exemption will be explicit in the NOA.
- B.** Unless otherwise authorized by a separate NPDES permit, discharges of material other than storm water to a separate storm sewer system or waters of the United States are prohibited, except as described in Special Provisions; section VII.C.2 of this Order.
- C.** Unless otherwise authorized by a separate NPDES permit, discharges of waste or waste water from the following activities are prohibited: boat washing for control of AIS or other purposes; pressure washing; bilge or ballast water, or cooling water originating from vessels.
- D.** The discharge must not cause pollution as defined in Water Code section 13050 or threatened pollution.
- E.** 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.
- F.** 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.
- G.** 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.)
- H.** At no time must surplus or waste earthen materials 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 discharge of such materials to adjacent undisturbed land or to any surface water drainage course.

I. Section 4.1 of the Basin Plan contains region-wide prohibitions against the discharge of wastes to surface waters throughout the Lahontan Region. In addition, section 5.2 of the Basin Plan contains Lake Tahoe HU-specific discharge prohibitions. 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. Region-wide prohibitions that apply throughout the Lahontan Region are as follows:

1. The discharge of waste¹ that causes violation of any numeric water quality objective contained in the Basin Plan, including the Antidegradation Objective, is prohibited.
2. The discharge of waste that causes violation of any numeric water quality objective contained in the Basin Plan is prohibited.
3. 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 (as defined in CWC Section 13050) is prohibited.
4. The discharge of untreated sewage, garbage, or other solid wastes, or industrial wastes into surface waters of the Lahontan Region is prohibited.
5. For municipal² and industrial discharges³:
 - a. The discharge, bypass, or diversion of raw or partially treated sewage, sludge, grease, or oils to surface waters is prohibited.
 - b. The discharge of industrial process wastes⁴ to surface waters designated for the Municipal and Domestic Supply (MUN) beneficial use is prohibited. The discharge of industrial process wastes to surface waters not designated for the MUN use may be permitted if such discharges comply with the General Discharge Limitations in Section 4.7 of the Basin Plan and if appropriate findings under State and federal antidegradation regulations can be made.

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.

² "Municipal waste" is defined in Section 4.4 of the Basin Plan.

³ "Industry" is defined in Section 4.7 of the Basin Plan.

⁴ "Industrial process wastes" are wastes produced by industrial activities that result from one or more actions, operations, or treatments which modify raw material(s) and that may: (1) add to or create within the effluent, waste, or receiving water a constituent or constituents not present prior to processing, or (2) alter water temperature and/or the concentration(s) of one or more naturally occurring constituents within the effluent, waste or receiving water. Certain non-storm water discharges may occur at industrial facilities that are not considered to be industrial process wastes for the purposes of Prohibition IV.A.5.c. Examples include: fire hydrant flushing, atmospheric condensates from refrigeration and air conditioning systems, and landscape watering. The Regional Water Board may establish additional monitoring programs and reporting requirements for these and other non-storm water discharges at industrial facilities.

- J.** Waste discharge prohibitions 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. Section 5.2 of the Basin Plan contains prohibitions against the discharge of waste to surface waters in the Lake Tahoe HU that are otherwise applicable to discharges authorized under the Marina General Permit, unless the Lahontan Water Board has granted a specific exemption:
- 1.** The discharge of waste from boats, marinas, or other shoreline appurtenances to surface waters of the Lake Tahoe HU is prohibited.
 - 2.** The discharge of any deleterious materials to surface waters of the Lake Tahoe HU is prohibited.
 - 3.** The discharge of waste earthen material or of any waste as defined in section 13050, subdivision (d) of the Water Code that would violate the water quality objectives of this plan, or otherwise adversely affect the beneficial uses of the water designated by this plan, is prohibited.
 - 4.** The discharge of treated or untreated domestic sewage, industrial waste, garbage or other solid wastes, or other deleterious materials to the surface waters of the Lake Tahoe Basin.
 - 5.** The discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand, and other organic and earthen materials, to surface waters of the Lake Tahoe Basin, is prohibited.
 - 6.** The discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand, and other organic and earthen materials, to lands below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited.
 - 7.** The discharge or threatened discharge, attributable to new pier construction, of solid or liquid wastes, including soil, silt, sand, clay, rock, metal, plastic, or other organic, mineral, or earthen materials, to significant spawning habitats or to areas immediately offshore of important stream inlets in Lake Tahoe is prohibited.
 - 8.** The discharge or threatened discharge, attributable to new development in Stream Environment Zones, of solid or liquid waste, including soil, silt, clay, rock, metal, plastic or other organic, mineral or earthen materials to Stream Environment Zones in the Lake Tahoe Basin is prohibited.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

Final Effluent Limitations

1. Surface flows of storm water runoff or dredged-material dewatering wastes discharged to land treatment systems, surface waters or municipal storm water collection 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	Effluent Limitations		
		Reporting Level	Max. Concentration for Discharge to Land Treatment Systems	Max. Concentration for Discharge to Surface Waters
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	see footnote

¹ pH must be within the range of 6-9 standard pH units.

2. 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.
3. Surface flows of storm water or other effluents generated from or within the marina property and 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 attributed to anthropogenic sources, including human or animal sources, such as pets.

B. Interim Effluent Limitations – Not Applicable

C. Reclamation Specifications – Not Applicable

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

Surface flows generated from or within the marina and discharged to surface waters above applicable USEPA Benchmarks must comply with the following requirements. Applicable USEPA Benchmarks are summarized in Tables 4 and 5. Benchmarks are not effluent limits and an exceedance of a benchmark level does not constitute a violation of this Marina General Permit. However, once it is mathematically certain that the annual average concentration of storm water discharges to surface water will exceed a benchmark level (i.e., when the sum of the pollutant concentrations in four samples is greater than four times the benchmark), the Discharger must immediately initiate a review of the BMPs at the site, take corrective actions, and repeat the quarterly monitoring. These actions must be repeated until the average concentration from the quarterly sampling is less than the benchmark. Failure to implement corrective actions and monitoring requirements is a violation of this Marina General Permit.

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	0.006	Hardness Dependent

Table 5. Hardness Dependent Benchmarks Applicable To Marina Facilities¹

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.

VI. 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, or contribute to, 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 Federal Clean Water Act 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	<u>60</u>	<u>3.0</u>	<u>1.0</u>	<u>0.01</u>	<u>0.15</u>	<u>0.008</u>
	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

SO₄ = Sulfate

N = Nitrogen, Total

P = Phosphorus, Total

TDS = Total Dissolved Solids (Total Filterable Residues)

4. The Discharge of storm water or other effluents from the marina property or from within the marina to surface waters shall 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 (NH₃) is highly toxic to freshwater fish. The fraction of toxic NH₃ to total ammonia species (NH₄⁺ + NH₃) 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 extinction 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 μ mhos/cm at 50 °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. Pesticides.** For the purposes of this Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, pesticides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (California Agriculture Code 12753).

Pesticide concentrations, individually or collectively, must not exceed the lowest detectable levels, using the most recent detection procedures available. There must not be an increase in pesticide concentrations found in bottom sediments. There must be no detectable increase in bioaccumulation of pesticides in aquatic life.

Waters designated as MUN must not contain concentrations of pesticides or herbicides in excess of the limiting concentrations set forth in CCR, title 22, division 4, chapter 15.

- p. 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.
- q. 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.
- r. 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.

- s. 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 90th percentile value of 60 mg/L in tributaries to Lake Tahoe.

- t. **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.
- u. **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.
- v. **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.
- w. **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.

- x. **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).

- y. **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.
- z. **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 wastes from the operation and maintenance of marinas to ground water, including by way of land-based treatment systems, must not cause or contribute to 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.

VII. 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 L 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, must create 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 caused by human error or negligence;
 - c.** overflows from the system; or
 - d.** other causes 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 water 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.
- 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. The Discharger must forward a copy of such notice directly to the USEPA Regional Administrator.
- 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 examples) the Discharger must notify the Lahontan Water Board in writing and request that the permit coverage be terminated by using the NOT form in Attachment C.
19. The Discharger must fully comply with the documents and plans submitted pursuant to section II.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 II.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 must have a continuing responsibility for ensuring compliance with the Marina General Permit, including day-to-day operations 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 Notice of Termination (NOT) (Attachment C).
22. The Marina General Permit is effective on the date of adoption and will expire five years after the date of adoption.
23. Board Order No. R6T-2005-0015-A1 is revoked as of July 13, 2011, 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. If Total Maximum Daily Loads (TMDLs) are adopted by the Lahontan Water Board, and are approved by the State Water Board, the Office of Administrative Law, and USEPA, the Lahontan Water Board may reopen the Marina General Permit to establish new discharge requirements to interpret wasteload allocations into effluent limits and/or to assign load allocations and/or to implement prescribed measures or monitoring requirements as specified in the TMDL implementation plan.
- c. 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.
- d. 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. Special Provisions for Marina Operation and Maintenance Activities

- a. Non-storm water discharges to surface waters are prohibited except as authorized for maintenance dredging under the terms of this Order. Discharges to surface waters of materials other than dredging wastes and storm water are prohibited unless specifically authorized by the Water Board in writing under the Marina General Permit. Where not prohibited, discharges of non-storm water effluents to surface waters, lands, or land-based treatment systems, must be in compliance with effluent limitations for the discharge. Dischargers must control all non-storm water discharges through implementation of BMPs that effectively eliminate pollutants in the discharge. Non-storm water discharges and the BMPs appropriate for their control must be described in the SWPPP. Wherever feasible, alternatives such as land disposal that do not result in discharge of non-storm water to surface waters must be implemented. 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.

- b. The Discharger must immediately notify the Lahontan Water Board by telephone whenever an adverse condition occurs as a result of activities allowed pursuant to this Order. An adverse condition includes, but is not limited to, a violation or threatened violation of the conditions of this Marina General Permit, significant spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance. 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.

