ATTACHMENT Y

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

MONITORING AND REPORTING PROGRAM
R6T-2005-0015-A1
NPDES CAG616003

FOR

INDUSTRIAL STORMWATER
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
AND GENERAL WASTE DISCHARGE REQUIREMENTS (WDRs)

FOR

DISCHARGES OF STORMWATER RUNOFF ASSOCIATED WITH MARINAS AND MAINTENANCE DREDGING IN THE LAKE TAHOE HYDROLOGIC UNIT

REQUIREMENTS FOR LONG-TERM OPERATION AND MAINTENANCE OF THE MARINA:

1. Implementation Schedule

Each Discharger (marina operator/owner or designated staff) shall submit a written Monitoring and Reporting Program (MRP) for the marina covered by this Marina General Permit in accordance with the following schedule:

For marina operators currently enrolled in the Marina General Permit, you must continue to implement your existing MRP during the 2004/2005 (November 1-October 31) operating season. The updated Monitoring and Reporting Program contains additional monitoring requirements that were not required by the previous Marina General Permit. Therefore, you must revise your existing MRP so that it includes the requirements contained in all of the following sections of this Monitoring and Reporting Program. You must submit your revised MRP to the Regional Board by **November 15, 2005** and the MRP shall be implemented at the start of the 2006 operating season.

2. Objectives

a. The facility's MRP shall be prepared and implemented to provide indicator monitoring information to:

   i. Ensure stormwater discharges, non-stormwater discharges, non-point source discharges, and discharges associated with maintenance dredging are in compliance with the Discharge Prohibitions, Numeric and Narrative Objectives, Stormwater Effluent Limitations, and USEPA Benchmark Concentrations in this Marina General Permit.

ii. Ensure practices at the marina to reduce or prevent pollutants (and their sources) in surface water discharges, stormwater discharges, and non-stormwater discharges are evaluated and revised to meet changing conditions.

iii. Aid in the implementation of the SWPPP required by Attachment D of this Marina General Permit.

iv. Measure the effectiveness of best management practices (BMPs) to prevent or reduce pollutants in stormwater discharges.

b. To achieve the MRP objectives, Dischargers shall prepare written facility-specific MRP in accordance with all applicable MRP requirements of this Section. The MRP shall be revised when necessary and be readily available for review by the facility's employees or by California Regional Water Quality Control Board-Lahontan Region (Regional Board) inspectors.

Much of the information necessary to develop the MRP, such as discharge locations, drainage areas, pollutant sources, etc., should be described in the Stormwater Pollution Prevention Plan (SWPPP). The MRP shall include all monitoring procedures and instructions, location maps, forms and checklists, and relevant copies of or specific references to other documents that satisfy the requirements of this Section.

3. General Requirements (Refer to Table 2, Page 12, for a Summary of Monitoring Activities Required by the Marina General Permit.)

All Dischargers covered under this Marina General Permit for the Long-term Operation and Maintenance of the Marina are required to:

a. Visually observe authorized and unauthorized non-stormwater discharges. (See Section 4, Pages 2 and 3.)

b. Visually observe stormwater discharges from four storm events during the marina's operating season. (See Section 5, Page 3.)

c. Visually observe the facility before every anticipated storm event to locate and manage obvious pollutant sources. (See Section 7, Pages 4 and 5.)

d. Collect and analyze stormwater samples from two storm events occurring during the marina's normal operating season. Analysis must include: (a) the minimum indicator parameters: pH, Total Suspended Solids (TSS), Oil and Grease, Specific Conductance, Turbidity, Total Nitrogen, and Total Phosphorus, and (b) additional industry specific parameters dependent on the facility's SIC code. (For marinas, SIC Code 4493, additional parameters include Aluminum (Al), Iron (Fe), Lead (Pb), and Zinc (Zn). (See Section 6, Page 4.)

The requirements listed in 3.a-d above are defined in more detail below in Sections 4-7, Pages 3-5.

4. Non-Stormwater Discharge Visual Observations

a. Marina operators shall visually observe all drainage areas within their facilities for the presence of unauthorized non-stormwater discharges.

b. The visual observations required above shall occur monthly, during daylight hours, on days with no stormwater discharges, and during scheduled marina operating hours[1]. Monthly visual observations shall be conducted during each month that the marina is operating.

c. Visual observations ~~shall~~ must document the presence of any discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Records shall be maintained of the visual observation dates, locations observed, observations, and response taken to eliminate unauthorized non-stormwater discharges and to reduce or prevent pollutants from contacting non-stormwater discharges. These observation records must be submitted yearly with the Annual Report.