3. Best Management Practices and Pollution Prevention

Marina Dischargers must develop and implement a SWPPP and MPPP. The SWPPP must 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 in the Marina 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. Dredging Dischargers must develop and employ BMPs during dredging operations to minimize the re-suspension of sediment and pollutants during dredging and runoff from dredging spoils during temporary storage, transport and disposal. These BMPs must be described in the BMP Project Plan submitted with the NOI and include, at a minimum, the BMPs and control measures described in Attachment I of this Order that will be applied in specific locations.

a. Storm Water Pollution Prevent Plan (SWPPP)

- i. Specific requirements for the SWPPP are described in Attachment G. The Marina Dischargers must revise and update their SWPPP to meet the requirements specified in this section and Attachment G. The NOI and SWPPP must be submitted no later than **June 13, 2011**.
- ii. The SWPPP must identify and 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), Effluent Limitations and Discharge Specifications (section V), will not cause, or contribute to, a violation of the Receiving Water Limitations (section VI), and will meet the applicable BMP design specifications described in section VII.C.3.b. of this Order.
- iii. The SWPPP must be designed to address the following objectives:
 - 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), Effluent Limitations (section V) or cause or contribute to violations of Receiving Water Limitations (section VI) of this Order.
 - c) Identify, construct, implement and maintain BMPs or implement other measures to reduce or eliminate pollutants in storm water discharges and authorized 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.
- iv. To demonstrate compliance with the requirements of this Marina General Permit, the Marina 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 on 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 affidavit from trainers and trainees.
- v. The Marina Discharger must make the SWPPP, inspection 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 3, Title 23 of the California Code of Regulations.

- vii. Snow storage and disposal must be indirectly to, or separated from surface waters, and contained to minimize surface runoff. Storage of snow other than from direct snow fall must not occur in surface basins designed for storm water runoff retention; mechanized moving of accumulated snow to such areas is prohibited.

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. Marina Dischargers must maintain storm water BMPs to treat, contain and/or infiltrate runoff from impervious surfaces at the marina.
- ii. Marina Dischargers 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.

c. Storm Water BMPs for ground-disturbing activities associated with operation and maintenance of marinas are described in Appendix I to Attachment G—Storm Water Pollution Prevention Plan.

d. Marina Pollution Prevention Plan (MPPP). The Discharger must develop, provide to the Lahontan Water Board by June 13, 2011, and implement a MPPP as specified in Attachment H. 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.

e. Maintenance Dredging BMP Project Plan

- i. The Discharger must comply with specific BMP requirements for maintenance dredging projects that are described in Attachment I.
- ii. Maintenance Dredging BMP Project Plans must include methods to control turbidity. BMPs may include caissons or turbidity barriers. When turbidity barriers are proposed, the BMP Project Plan must include details on the type and thickness, a description of how the sides and bottoms will be anchored, and the amount of freeboard to be maintained.
- iii. Maintenance Dredging BMP Project Plans must include a survey for Tahoe Yellow Cress habitat, and where present, BMPs to prevent its disturbance.

- iv. Maintenance Dredging plans must include a survey for AIS (see Attachment A), indicating the qualifications of the surveyor, species surveyed and methods used. Where AIS are present the plan must describe methods for control and for the removal of AIS during dredging operations, and details on removal and disposal of AIS in dredged sediments.

VIII. 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 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 logs and training records. Compliance with the effluent limitations contained in section V of this Marina General Permit will be determined as specified in section VIII.B. below and section V.E. of Attachment E.

B. Compliance with Effluent Limitations

1. Multiple Sample Data

When determining compliance with the 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 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 Effluent Limitation

If the arithmetic mean of the sample data for a calendar day (or when applicable, the median determined by section VII.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.

TENTATIVE

ATTACHMENT A – 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).

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.

(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).

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

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-Storm Water

Any wastewater that is not composed entirely of storm water, as defined below..

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 section 13050, subdivision (I)).

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.

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

Discharges that originate offsite and flow onto the property of a separate project site.

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 Lahontan Water Board 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-2011-TENTATIVE
FOR WASTE DISCHARGE REQUIREMENTS
AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
FOR STORM WATER RUNOFF ASSOCIATED WITH MARINA OPERATIONS AND
DISCHARGES FROM MAINTENANCE DREDGING IN THE LAKE TAHOE HYDROLOGIC
UNIT**

I. NOI STATUS

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

<input type="checkbox"/>	Operation and Maintenance of the Marina Complete Sections: I – IV and XI – XVI
<input type="checkbox"/>	Complex Maintenance Dredging with Onsite Storage and Dewatering – Complete Sections: I – III, V – VII, and X – XVI
<input type="checkbox"/>	Simple Maintenance Dredging (Only Check if All Project Criteria Are Meet) – Complete Sections I – III, V – VIII, and X – XVI
<input type="checkbox"/>	Construction Project disturbing less than 1 acre of land. – Complete Sections: I – III and IX – XVI. [Note: Construction Projects disturbing 1 acre or more of land or are part of a larger common plan of development or sale are subject to NPDES Order No. CAG616002 or its successor.]
<input type="checkbox"/>	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) <input type="checkbox"/> 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 submit the revised Plan to the Lahontan Water Board prior to June 13, 2011. <input type="checkbox"/> 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. <input type="checkbox"/> 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 <input type="checkbox"/> 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. <input type="checkbox"/> 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. <input type="checkbox"/> A Maintenance Dredging Monitoring Plan	
Permit Compliance Responsibility <input type="checkbox"/> A qualified person has been assigned responsibility to ensure full compliance with this Order, and to implement all elements of the SWPPP. <input type="checkbox"/> 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. <input type="checkbox"/> A qualified person is responsible for eliminating all unauthorized discharges identified in the SWPPP.	

VI. MAINTENANCE DREDGING OPERATOR AND PROJECT LOCATION INFORMATION
 (only necessary for projects other than long-term operation and maintenance of marina)

Dredging Operator or Contractor		Contact Person	
Mailing Address:			
City:	State:	Zip:	Phone/Fax:
Dredging Project Location Name:		Dredging Project 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:		Latitude:	Longitude:
T _____, R _____, Section _____, MDB&M		_____ ° _____ ' _____ "	_____ ° _____ ' _____ "

VII. REGULATORY STATUS

For maintenance dredging projects you may need approvals from other agencies. Have you consulted with:	
California Dept. of Fish & Game	<input type="checkbox"/> Yes <input type="checkbox"/> No
California State Lands Commission	<input type="checkbox"/> Yes <input type="checkbox"/> No
U.S. Army Corps of Engineers	<input type="checkbox"/> Yes <input type="checkbox"/> No
If yes, attach a copy of your permit application or agreement.	
Does your project involve dredging or fill in waters of the United States, subject to U.S. Army Corps of Engineers permitting requirements under Clean Water Act Section 404?	
<input type="checkbox"/> Yes	
<input type="checkbox"/> No	
If yes, attach a copy of your Section 404 permit application and Section 401 Water Quality Certification application. (See website for application: http://www.waterboards.ca.gov/lahontan/water_issues/programs/clean_water_act_401/index.shtml).	

VIII. DREDGING PROJECT INFORMATION

For Maintenance Dredging Projects: Have you included a project description including a map showing the boundaries and depths of proposed dredging and a bathymetric survey of the existing lake bottom in the proposed project area? _____	For Maintenance Dredging Projects: Has a site survey been conducted to determine the presence of Tahoe Yellow Cress habitat and plants and Aquatic Invasive Species? _____
Volume (in cubic yards) of material to be dredged: _____ Dimensions (in feet) if dredging a channel: Width: _____, Length: _____	Have you conducted the required pre-project water and substrate sampling and submitted the results with this application? _____
Equipment used to dredge: _____	Have you included the required BMP Project Plan and Discharger Monitoring Plan (DMP)? _____
Final disposal site (include name of facility, address, and phone number): _____	(Refer to Attachment I of the Marina General Permit for details about preparing a BMP Plan and Attachment E for monitoring requirements.)
For Maintenance Dredging Projects: Will spoils be stored and dewatered onsite?	Project Schedule for All Projects: Project Start Date: _____
Will the dredged spoils be used for beach replenishment?	Projected Completion Date: _____
If yes, have you included the results of the sieve analysis required for beach replenishment projects? _____	Estimated time (in days) needed to complete the project: _____

IX. MULTI-YEAR MAINTENANCE DREDGING PROJECT (if you answer yes to all of the criteria below, you may apply for permit coverage that will allow ongoing maintenance dredging for a period up to the period of this NPDES Permit.)

YES

- A vector truck or suction dredge will be used to conduct dredging, or a cutterhead or clam shell dredge surrounded by a turbidity barrier will be used to conduct dredging.
- There will be no temporary storage or dewatering of dredged spoils onsite. Dredged material will be directly placed in haul trucks that will dispose of material offsite.
- The dredging project does not involve beach replenishment or fill below the highwater rim of Lake Tahoe.
- A site survey has been conducted by a qualified biologist to determine the presence of Tahoe Yellow Cress habitat and plants, and Aquatic Invasive Species (AIS).
- If Tahoe Yellow Cress is present at the site, implemented BMPs will protect the habitat and the plants, based on information included in the BMP Project Plan).
- The required BMP Plan and application fee for this project is included with this application.
- Required pre-project water sampling and results are submitted with this application. (Refer to the Monitoring and Reporting Program).

X. DISTURBANCE TO A STREAM ENVIRONMENT ZONE (SEZ)

A. Does the project involve a new disturbance to a stream environmental zone?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
<p>If yes, you are required to obtain an Exemption to a Basin Plan Prohibition that prohibits disturbances in SEZs. In order to qualify for an Exemption, you must present information with your application that allows the Lahontan Water Board or the Executive Officer to determine that the project meets the necessary findings required to grant an Exemption (refer to Basin Plan section 5.8 titled <i>Restrictions on Development and Disturbance in Stream Environment Zones</i> for a list of the exemption criteria).</p> <p>Exemption findings to allow new SEZ disturbance require that the project include restoration of SEZ lands in an amount 1.5 times the area of SEZ developed or disturbed by the project. The 1.5:1 restoration requirement does not apply to erosion control projects, habitat or SEZ restoration projects, or wetland rehabilitation. The project description and site map submitted with your application should clearly identify the location and amount of SEZ restoration.</p>	
B. If you answered yes to question X.A above:	
i. Provide the amount of new disturbance in an SEZ:	_____ square feet
ii. Provide the amount of fill in an SEZ:	_____ cubic yards

XI. RECEIVING WATER INFORMATION

The storm water runoff from the site discharges (Check all that apply)	
<input type="checkbox"/> Indirectly to Waters of the U.S.	
<input type="checkbox"/> To a storm drain system – enter owner’s name (e.g., Placer County, Caltrans)	
<input type="checkbox"/> Directly to Waters of the U.S. (e.g., river, lake, creek)	
Name of Receiving Water	

XII. 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, during maintenance dredging, or during construction.			
<input type="checkbox"/> Petroleum Products	<input type="checkbox"/> Metal	<input type="checkbox"/> Asphalt/Concrete	<input type="checkbox"/> Solvents
<input type="checkbox"/> Hazardous Substances	<input type="checkbox"/> Paint	<input type="checkbox"/> Treated Wood Products	<input type="checkbox"/> Plated Products
Are petroleum products (gasoline/diesel) being stored/distributed at your facility?		<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, number of storage tanks		If yes, volume of storage tanks	
Are the above ground tanks registered with the State Water Resources Control Board and has a Spill Prevention Contingency and Countermeasure Plan been prepared?		<input type="checkbox"/> Yes	<input type="checkbox"/> No

XIII. BILLING INFORMATION

Send Bill To: <input type="checkbox"/> Owner <input type="checkbox"/> Contractor <input type="checkbox"/> Other (describe)	Facility Name:	Contact Person:
	Mailing Address:	
	City, State, Zip:	
	Phone/Fax:	

XIV. VICINITY MAP

Have you included a vicinity map with this submittal?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Does your facility map clearly indicate sample locations?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

XV. FEES

A check payable to the State Water Resources Control Board in the amount of: \$ _____ (See website for current fee structure: [http://www.waterboards.ca.gov/resources/fees/index.shtml#storm water](http://www.waterboards.ca.gov/resources/fees/index.shtml#storm%20water))

XVI. 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:



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 AND
MAINTENANCE DREDGING 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. The maintenance dredging project has been completed and all of the following conditions have been met:

- a. The dredging project is complete and there is no potential for further discharge due to dredging activity or the storage or transportation of dredge spoils.
- b. The dredged spoils have been disposed of in conformance with information provided by the applicant in the NOI and the dredging project plan: ____ OR
- c. The Executive Officer of the Lahontan Water Board has been notified in writing of any changes in the location and/or manner of disposal of the dredge spoils: ____
- d. A composite sample of lake water taken from three locations within the containment area, including one sample taken from within 5 feet of the dredged bottom, has been analyzed for turbidity and any other analytes requested by the Lahontan Water Board Executive Officer AND the Executive Officer of the Lahontan Water Board or his or her designated staff have approved the removal of the containment structure, if any,
- e. A bathymetric survey of the lake bottom after the dredging project is complete has been submitted to the Executive Officer of the Lahontan Water Board.
- f. Information required by the Monitoring and Reporting Program has been submitted.

Enter date of project completion: ____ / ____ / ____ 3. 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 construction activity from the identified site that are authorized by NPDES Order No. CAG616002 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 construction activity under the Marina General Permit, and that discharging pollutants is storm water associated with construction 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 and maintenance dredging may submit 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 submit a Request for Permit Revocation and the new owner must submit 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. The dredging project has been completed and all of the following conditions have been met: (1) A post-dredging bathymetric survey has been submitted to the Lahontan Water Board Executive Officer, (2) a composite sample of lake water taken from three locations within the containment area, including one sample taken from within 5 feet of the dredged bottom, has been analyzed for turbidity and any other analytes requested by the Lahontan Water Board Executive Officer, and (3) the Executive Officer of the Lahontan Water Board or his or her designated staff have, after reviewing the analysis of the composite sample, approved the removal of the containment structure, if any.
3. Other basis for requesting permit revocation. Use this section to describe your basis if the basis is not included in 1 or 2, above.

Where to File

Submit the Request for Permit Revocation to the Executive Officer of the Lahontan Water Board located at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150. 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 his designated staff, agrees with the basis of revocation, your permit 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. Submit 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—CONSTRUCTION/DREDGING SITE INFORMATION

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

SECTION V—BASIS OF REVOCATION

Check the category which best defines 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. Use the space under Explanation of Basis of Revocation heading.

SECTION VI—EXPLANATION OF BASIS OF REVOCATION

Explain the basis or reasons why you believe you are no longer required to comply with the Marina General Permit.

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.

TENTATIVE

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

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

- 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 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.)

B. 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).)

C. 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).)

D. 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).)

E. 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).)

F. 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).)

G. 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).)

H. 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).)

I. 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 ($\mu\text{g/L}$) (40 CFR 122.42(a)(1)(i));
 - b. 200 $\mu\text{g/L}$ for acrolein and acrylonitrile; 500 $\mu\text{g/L}$ 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 ($\mu\text{g/L}$) (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 samples must be taken at the monitoring locations specified in the application for permit coverage and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. 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 outside of the hours of 10:00 p.m. to 7:00 a.m., but inspections and sampling may be conducted during this period to meet the requirements of this Order.

II. MARINA DISCHARGER AND MAINTENANCE DREDGING DISCHARGER MONITORING REQUIREMENTS

- A.** 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). The DMP, which must be submitted by June 13, 2011, must include

the applicable provisions for monitoring applicable storm water discharges and/or maintenance dredging. Marina Dischargers must also submit a Marina Surface Water Monitoring Plan (MSWMP), consistent with section IV.B of this MRP, by April 13, 2012.

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:

1. Determine whether the site is in compliance with the Discharge Prohibitions, effluent limitations, and USEPA benchmarks.
2. 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.
3. Determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in storm water discharges and authorized non-storm water discharges.
4. Assess the water quality in the marina surface waters.
5. Assess the impact of maintenance dredging on the surface water quality in Lake Tahoe.

III. VISUAL INSPECTIONS—APPLICABLE TO MARINA DISCHARGERS

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 print a copy to be included 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. Inspection findings and corrective actions must be documented in the 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 and a specified follow-up corrective actions, the inspector's name and signature, and the name and signature of the Storm Water Pollution Prevention Team (SWPPT) responsible person. A space must be provided to record the date of corrective action and a cross reference (Corrective Action Number) to the corresponding Corrective Action Form. At a minimum, the inspections must be conducted in a manner to identify and report on the following items:

- a. 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. Adequate reserve capacity of storm water containment devices to ensure additional inflow exists so as to meet the design storm water volume.
- c. Signs of oil or material spills and document measures to dispose of spilled material and clean impervious areas before a rain event.
- d. Spill response supplies to ensure adequate supply.
- e. Impervious surfaces and storm water conveyances have been swept or cleaned as needed.
- f. Boat wash areas have been inspected to ensure that wash water is contained and will not be released and co-mingled with storm water.
- g. Material storage piles or opened drums or other containers have been covered.
- h. Boat sanding, cleaning or painting activities conducted outside are stopped and residues are cleaned before the rain event.
- i. Pet exercise areas are cleaned 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.

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 life of the permit. The comprehensive annual site inspection may be used in place of the required September monthly 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 the 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, drums, or sediment where vehicles enter or exit the site.
- 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.

5. 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:

- a. Date and time of the inspection.
- b. The names and titles of personnel making the inspection.
- c. All observations relating to the implementation of control measures including:
 - i. Previously unidentified discharges from the site.
 - ii. Previously unidentified pollutants in existing discharges.
 - iii. Evidence of, or potential for, pollutants entering the drainage system.
 - iv. 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.
 - v. Additional control measures needed to address any conditions requiring corrective actions identified during the inspection.

- d. Any required revisions to the SWPPP resulting from the inspection.
- e. 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).
- f. A statement signed and certified in accordance with the Standard Provisions of the Marina General Permit (Attachment D, section V. B).
- g. 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.

C. Visual Inspections of Storm Water Discharge

A minimum of four visual inspections of storm water discharges must be performed during each year including discharges resulting from spring snow melt runoff. 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, SURFACE WATER AND DREDGING MONITORING

A. Storm Water Monitoring

1. Storm Water Discharge Sample Type and Frequency

- a. Storm water discharges must be sampled at least two times per year for determination of compliance with effluent limits. Grab samples must be taken at each of the storm water discharge points as indicated on the site map in the SWPPP. Monitoring for compliance with effluent limitations must be conducted on storm water discharge resulting from snow melt, rain on snow, and other runoff-producing weather conditions that results in storm water discharge from the associated marina facility to land-based treatment systems or to surface waters
- b. 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.
- c. Storm water discharges must be sampled four times per year (samples to be taken on a quarterly basis when possible, otherwise as distributed throughout the year as possible) 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. If the arithmetic mean or average of the concentrations of the four samples is less than the specified benchmark value, then no additional sampling is required for that parameter during the term of the Marina General Permit. If the sum of the sample results

exceeds four times the benchmark, the Discharger must review and upgrade the BMPs, and continue quarterly monitoring and annual analysis, as above, to determine whether the revised BMPs are effective in meeting the benchmarks. This procedure will continue until the average concentration of four consecutive samples is less than the benchmark. For the purposes of calculating the average concentration, 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, as specifically described in the application for coverage under this Marina General Permit and application support information.
- 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 distributed throughout the reporting year. Once it becomes mathematically certain that the average concentration will exceed the benchmark, take corrective actions, and conduct a second round of quarterly monitoring for that pollutant. Repeat until the average concentration from quarterly monitoring is less than the benchmark. Samples to be taken within the first 30 minutes of the discharge. Sampling may be discontinued once the average concentration from 4 quarterly samples is below the benchmark for all specified pollutants.
Storm Water Discharge Monitoring for Effluent Limited Pollutants	2 /Year if no exceedance; additional sampling required if case of exceedance	All storm water discharges to be monitored at least twice per year. The first sampling event must be conducted during the spring snow melt. The second event must be conducted during a discharge resulting from a rain event that has been preceded by at least 72 hours with no measurable rain. The second sample must be taken during the first 30 minutes of discharge. If effluent limits are exceeded, take corrective actions and re-sample within 30 days or next qualifying event. If second sample exceeds effluent limits, file an Exceedance Report with the Lahontan Water Board within 30 days after receipt of laboratory results.

B. Surface Water Monitoring

- 1.** Marina Dischargers must submit a Marina Surface Water Monitoring Plan (MSWMP) to the Executive Officer of the Lahontan Water Board of the Marina General Permit. 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).
- 2.** At a minimum, the MSWMP must include the following:
 - a.** Two sampling events must be conducted each year to include:
 - i.** One sample must be taken during the first 2 hours after the discharge of storm water runoff begins for the season or if the marina is unable to sample during the first discharge, then it must sample during a subsequent storm water discharge that has been preceded by a least 72 hours with no discharge. Samples must be taken from marina surface waters, down current from and within 250 feet of a storm water discharge.
 - 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), hardness and all other priority pollutants. After the first year, Dischargers will only be required to monitor for priority pollutants detected during the first year of monitoring.
 - b.** Four samples per year must be taken within five (5) feet of the fueling docks for total petroleum hydrocarbon (gasoline and diesel).
 - 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 (5) feet of sewage pumpout stations.
 - d.** Four events per year must document visual inspection of, and collection and characterization (volume and general composition), of trash in marina waters. Inspections must be conducted during spring, early summer, late summer, and fall or early winter. 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 assess the impact of the marina's on local near-shore water quality.

5. The Executive Officer may request additional information pursuant to the authorities granted by section 13267 and/or 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
Other Priority Pollutants	1,2	1	1,2	2/Year the first year, continue monitoring 2/Year only if detected during the first year.
TPH (Gasoline)	mg/L	EPA Method 8015/8021	1,2	4/Year
TPH (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 In accordance with 40 CFR part 136. For priority pollutants the methods must meet the lowest ML specified in Attachment 4 of the SIP. 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.")

C. Maintenance Dredging Monitoring

Monitoring requirements for maintenance dredging include requirements for pre-project dredging, during dredging, and in some cases, post dredging.

1. Pre-Project Dredging Monitoring Requirements

- a. **Site Survey.** A site survey must be conducted and submitted with the NOI. The survey must consist of: (1) a bathymetric survey of lake bottom elevations prior to dredging prepared by a qualified surveyor, and (2) a site survey completed by a qualified aquatic biologist for the presence of the Tahoe Yellow Cress habitat and plants, and for Aquatic Invasive Species (AIS).
- b. **Surface Water Monitoring.** To determine background water quality before dredging, three samples collected from the area to be dredged must be composited into one sample. The composite sample must be representative of the typical undisturbed conditions, and must not be taken within 72 hours of a rainfall event. These samples must be analyzed for the following constituents listed in Table E-4. The analytical results must be included with the NOI application.

Table E-4. Pre-Project Dredging Surface Water Monitoring

Parameter/Effluent	Unit	Test Method	Reporting Limit (PQL)
Total Nitrogen (as N)	mg/L	1	0.1
Total Phosphorus (as P)	mg/L	1	0.008
Turbidity	NTU	1	1 NTU

¹ In accordance with 40 CFR Part 136. 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.

- c. **Complex Dredging.** Complex dredging involves one or all of the following activities: (1) temporary onsite storage of dredged spoils; (2) dewatering of dredged spoils; (3) use of flocculant for settling solids; (4) beach replenishment; (5) fill below the highwater rim of Lake Tahoe; and/or (6) discharge of decant water to a surface water. The following monitoring must be conducted and the analyses included with the NOI application for complex dredging projects. For complex dredging a substrate sample must be collected from the same bottom elevation that will be achieved during the dredging project. The sample must be analyzed for the constituents listed in Table E-5.

Table E-5. Pre-Dredging Substrate Monitoring Required for Complex Dredging Projects

Parameter/Effluent	Unit	Reporting Limit (PQL)
Total Petroleum Hydrocarbon (Gasoline)	mg/kg	0.5
Total Petroleum Hydrocarbon (Diesel)	mg/kg	1

- d. Beach Replenishment.** Complex dredging projects intending to use dredge spoils for beach replenishment must provide the following analysis with the NOI application. The required sampling is intended to compare the quality of the dredged material with the existing beach sand.

To characterize the material to be dredged, a minimum of three samples must be collected from the area to be dredged and composited into one sample. To characterize the beach sand, a minimum of three samples must be collected from the proposed replenishment beach area and composited into one sample. A grain size analysis must be conducted on each composite sample and the results must indicate the percent of fine material (sediment passing a no. 200 sieve size).

2. Monitoring Requirements During Dredging

The following monitoring must be performed during dredging activity:

- a. Continuous visual inspection must be made of the containment structure, spoils storage area, and the dredging equipment to ensure total containment of disturbed sediments and the absence of illegal discharges. If turbidity plumes are detected outside of the containment structures, and/or if petroleum product sheens are detected outside of the protective oil barriers, dredging must cease immediately and action must be taken to correct the problem.
- b. Turbidity must be measured at a minimum frequency of once every 2 hours. If a containment structure is used, turbidity must be monitored at a location of no more than 5 feet from the containment structure. If no containment structure is used because of low-impact dredging techniques, turbidity must be monitored at a location of no more than a 20-foot radius from the dredging equipment. If turbidity levels exceed 3 NTU, the applicable Receiving Water Limitation for clarity, or the background concentration, whichever is greater, corrective actions must be taken to reduce turbidity from the dredging activity.
- c. Samples must be analyzed for total nitrogen and total phosphorus. At a minimum, samples will be taken at least once per day during the dredging activity at the same location as the turbidity measurement and analyzed for total nitrogen and total phosphorus. If levels exceed the Receiving Water Limitation (e.g., 0.15 mg/L for total nitrogen and/or 0.008 mg/L for total phosphorus) or the background concentrations, whichever are higher, corrective measures must be taken in an

attempt to reduce levels to below Receiving Water Limitations or background concentrations.

- d. Daily written records must be kept of the inspections noting any problems, a summary of sample results that exceeded Receiving Water Limitations and a description of corrective actions, if any. All monitoring results and laboratory analytical and quality assurance reports must be made available on site during the dredging activity and included in the final project report in compliance with the reporting requirements specified in Attachment E, section V.C.

3. Post-Dredging Monitoring Requirements

- a. **Composite Water Sample.** A composite sample must consist of lake water taken from three locations within the containment area or if no containment is employed, the samples must be taken above the actively dredged area. The samples must include at least one sample taken from within 5 feet of the dredged bottom. This sample must be analyzed for turbidity, and other analytes as requested by the Lahontan Water Board. Approval from the Lahontan Water Board Executive Officer must be obtained prior to removing any containment structure.
- b. **Bathymetric Survey.** A bathymetric survey of the post-dredging lake bottom must be prepared by a qualified surveyor and submitted with the Request for Permit Revocation.

V. REPORTING REQUIREMENTS

A. Storm Water and Surface Water Monitoring Reports

1. **Storm Water and MSWMP Reports.** The Discharger must submit monitoring results from storm water effluent monitoring and the MSWMP in the Annual Report unless there is an exceedance of storm water effluent limitations, (see V.A.2 below). The results must be submitted to the Lahontan Water Board, with the following information:
 - a. WDID Number.
 - b. Facility name, physical address, and location.
 - c. Name of receiving water.
 - d. Monitoring data from this monitoring event.
 - e. An appropriate contact name and phone number.
2. **Exceedance Report.** Within 30 days of the receipt of the laboratory results from a follow-up sample that confirms an exceedance of storm water effluent limitations, the Discharger must file an Exceedance Report with the Lahontan Water Board. The Exceedance Report must contain the following information.

- a. WDID Number.
 - b. Facility name, physical address, and location.
 - c. Name of receiving water.
 - d. Monitoring data from this and preceding monitoring events.
 - e. An explanation of the situation; what the Discharger has done and intend to do (should your corrective actions not be complete) to correct the violation.
 - f. An appropriate contact name and phone number.
- 3. Benchmark Report.** The Discharger must submit sampling results to the Lahontan Water Board no later than 30 days after receiving the laboratory results for each benchmark sample that the Discharger is required to collect. 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 and preceding monitoring events.
 - e. An explanation of the situation; what the Discharger has done and intends to do (should corrective actions not be complete) to correct an exceedance of a benchmark.
 - f. An appropriate contact name and phone number.

B. Annual Report

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

1. The facility or project name and location.
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.
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 benchmarks, an inspection by a regulatory agency has indicated need for corrective action, etc.
6. A copy of the Annual Comprehensive Site Inspection Report for the reporting year.
7. Marina Dischargers must answer questions regarding marina activity levels during the reporting year (Questions 1 through 68 on the Annual Report Form provided in Attachment K).
8. 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.
9. Annual Reports must be submitted to the Lahontan Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address below:

California Regional Water Quality Control Board, Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150

C. Final Dredging or Construction Project Monitoring Report

1. Following the completion of the dredging project, the Discharger must submit the following information to the Executive Officer of the Lahontan Water Board:
 - a. A statement that the dredging project has been completed and all of the following conditions have been met:
 - i. There is no potential for further discharge due to dredging activity or the storage or transportation of dredged spoils.
 - ii. The dredged spoils have been disposed of in conformance with information provided in the NOI and the dredging project plan OR describe any deviations from the NOI and BMP Project Plan.
 - b. A summary of the monitoring data and corrective actions taken during the dredging project as required by this MRP. Include all required laboratory reports in accordance with the Standard Provisions for Monitoring and Reporting, as described in Attachment D of the Marina General Permit.
 - c. A summary of the post-dredging monitoring data.
 - d. A bathymetric survey prepared by a qualified surveyor, delineating the lake bottom elevations after the completion of the dredging project.

- e. A description of measures taken, if any, to avoid impacts to Tahoe Yellow Cress habitat and plants.
- f. A description of measures taken, if any, to remove AIS during dredging operations and an assessment of the type and population of AIS present before and after the dredging activity.
- g. The final report must be signed and dated by the project Discharger, , and submitted to the Lahontan Water Board within 30 days of project completion. The report must be submitted to the Lahontan Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address below:

California Regional Water Quality Control Board, Lahontan Region
 2501 Lake Tahoe Boulevard
 South Lake Tahoe, CA 96150.

- h. 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.
2. For minor construction activities that occur during the monitoring period, , the Discharger must submit, the following information, at a minimum:
- a. Details of any modification of the construction or project plans for the proposed storm water collection treatment, or disposal facilities or restoration work.
 - b. Details on any change in the amount of impervious coverage for the project site.
 - c. Any significant problem(s) that occurred during project construction and remedial measures planned or implemented.
 - d. A report on the status of onsite soil stabilization and re-vegetation measures that have been completed or that are incomplete.
 - e. Records of all inspections (including the inspection log book), compliance certificates, monitoring reports, and noncompliance reporting must be maintained by the Discharger for a period of at 5 years.

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 submit reports using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such

notification is given, the Discharger must submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

- 2. 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 comply 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.

PERMITTED

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 submit 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 from a 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 every 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 reserve 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			
Identify and cover material storage piles, open drums, or other containers			
Boat sanding, cleaning, or painting activities conducted outside stopped and residues cleaned			
Clean pet 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	
<input type="checkbox"/> Update on a corrective action from a previous annual report <input type="checkbox"/> New corrective action	
How was the problem identified? <input type="checkbox"/> Employee observation <input type="checkbox"/> Facility inspection <input type="checkbox"/> Storm water discharge monitoring <input type="checkbox"/> Benchmark monitoring <input type="checkbox"/> Notification by EPA or State or local authorities <input type="checkbox"/> Other (describe): _____	
Identify the condition(s) triggering the need for this review: <input type="checkbox"/> Unauthorized release or discharge <input type="checkbox"/> Numeric effluent limitation exceedance <input type="checkbox"/> Control measure inadequate to meet applicable water quality standards <input type="checkbox"/> Control measures inadequate to meet non-numeric effluent limitations <input type="checkbox"/> Control measures not properly operated or maintained <input type="checkbox"/> Change in facility operations necessitated change in control measures <input type="checkbox"/> Average benchmark value exceedance <input type="checkbox"/> 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
	<input type="checkbox"/>	<input type="checkbox"/>
Date corrective action initiated: _____		
Date corrective action completed: _____	Or date expected to be completed: _____	
<p>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:</p> 		
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

Facility Name: _____ Date/Time: _____

Inspector: _____ Title: _____

Additional Inspector: _____ Title: _____

Contact Person: _____ Title: _____

Phone: _____ Ext. _____ E-mail: _____

Yes	No	Inspection Items	Description
<input type="checkbox"/>	<input type="checkbox"/>	Did you inspect all potential pollutant sources, including areas where industrial activity may be exposed to storm water?	
<input type="checkbox"/>	<input type="checkbox"/>	Did this inspection identify any storm water or non-storm water outfalls not previously identified in your SWPPP?	
<input type="checkbox"/>	<input type="checkbox"/>	Did this inspection identify any sources of storm water or non-storm water discharges not previously identified in your SWPPP?	
<input type="checkbox"/>	<input type="checkbox"/>	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?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		

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?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		
Locations where fuel and chemical products or waste are stored	Any control measures in need of maintenance or repair?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		
Fueling areas	Any control measures in need of maintenance or repair?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		
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?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		
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?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		

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?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		
Other Industrial Activity Area: _____	Any control measures in need of maintenance or repair?	<input type="checkbox"/>	<input type="checkbox"/>		
	Have any control measures failed and required replacement?	<input type="checkbox"/>	<input type="checkbox"/>		
	Are any additional control measures necessary in this area?	<input type="checkbox"/>	<input type="checkbox"/>		

Yes	No	Inspection Item	Description and Observations
<input type="checkbox"/>	<input type="checkbox"/>	Are there any unidentified pollutants in existing discharges?	
<input type="checkbox"/>	<input type="checkbox"/>	Is there any evidence of, or the potential for, pollutants entering the drainage system?	
<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input type="checkbox"/>	

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.

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
<input type="checkbox"/>	<input type="checkbox"/>	Any visible pollutants in the discharge (turbidity, trash, oil sheen, foam, or odors)?

Description of discharge: _____

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

Description of BMPs evaluated and any deficiencies: _____

Yes	No	Inspection Item	Additional Information
<input type="checkbox"/>	<input type="checkbox"/>	Observation of storm water containment areas for leaks	
<input type="checkbox"/>	<input type="checkbox"/>	Any non-storm water discharges observed?	
<input type="checkbox"/>	<input type="checkbox"/>	Any corrective actions required including necessary changes to the SWPPP?	Implementation date(s): _____
<input type="checkbox"/>	<input type="checkbox"/>	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.

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. USEPA issued a Multi-Sector General Permit (MSGP) in 2008. Marina operations (SIC Code 4493) are classified as Sector Q--Water Transportation in the MSGP. Although marinas in California are not subject to the MSGP, it serves as the basis for several requirements in this Marina General Permit.

USEPA adopted a MSGP permit in 2000. This permit was superseded by the MSGP which became effective on September 28, 2008, and was modified, effective May 27, 2009. The requirements in this Marina General Permit for industrial storm water are consistent with the USEPA 2009 MSGP provisions for marina operations (SIC Code 4493). However, unlike the MSGP, this Marina General Permit also contains numeric effluent limitations as required by the Water Quality Control Plan for the Lahontan

Region (Basin Plan), Table 5.6-1, and carried over from the previous Marina General Permit.

The federal regulations provide that discharges of storm water to waters of the United States from construction projects that encompass 5 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 5 acres to 1 acre.

The federal regulations do not apply to construction activities that disturb less than 1 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. A Memorandum of Understanding between the Lahontan Water Board and the Tahoe Regional Planning Agency (TRPA), effective August 5, 2003, gives primary responsibility to the Lahontan Water Board for regulating storm water discharges from marina facilities. Larger-scale construction projects at the marinas that disturb 1 acre or more of land are subject to the Lahontan Water Board's General Construction Storm Water Permit (NPDES No. CAG616002).

In 2005, the Lahontan Water Board adopted Order No. R6T-2005-0015a general NPDES permit for industrial storm water discharges at the 12 existing marinas on the California side of Lake Tahoe including minor construction activity conducted at the marina facilities, and maintenance dredging operations. Prior to the issuance of R6T-2005-0015, several of the marina facilities were subject to both the Statewide NPDES General Industrial Activities Permit and individual WDRs adopted by the Lahontan Water Board, in addition to certifications required pursuant to CWA section 404 for dredging under CWA section 404 permits. By establishing a Marina General Permit, the requirements and monitoring needs of the two permits were combined. In addition operators conducting maintenance dredging were provided a more streamlined permitting process than obtaining individual WDRs. On April 11, 2007, that order was amended (R6T-2005-0015-A1) to require amended SWPPPs for the marinas.

This reissued Marina General Permit authorizes discharges to surface waters of the United States from: (1) storm water from the operation and maintenance of marinas, and (2) maintenance dredging in the Lake Tahoe Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 634.00) so long as the dischargers comply with all requirements, provisions, limitations and prohibitions in this Order. Storm water discharges from industrial activities and construction activity disturbing less than 1 acre of land at marina facilities are covered.

Non-storm water discharges to surface waters are generally prohibited in accordance with the Basin Plan. However, some non-storm water discharges may be authorized under applicable exemptions, generally limited to restoration projects and projects necessary for health and safety or public recreation, and meeting requirements specified in the Basin Plan. In addition to non-storm water discharges from

maintenance dredging, the former Marina General Permit (Order No. R6T-2005-0015-A1) authorized certain non-storm water discharges to surface waters as long as they: (1) were in compliance with Lahontan Water Board requirements; (2) the non-storm water was discharged to a land treatment system before it was discharged to the lake; (3) the monitoring program included quarterly visual observations of each non-storm water discharge and its sources to ensure effective BMPs were being implemented and were effective; and (4) the non-storm water discharges were reported and described annually as part of the annual report. The discharge of potable water used in fire fighting was unconditionally authorized by the Marina General Permit.

This Marina General Permit does not authorize the above-cited previously-authorized non-storm water discharges to surface waters. In accordance with the Basin Plan, "discharge of wastes from boats, marinas, or other shoreline appurtenances to surface waters of the Lake Tahoe HU is prohibited." Therefore, the previous authorization is withdrawn as improper. Discharges associated with marina operations and maintenance to lands and land-based treatment systems is conditionally authorized for the following: fire hydrant flushing, potable water from fire fighting activities, potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; oil-free atmospheric condensates including refrigeration, air conditioning, and compressor condensate; ground water; and foundation or footing drainage. Such discharges to land are authorized by the Marina General Permit provided they do not cause or contribute to a violation of any water quality standard and are controlled through implementation of BMPs which effectively eliminate or reduce pollutants in the discharge as described in items (1) to (4), above, excepting discharges to the lake or surface waters are not authorized. Non-storm water discharges and the efforts to eliminate them or reduce their volume must be described in the Storm Water Pollution Prevention Plan (SWPPP).

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.

Dischargers of storm water runoff to surface waters of the United States are currently regulated by Order No. R6T-2005-0015-A1. The terms and conditions of the current Order have been 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: (1) a General NPDES Permit and WDRs for industrial storm water discharges associated with industrial activities, (2) General WDRs for discharge of storm water from industrial and small-scale construction and maintenance activities at marinas, and (3) General WDRs for maintenance dredging activities conducted on the California side of the Lake Tahoe HU.
2. Activities 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.

- d. The Marina Discharger has submitted a Marina Pollution Prevention Plan (MPPP) that describes BMPs that will ensure that nonpoint source discharges will comply with the Discharge Prohibitions (section IV) and Receiving Water Limitations (section VI) of this Order.
- e. The Marina Discharger's revised SWPPP incorporates BMPs, as feasible, to infiltrate and/or treat storm water runoff from existing and proposed impervious surfaces on the site.
- f. The Marina Discharger's revised 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. NOTIFICATION REQUIREMENTS

The Marina Dischargers previously covered under Board Order No. 2005-0015-A1 may obtain coverage under this Marina General Permit if they meet the eligibility requirements specified in section II.C of this Order and submit: (1) a complete and accurate NOI, (2) a revised SWPPP, (3) an MPPP, (4) a revised DMP, (5) a Marina Surface Water Monitoring Plan (MSWMP) that must be submitted by **April 13, 2012**, and (6) any additional information, requested pursuant to section II.C.4. of the Order. The NOI, SWPPP, MPPP, DMP, and any additional information as specified in II.C.4. of the Order must be submitted **by June 13, 2011**. The Marina Discharger's Annual Fee due on November 15th of each year will serve as the filing fee for coverage as a Marina Discharger; additional fees apply to dredging.

To receive coverage under the Marina General Permit for simple or complex maintenance dredging, dischargers must meet the eligibility requirements specified in section II.C and submit an application consisting of an NOI, a project description, BMP Project Plan, a DMP, and the required filing fee. The Project proposed dredging must employ dredging methods designed to minimize re-suspension of sediment, such as suction dredging or cutter head, as opposed to clamshell dredging techniques (see Attachment I for BMP requirements), wherever feasible. The project must also identify the presence of AIS and describe methods to remove AIS during dredging activity. The application must be submitted to the Lahontan Water Board at least 60 days before the dredging activity is scheduled. The project description must include: (1) a map that shows the boundaries and depths of the proposed dredging project; (2) a bathymetric survey conducted by a qualified surveyor delineating the pre-dredging lake bottom elevations; (3) the volume of material to be dredged; (4) a description of the dredging method to be employed; (5) location of dredge spoils disposal; (6) type and thickness of any turbidity barriers proposed for use, including a description of how the sides and bottoms will be anchored and the amount of freeboard; (7) a project schedule (dates, time, duration); (8) location of project access routes, haul routes, staging areas, and temporary storage areas; and (9) a site survey conducted by a qualified aquatic biologist regarding the presence or absence of Tahoe Yellow Cress and AIS.

If the dredging project involves fill below the ordinary highwater rim or beach replenishment, or if the U.S. Army Corps of Engineers requires the dredging project to comply with section 404 of the Clean Water Act, the Discharger must also submit a

complete application for section 401 Water Quality Certification (WQC) in accordance with Title 23, section 3856 of the California Code of Regulations. A copy of the section 401 WQC must be submitted with the NOI.

When dredging or construction activities require a lake or streambed alteration agreement with the California Department of Fish and Game (CDFG), the Discharger must provide a copy of the written agreement with the NOI.

The Discharger, upon written request, must submit additional information necessary to ascertain whether the discharge meets the criteria for coverage under this Marina General Permit.

No discharge for dredging activity under this Marina General Permit is authorized until a written NOA is received from the Lahontan Water Board Executive Officer or his or her designee or the permit application is deemed complete.

Notwithstanding the provisions of this section, appropriate projects may be brought to the Lahontan Water Board for consideration of adoption of an individual NPDES Permit when the Executive Officer deems it desirable or necessary to do so.

Coverage under the Marina General Permit may be revoked when the Marina Discharger changes ownership or dredging activities are complete as determined by the Water Board following any inspection that may be conducted in response to a request for revocation.

To terminate coverage under the Marina General Permit, the Discharger must complete and submit the Request for Permit Revocation Form (Attachment C) and any reports required by this Order 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.

Prior to the revocation of coverage under this Marina General Permit, the following conditions must be met:

- A.** A complete Request for Permit Revocation Form (Attachment C) has been submitted.
- B.** If applicable, the maintenance dredging and/or project construction is complete and there is no potential for dredging related discharge or construction related storm water pollution.
- C.** Dredging spoils and/or construction waste or other waste has been disposed of properly.
- D.** All elements of the Dredging BMP Project Plan or Construction Storm Water SWPPP have been completed.
- E.** Information required in the Monitoring and Reporting Program has been submitted.
- F.** Lahontan Water Board staff has inspected the site, if necessary.

The Discharger will receive written notification that permit coverage has been terminated by the Executive Officer or his or her designee.

If revocation of coverage under this Order is denied, the Executive Officer or his or her designee must return the Request for Permit Revocation with the reasons for denial provided in a written notification.

III. DISCHARGE DESCRIPTION

A. Discharge Description

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. Pollutants often associated with marina operations include: total petroleum hydrocarbon (TPH), bacteria, metals (aluminum, copper, iron, and zinc) and trash.

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 wash water is currently being disposed of at upland, lined concrete evaporation basins and is prohibited from being discharged under the Marina General Permit.

Maintenance dredging operations have the potential to re-suspend sediment resulting in increased turbidity to marina waters. Harbor sediment may also contain nutrients including nitrogen and phosphorus, TPH, and heavy metals such as copper from the passive leaching of marine coatings from boat hulls, and zinc from sacrificial anodes.

Storm water discharges for minor construction and maintenance activities authorized under this Marina General Permit are limited to those that disturb less than 1 acre of land. However, storm water discharges from small construction projects may still present the potential for discharge of sediment. Nutrients can 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 enrichment due to landscape activities. In addition, activities during construction activity, 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-2005-0015-A1 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 above, 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	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	--

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 were required:
 - a. Meet the minimum BMPs that were specified in Attachment D of Order No. R6T-2005-0015-A1. 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 were 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 was 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 were to be adequately protected from each use by installation of barriers and signs.

- e. Storm water runoff collection, pretreatment and/or infiltration disposal 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.
- f. Storm water runoff in excess of the design storm was to be discharged only to a storm drain or stabilized drainage, and was required to meet the storm water effluent limitations for discharges to surface water.
- g. If site conditions did not allow for adequate on-site disposal, all site runoff was to be treated to meet the storm water effluent limitations and the receiving water limitations.
- h. Storm water runoff handling and disposal facilities were to be cleaned and renovated annually.
- i. At no time was 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 was 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 was to be separated from surface waters and contained to minimize surface runoff.
- l. The Discharger was to consider and implement any applicable non-structural and structural BMPs identified in the SWPPP requirements specified in Attachment D of Order No. R6T-2005-0015-A1.
- m. The Discharger was to avoid the release of harmful cleaners and solvents to surface waters, and boat cleaning operations were to be performed on land wherever feasible. Detergents containing phosphorus, ammonia, sodium hypochlorite, chlorinate solvents, petroleum distillates, and cleaning compounds were discouraged. Detergents were not to contact surface waters.
- n. Work areas for boat repair were to be clearly marked. Hulls covered with bottom paint were not to be scraped underwater. All wastes associated with hull maintenance and cleaning (sanding, debris, etc) were to be collected and disposed of properly. Vacuuming was the preferred method of collecting these wastes. (This did not apply when algae was being removed from a hull provided removal occurred with a scrub brush and water only; algae removal using a scrub brush with any type of detergent, algaecide, or solvent was not allowed.)
- o. The Marina Discharger was to make available clearly labeled receptacles for the disposal of waste oil, waste gasoline, used antifreeze, and waste diesel.
- p. Dischargers were to implement BMPs to prevent or reduce the amount of petroleum hydrocarbons from entering the surface waters. BMPs to control discharges of fuel were suggested in Attachment F of Order No. R6T-2005-0015-A1.

- q. Dischargers were 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 were to install and maintain sewage pumpout facilities at their marina. Fixed-point sewage pumpout facilities were required at marinas that: (1) leased 25% 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 were not required to have fixed-point pumpout. Instead, these marinas were 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 were provided in Attachment G of Order No. R6T-2005-0015-A1.
5. Dischargers were required to develop and implement a SWPPP in accordance with Attachment D (of Order No. R6T-2005-0015-A1). 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-point source discharges.

IV. 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 and maintenance dredging 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 and maintenance dredging 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 and 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 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.
3. Maintenance dredging is categorically exempt from the provisions of CEQA in accordance with title 14, California Code of Regulations, chapter 3, section 15304(g.)

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 "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.

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). In addition, 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 ground water 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.

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 must be approved by the State Water Board, the Office of Administrative Law and USEPA to be in legal effect.

The Marina General Permit does not cover new Marina facilities or significant increased discharges of storm water from the existing marinas. Maintenance dredging constitutes a potential in-lake source of pollutants not subject to NPDES or Tahoe TMDL requirements, but subject to other pollutant control requirements. 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 construct 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. 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.

Infiltrating runoff volumes generated by the 20 year, 1-hour storm may not be possible in some locations due to shallow depth to seasonal ground water levels, unfavorable soil conditions, or other site constraints such as existing infrastructure or rock outcroppings. In the event that site conditions do not provide opportunities to infiltrate the runoff volume generated by a 20 year, 1-hour storm, Marina operators must either (1) meet the numeric effluent limits in Table 5.6-1 of the Basin Plan, or (2) document coordination with the local municipality or state highway department to demonstrate that

shared stormwater treatment facilities treating Marina discharges and public right-of-way stormwater are sufficient to meet the municipality's average annual fine sediment and nutrient load reduction requirements.

The Marina General Permit provides for re-opening of the permit to incorporate applicable provisions of the TMDL (see section VII.C.1 of the Order).

E. Other Plans, Policies and Regulations

1. Antidegradation Policy. 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. Maintenance dredging discharges are temporary and subject to controls that would result in only short-term changes, if any, in water quality, and that would maintain all beneficial uses. The Marina General Permit contains monitoring requirements for maintenance dredging that require corrective actions when samples taken from outside the containment area (or 20 feet from the dredging equipment when containment is not used) exceeds the water quality objectives or the background concentration for turbidity, total nitrogen or total phosphorus. Therefore, the Marina General Permit provides controls to ensure that maintenance dredging does not lower water quality in Lake Tahoe.

40 CFR 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. The permitted discharge must be consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16. No change is proposed from the existing permitted dischargers and the effluent limitations and control measures are the same or, in some cases, are more stringent than in the prior Marina General Permit, Order No. R6T-2005-0015-A1. Thus no degradation is anticipated or authorized.

2. Anti-Backsliding Requirements. Sections 402(0)(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 effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R6T-2005-0015-A1. Therefore, this Order is in compliance with the anti-backsliding provisions of 40 CFR section 122.44.

V. 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, previously established requirements in Order No. R6T-2005-0015-A1, and the USEPA 2009 MSGP. 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 include a wide variety of sources, including improper dumping, spills, 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). In the 2009 MSGP, USEPA used best professional judgment (BPJ) to express BPT/BAT/BCT effluent limitations as specified pollution prevention control measures. Control measures applicable to all industrial dischargers are described in section 2.1.2 of the MSGP and consist of:
 - 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, snowmelt, 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 2009 MSGP establishes the following additional "Technology-Based Effluent Limits" for Sector Q—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 within the Lake Tahoe Basin. Order No. R6T-2005-0015-A1 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 a minimum (6 standard pH units) and maximum (9 standard pH units) limitation for pH for discharges to land treatment systems as described in Attachment Y, Monitoring Form, in Order No. R6T-2005-0015-A1. Effluent limitations contained in Table 5.6-1 of the Basin Plan, and/or established in Order No. R6T-2005-0015-A1 are summarized below:

Table F-2. Storm Water Effluent Limitations from Order No. R6T-2005-0015-A1

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 units.

D. Basin Plan Narrative Effluent Limits

The Discharger must comply with Section 5.6 of the Basin Plan which states:

"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. If surface runoff enters a project site from upgradient, its quality and volume may together with the quality and volume of runoff generated onsite, affect the quality of the storm water leaving the site. Regional Board storm water permits for sites where offsite storm water enters the property will take these effects into consideration. In general, where the quality of runoff entering the site is worse than that of runoff generated on site, there should be no statistically significant increase (at a 90 percent confidence level) in pollutants in the water discharged from the site.

Any waters discharged into land treatment systems should not contain excessive concentrations of nutrient 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 the USEPA 2009 MSGP. USEPA found that these non-numeric effluent limitations meet BPT/BCT/BAT. Consistent with the 2009 MSGP, this Marina General Permit also contains benchmarks to ensure that the BMPs are performing at the levels that represent BPT/BCT/BAT. Further this Marina General Permit incorporates the numeric and narrative effluent limitations established in the Basin Plan, and carries over the pH numeric effluent limitation for discharges to land treatment facilities from Order No. R6T-2005-0015-A1.

Table F-3. Numeric Effluent Limitations

Parameter	Units	Maximum Concentration for Discharger 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	†	--

† The pH must range between 6 and 9 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-2005-0015-A1 included a requirement to develop and implement a SWPPP with applicable BMPs. This Marina General Permit carries over the requirements to implement a SWPPP. Further, additional BMPs have been established in this Marina General Permit to be consistent with the requirements found in the 2009 MSGP for marina activities. USEPA determined that these BMPs constitute BPT/BCT/BAT technology-based effluent limits.

This Marina General Permit requires Marine 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). BMPs for maintenance dredging activities were carried over from Order No. R6T-2005-0015-A1.

Order No. R6T-2005-0015-A1 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 the marina owners previously completed projects to meet these requirements as approved under individual WDRs from the 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-2005-0015-A1:

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 basin 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 GTR 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. RT6-2005-0015-A1 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.

Table 5.1-3 of the Basin Plan is summarized in Attachment L of this Marina General Permit and establishes receiving water quality objectives for total nitrogen, total phosphorus, and total iron for some water bodies that may be more stringent than the effluent limitations established in Section 5.6 of the Basin Plan. In addition, Table 5.1-3 establishes effluent limitations for boron, chloride, sulfate, and total dissolved solids that are applicable to certain water bodies in the Lake Tahoe Hydrologic Unit. Order No. R6T-2005-0015-A1 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 Section 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. In Order No. R6T-2005-0015-A1, the Lahontan Water Board determined that establishing this water quality objective as a receiving water limitation was protective of water quality. This Marina General Permit carries over the water quality objective for pH as a receiving water limitation.

Due to the presence of marine sanitation devices, portable heads, portable toilets, and sewage holding tanks and the synergistic 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 Section 5.1 of the Basin Plan for toxicity and coliform, Order No. R6T-2005-0015-A1 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.

Section 5.6-1 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-2005-0015-A1 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 Section 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. The effluent limitations in this Order are at least as stringent as the effluent limitations in Order No. R6T-2005-0015-A1.

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-2005-0015-A1 and does not extend the coverage of the Marina General Permit beyond the types of dischargers previously authorized to discharge under Order No. R6T-2005-0015-A1. 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 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	Effluent Limitations	
		Max. Concentration for Discharge to Land Treatment Systems ¹	Max. Concentration for Discharge to 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
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.

²The pH must range between 6 and 9 standard units.

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. If constituent concentrations of waters entering the marina exceed the numerical limitations specified above, there must be no increase in the constituent concentrations in the waters that are discharged from the marina.
- 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. Interim Effluent Limitations – Not Applicable

J. Reclamation Specifications – Not Applicable

K. Benchmark Levels for Storm Water Associated with Industrial Activity

Order No. R6T-2005-0015-A1 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

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

effectiveness of the implemented BMPs. Benchmark parameters included in Order No. R6T-2005-0015-A1 were total suspended solids (TSS), specific conductance, aluminum (total), iron (total), lead (total) and zinc (total). These benchmark parameters have been carried over in this Marina General Permit, with the exception of iron. Iron is monitored for compliance with the effluent limitation, as also required in the Order No. R6T-2005-0015-A1. The iron effluent limitation is more stringent than the benchmark and therefore, the benchmark for iron was not carried over in this Marina General Permit. The benchmark levels for lead and zinc are now based on hardness, consistent with the benchmarks established in the 2009 MSGP. Further, this Marina General Permit has added copper to the benchmark parameters. Copper has been identified as a pollutant of concern in some California marinas.

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

VI. 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 Lake Tahoe.

VII. 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-2005-0015-A1 and the 2009 MSGP. 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). The inspection forms are based on the forms provided in the 2009 MSGP. Use of these inspection forms will ensure consistent inspection and reporting practices among the Marina Dischargers and serve as a checklist for the required inspection and reporting requirements.

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). The inspection forms are based on the forms provided in the 2009 MSGP. Use of these inspection forms will ensure consistent inspection and reporting practices among the Marina 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, consistent with the requirements of the 2009 MSGP. The Marina General Permit requires that the first storm water discharge resulting from the spring snow melt be sampled when possible, and a second sample to be taken when a discharge occurs after 72 hours of no recorded precipitation.

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 benchmark sampling events, distributed throughout the year are required during the first year 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.

Once it is mathematically certain that the average of the four consecutive samples will exceed the benchmark (i.e., the sum of the samples exceeds four times the benchmark), the Discharger must upgrade the BMPs and begin a new round of benchmark sampling. This must continue until the average concentration from a consecutive series of four benchmark samples is less than or equal to the benchmark

for each parameter. These requirements are consistent with the applicable requirements in the 2009 MSGP.

Order No. R6T-2005-0015-A1 required monitoring only during regularly scheduled operating hours during the marina operating season (November 1 through the following October 31 of each year). This Marina General Permit requires monitoring throughout the year when storm water discharges occur during the hours of 7:00 a.m. to 10:00 p.m. This extended sampling period is necessary to capture the discharge from the spring snow melt and to ensure that the Marina 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

1. Surface Water

This Marina General Permit requires the Marina Dischargers to conduct a Marina Surface Water Monitoring Program (MSWMP) to assess the water quality in marina waters in the Lake Tahoe HU. Marina Dischargers must implement an individual MSWMP. Sampling must be conducted according to the requirements specified in Attachment E of this Marina General Permit.

2. Dredging Project Surface Water Monitoring

Order No. R6T-2005-0015-A1 required monitoring for turbidity outside of the dredged containment area during dredging operations. This Marina General Permit has carried these requirements over and expanded the analytes to include total nitrogen and total phosphorus. This monitoring is required to ensure that maintenance dredging activity does not contribute to the water quality impairment in Lake Tahoe.

VIII. 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 and/or Maintenance Dredging BMP Project Plan that establishes minimum BMPs, based on Order No. R6T-2005-0015-A1, the State-wide General Permit for Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ), and the 2009 MSGP provisions applicable to marina facilities.

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, Marina 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 Marina Dischargers to 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.

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 General Permit.

7. Compliance Schedules – Not Applicable

IX. 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, and for maintenance dredging. As a step in the WDR adoption process, the Lahontan Water Board staff has developed tentative WDRs. The Lahontan Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Lahontan Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through **<notification>** on **<DATE>**.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit 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 **<DATE>**.

C. Public Hearing

The Lahontan Water Board will provide opportunity for a public hearing on the tentative WDRs if so requested by a Discharger or an interested person during its regular Board meeting on the following date and time and at the following location:

Date: **April 13, 2011**
Time: **<TIME to be determined>**
Location: **<LOCATION to be determined>**
<LOCATION ADDRESS to be determined>
<South Lake Tahoe, CA, ZIP>

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 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), 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 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.

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 corrective actions. 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,
- C.** Summary of potential pollutant sources,
- D.** Description of control measures,

- E. Schedules and procedures for inspections and monitoring, and
- F. 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 showing all of the following:
 - 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 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. **Non-storm water Discharges.** Document the presence of all 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 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/stormwater/msgp), National Menu of Storm Water BMPs (www.epa.gov/npdes/stormwater/menueofbmps), and National Management Measures to Control Nonpoint Source Pollution from Urban areas (www.epa.gov/owow/nps/urbanmm/index.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 design 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 in the project area. Once per week the Marina 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 Marina 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 on-going dredging or 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 1 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 the 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.

RENTAL

ATTACHMENT H

MARINA POLLUTION PREVENTION PLAN

- I. The Marina 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 Marina 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 marina 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 Marina 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 Marina Discharger, other than as a condition of the lease or launch agreement.
3. **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.

- 4. Educate and Provide Boaters Incentives for AIS prevention.** Marina 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.
- 5. 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.
- 6. Styrofoam and Plastic Containers.** Marina 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.
- 7. Fish Cleaning Waste.** Marina Dischargers must implement measures to prevent the discharge of fish cleaning wastes to marina waters.
- 8. 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 commingle with storm water runoff.
- 9. Label Waste Containers.** Dischargers must make available clearly labeled receptacles for the disposal of waste oil, waste gasoline, used antifreeze, and waste diesel.
- 10. Marina 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.

11. Maintenance of Landscaped Areas. The Marina Dischargers must maintain landscaped areas using drought resistant plants and, minimize the use of fertilizer and pesticides.

12. Control of Pet Waste. Marina 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.

13. 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.

14. 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, 2002, the following engine types are no longer allowed on all lakes in the Tahoe Region:
 - i. Any 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.

15. 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 may 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.

16. 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, Marina 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 $\frac{1}{2}$ 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

MAINTENANCE DREDGING PROJECT PLAN AND BMPS

- A.** The Dredging Project Plan must be submitted with a complete project description, that must include, at a minimum, the following:
1. A bathymetric survey conducted by a qualified surveyor of the project area prior to dredging.
 2. A map that shows the boundaries and depths of the proposed dredging project;
 3. The volume of material to be dredged;
 4. A description of the dredging method to be employed;
 5. Location of dredge spoils disposal;
 6. Type and thickness of any turbidity barriers proposed for use, including a description of how the sides and bottoms will be anchored and the amount of freeboard;
 7. A project schedule (dates, time, duration);
 8. Location of project access routes, haul routes, staging areas, and temporary storage areas; and
 9. Information (e.g., site survey) regarding the presence or absence of Tahoe Yellow Cress and/or the presence of aquatic invasive species. A site survey must be performed by a qualified aquatic biologist prior to dredging to identify habitat for the Tahoe Yellow Cress.
- B.** Maintenance dredging operations must be conducted in a manner to minimize the re-suspension of sediment and pollutants, and to protect habitat areas. If Tahoe Yellow Cress is identified, BMPs must be implemented to protect the Tahoe Yellow Cress and its habitat area. BMPs may include:
1. Protective fencing and signing,
 2. Prohibited vehicle and foot traffic,
 3. Prohibited storage of dredged material in habitat area, and/or
 4. Other identified control measures.
- C.** Dredging activities present a potential opportunity for removing AIS, such as Eurasian water milfoil. Project proponents are encouraged to partner with other

organizations such as the Tahoe Regional Planning Agency to explore possible cost-sharing opportunities to optimize removal of AIS during dredging activities.

- D.** Dredging activities must employ low impact techniques such as suction dredging or cutterheads as opposed to clamshell dredging to the extent possible, To minimize the re-suspension of sediment and associated pollutants. Containment structures such as caissons must be employed when necessary to prevent the release of suspended sediments. If containment curtains are employed, the Project Plan must specify the type and thickness of the containment curtain and include specifications for how the curtain will be anchored and how much freeboard will be maintained.
- E.** Dredging operators must operate dredging equipment in a manner that minimizes turbidity in the surrounding water (e.g., controlling the speed or angle of dredging equipment).
- F.** Continuous visual inspection must be made of the containment structure, spoils storage area, and the dredging equipment to ensure total containment of disturbed sediments and the absence of illegal discharges. If turbidity plumes are detected outside of the containment structures, and/or if petroleum product sheens are detected outside of the protective oil barriers, dredging must cease immediately and action must be taken to correct the problem.
- G.** As described in Attachment E, section IV,D.2 turbidity measurements must be recorded at a minimum of every 2 hours from inside the containment area and from no more than 5 feet outside of the containment area. When no containment is used due to low-impact dredging techniques, turbidity must be measured every 2 hours from a location along approximately the 20-foot radius of the dredging equipment. When levels exceed 3 NTU or the background turbidity levels, whichever is higher, outside of the containment area or within the approximate 20-foot radius when no containment structure is employed, corrective measures must be taken in an attempt to reduce levels to below Receiving Water Limitations or background concentrations.
- H.** At a minimum, samples will be taken at least once per day during dredging activity at the same location as the turbidity measurement and analyzed for total nitrogen and total phosphorus. If levels exceed the Receiving Water Limitation (e.g., 0.15 mg/L for total nitrogen and/or 0.008 mg/L for Total Phosphorus) or the background concentrations, whichever is higher, corrective measures must be taken in an attempt to reduce levels to below Receiving Water Limitations or background concentrations.
- I.** Daily written records must be kept of the inspections noting any problems or violations, monitoring results, and a description of corrective actions, if any.

- J.** If dredged spoils will be used for beach replenishment BMPs must be described in the Project Plan to prevent material from being discharged to surface water during the initial placement on the beach.
- K.** The Project Plan must specify where the dredged spoils will be disposed of. If hauling material off site, include site access and hauling routes, hauling capacity (in cubic yards), estimated number of trips, and methods to be employed to control off-site tracking of dredged materials. It is the Discharger's responsibility to conduct the necessary sampling and analysis of the dredged materials if material characterization is required before placing in the final disposal site.
- L.** The Project Plan must describe measures to prevent and control potential leaks/spills of petroleum products such as fuels and lubricating materials, and other potentially hazardous materials. Measures may include routine equipment inspection and maintenance to minimize the potential for leaks and may also include drip pans, absorbents, etc. Secured storage areas for fuels and chemicals should be established and sufficient spill cleanup materials should be stored at the site for use in responding to accidental spills.
- M.** The following BMPs must be implemented as applicable to prevent and minimize discharges associated with maintenance dredging.
 - 1. All dredging activities must cease and temporary control measures must be immediately installed if adverse weather conditions threaten to increase the discharge or transport of sediment, nutrients, or other pollutants from the project area.
 - 2. Specialized dredging equipment designed to reduce impacts to water quality must be used whenever possible.
 - 3. Operational controls must be implemented to minimize turbidity.
 - 4. Temporary containment structures, such as turbidity barriers or caissons (sealed underwater structures), must be designed and installed so that receiving water limitations and prohibitions are not violated outside the project area.
 - 5. Containment structures must remain in place until the threat of suspended sediment and nutrient transport ceases to exist and the Executive Officer of the Lahontan Water Board or his or her designee has approved the removal of the containment structure.
 - 6. Discharge from dredged spoils dewatering into surface waters must be only within areas contained and controlled by turbidity barriers or equally effective containment, and minimized by the use of Best Management Practices.

7. Dredged slurry produced by hydraulic dredges and disposed of to the sanitary sewer must be in accordance with any applicable pre-treatment requirements of the affected sewer agency.
8. Lined or sealed trucks must be used to transport dredged sediments to prevent the leakage of water contained in the sediments.
9. Perimeter berms or other upland containment structures must be placed around de-watering or settling areas to prevent the dredged sediments from being discharged to surface waters during precipitation.
10. If settling basins are used for purposes of dewatering, flocculants may be used if authorized by the Lahontan Water Board.
11. Any non-floating mechanical equipment to be operated in the Lake must be steam cleaned and inspected prior to use, and operated within areas enclosed by turbidity and oil barriers.
12. Vehicle use in unpaved areas must be conducted in such a way as to minimize soil disturbance or compaction. All areas disturbed by dredging equipment must be adequately re-stabilized or re-vegetated. Re-vegetated areas must be continually maintained until vegetation becomes established.
13. At no time must excavated spoils be placed in surface water 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.

ATTACHMENT J – LEGALLY ESTABLISHED LAKE BOTTOM ELEVATIONS

Marina	Authorized lake bottom elevation (ft)	Current WDID #s	WDID #s associated with a NOT
Camp Richardson		6A098903001	
Homewood	6217	6A310303007	6A318901010
Lakeside	6219.3		6A09S015259
Meeks Bay		6A090050000 & 6A099407004	
North Tahoe	6219	6A310080701 & 6A310405006	6A31S000190
Obexers Boat Company	6215	6A310503006	6A318903007
Sierra Boat Company	6219	6A318901008	6A31S001677
Ski Run-Inner boat harbor	6219	6A090007007 & 6A090409003	6A09S011561
Ski Run-Marina entrance channel (open water channel -max of 40 ft wide x 1200 feet long)	6219		
Star Harbor	6219	6A310409002	
Sunnyside (Order No. 6-91-840) channel	6215	6A318901005 & 6A310712002	6A31S011113
Sunnyside (Order No. 6-91-840) marina	6219		
Tahoe City Marina	6217	6A3189010009	
Tahoe Keys-East Channel (sheet pile access channel)	6215	6A091807005 & 6A09210002	6A09S012415
Tahoe Keys-East Channel, Inner Marina	6219		
Tahoe Keys-East Channel-within a 250' (length) x 80' (top width) corridor extending lakeward of the high water line	6215		
Tahoe Keys-West Channel-within a 850' (length) x 40' (bottom width) corridor extending lakeward of the high water line	6217		
Tahoe Keys-West Channel Inner Lagoons (TRPA ltr dated October 21, 1994 only allows to 6219)	6215		
Timber Cove		6A098906005	6A09S015311
<p>Contact TRPA -if there are no historic lake bottom elevations, the marina may draw core samples to establish authorized lake bottom elevations. Distinguish the depth of sedimentation from the underlying "capped material." Core can show deposition and lack of oxygen that would indicate an encapsulated layer.</p>			

ATTACHMENT K

**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 Marina Dischargers must submit 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 K, questions 1 through 50).

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 (Go to Section III for Maintenance Dredging)

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.

Fueling Practices

24. 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. _____

25. Do you provide absorbent pads to your clientele? Yes No

26. Are these products available free of charge? Yes No

27. Is your fuel dock equipped with spill containment products? Yes No

28. Do you operate a pump-out facility for oily bilge water? Yes No

29. Is the pump-out facility staffed full time by marina personnel? Yes No

30. What is the total volume of oily bilge water pumped out during the reporting year?

31. Identify the facility, name and address where oily bilge water is disposed.

32. Are there any additional methods used at your marina to minimize fuel entering the lake?

Yes No

33. 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

34. 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

35. 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.

36. How many fixed system sewage pumpout or a portable sewage pumpout units does your facility maintain? _____

37. Is the sewage pump-out facility staffed by marina personnel during operating hours?

Yes No

38. Describe your maintenance, cleaning procedures, and schedules for your pumpout facilities.

39. 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

40. What is the total volume that the sewage pumpout facility can hold? _____

41. 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						

42. Was any sewage spilled at your marina this boating season? Yes No

43. If yes, did you provide a copy of the spill report? Yes No

Restroom Facilities

44. How many public restroom toilets are located at your marina? _____

45. How many public shower stalls are located at your marina? _____

46. Are signs posted to direct boaters to restroom facilities? Yes No

Additional Information

47. Is your marina certified as a Clean Marina? Yes No

E. Marina Operations—Compliance with Monitoring and Effluent Limitations

48. 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)

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. 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
May						
June						
July						
August						
September						
October						

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
1 st Storm Event						
2 nd Storm Event						
3 rd Storm Event						
4 th Storm Event						

STORM WATER SAMPLING AND ANALYSIS

Storm Water Sampling Locations

49. How many storm water discharge locations are at your facility? _____

50. 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

51. How many storm events did you sample? _____

52. If less than the required two storm events, provide a detailed explanation.

53. Did you collect storm water samples from the first snow melt runoff as required? Refer to 6.a. of the Monitoring and Reporting Program Yes No

If you answered No, provide an explanation.

54. 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).

55. 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.

56. 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

57. 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 Table K-1, 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, and analysis required for maintenance dredging sampling. When laboratory reports are submitted, analytical results must specify the correct method detection limit of each analytical parameter.

Table K-1. Summary of Marina Storm Water Monitoring Requirements

Activity	Frequency	Follow-up Corrective Action
Consult National Weather Service Forecast Website http://www.srh.noaa.gov/	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.		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	This may replace the September monthly inspection. Additional requirements described in Attachment E. of the Marina General Permit.
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	4 per year until average concentrations are less than benchmarks.	Quarterly monitoring (4 samples distributed throughout reporting year). Once it becomes mathematically certain that the average concentration will exceed the benchmark, take corrective actions, and conduct a second round of quarterly monitoring for that pollutant. Repeat until the average concentration from quarterly monitoring is less than the benchmark. Samples to be taken within the first 30 minutes of the discharge. Sampling may be discontinued once the average concentration from 4 quarterly samples is below the benchmark for all specified pollutants.
Storm water Discharge Monitoring for Effluent Limited Pollutants	2 per year.	All storm water discharges to be monitored at least twice per year. The first sampling event to be conducted during the spring snow melt. The second event to be conducted during a discharge resulting from a rain event that has been preceded by at least 72 hours with no measurable rain. Samples to be taken during the first 30 minutes of discharge. If effluent limits are exceeded, take corrective actions and re-sample within 30 days or next qualifying event. If second sample exceeds effluent limits, file an Exceedance Report with the Lahontan Water Board within 30 days after receipt of laboratory results.

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.)

66. 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.

67. 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

68. If yes, have you filed an NOA under this Marina General Permit for construction activity?

Yes No

69. 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 (Order No. R6T-2005-0007, NPDES No CAG 616002, or its successor).

E. Did dredging occur in Tahoe Yellow Cress habitat? Yes No

1. If yes, describe BMPs employed to protect the habitat and plants.

F. Describe project phase at the end of the reporting year.

1. Are dredging activities under the NOI complete? Yes No

2. If No, describe the planned dredging activities for the next year, including locations (Latitude and Longitude), anticipated cubic yards of dredged material to be removed, and anticipated disposal methods and locations.

3. If Yes, have you submitted turbidity levels from a composite sample taken from within the containment structure to the Executive Officer of the Lahontan Water Board? Yes No

4. Have you removed the containment structure? Yes No

ATTACHMENT L

WATER QUALITY OBJECTIVES (WQOs) FOR CERTAIN WATER BODIES LAKE TAHOE HYDROLOGIC UNIT

Table L-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
- SO₄ Sulfate
- Fe Iron, Total
- N Nitrogen, Total
- P Phosphorus, Total
- TDS Total Dissolved Solids (Total Filterable Residues)

Table L-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 (g 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.