5. Stormwater Discharge Visual Observations

a. Marina operators shall visually observe stormwater discharges from at least four storm events per operating season of the marina. When possible, these visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained stormwater shall occur at the time of release.

b. Visual observations are only required of stormwater discharges that occur during daylight hours that are preceded by at least three (3) working days[2] without stormwater discharges and that occur during scheduled marina operating hours.

c. Visual observations shall document the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in stormwater discharges. If visual observations indicate the presence of pollutants in stormwater, the Discharger should identify additional corrective actions that may be implemented at the site to prevent or reduce pollutants in stormwater. The Discharger shall report these proposed corrective actions to the Regional Board with the submittal of the Annual Report.

6. Stormwater Sampling and Analysis

a. Marina operators shall collect stormwater samples during the first hour of discharge from (1) the first storm event during the marina's operating season when possible, and (2) at least one other storm event during the marina's operating season. If the Discharger cannot obtain a stormwater sample from the first storm event of the season, the Discharger shall collect stormwater samples from two subsequent storm events during the marina's operating season.

All stormwater discharge locations shall be sampled from the area immediately upgradient of the surface water and/or infiltration facility; stormwater must be sampled before it discharges to a surface water. Sampling of stored or contained stormwater shall occur at the time the stored or contained stormwater is released. Marina operators that do

[1] *"Scheduled marina operating hours" are the time periods when the marina is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.*

[2] *Three (3) working days may be separated by non-working days such as weekends and holidays provided that no stormwater discharges occur during the three (3) working days and the non-working days.*

not collect samples from the first storm event during the marina's operating season are still required to collect samples from two other storm events during the marina's operating season and shall explain in the Annual Report why the first storm event was not sampled.

b. Sample collection is only required of stormwater discharges that occur during scheduled marina operating hours and that are preceded by at least (3) three working days without stormwater discharge.

c. Dischargers shall analyze samples for:

i. the minimum indicator parameters: pH, Total Suspended Solids (TSS), Specific Conductance, Oil and Grease, Turbidity, Total Nitrogen as N, and Total Phosphorus as P. To evaluate these minimum indicator parameters, Dischargers shall collect stormwater samples during the first hour of discharge from two storm events (including the first storm if possible) of the marina's operating season.

ii. additional facility-specific analytical parameters that, for marinas, include Aluminum (Al), Iron (Fe), Lead (Pb), and Zinc (Zn). To evaluate these additional facility-specific parameters, Dischargers shall collect stormwater samples during the first hour of discharge from two storm events (including the first storm if possible) of the marina's operating season.

d. Dischargers shall select analytical test methods and appropriate detection limits from the list provided on Page 11, Table 1- "Parameter Benchmark Values, Test Methods, Detection Limits, and Reporting Units."

e. Dischargers shall use the Monitoring Form provided on Page 14 to determine if the concentrations measured in the stormwater samples exceed the USEPA benchmark values and/or the Stormwater Effluent Limits. The original lab results should be transferred to the Monitoring Form provided on Page 14. Compare the results to the values and limits on the Monitoring Form to determine if the stormwater at the facility is violating the USEPA benchmark values and/or the Stormwater Effluent Limits.

f. If the Monitoring Form, indicates that the stormwater at the facility exceeds the USEPA Benchmarks and/or Stormwater Effluent Limits, the Discharger shall identify and implement corrective actions to prevent or reduce pollutants from entering stormwater. The Regional Board may require the Discharger to conduct further investigation to determine and eliminate the circumstances and the sources that contributed to the violation.

g. All stormwater sample collection preservation and handling shall be conducted in accordance with Section 9, Page 6 –"Stormwater Sample Collection and Handling Instructions."

d. Dischargers are not required to collect stormwater samples under the following conditions: (i.) during dangerous weather conditions such as flooding or electrical storms; (ii.) outside of scheduled operating hours; or (iii.) when a storm event in the preceding three workdays (consecutive or non-consecutive) produced a discharge.

7. Visually Observe Stormwater Discharge Locations (Visual observations of stormwater discharge locations will help the Marina operator determine if the stormwater samples are being collected at locations most representative of the Marina's stormwater quality.)

a. Marina operators shall visually observe stormwater discharges from all drainage areas that represent the quality and quantity of the marina's stormwater discharges from the storm event.

b. Prior to anticipated storm events, Dischargers shall visually observe all stormwater drainage areas during operating hours to identify any spills, leaks, or uncontrolled pollutant sources and implement appropriate corrective actions. Pre-storm inspections are only required during operating hours. Dischargers are not required to conduct pre-storm visual observation within fourteen (14) days of a previous pre-storm visual observation.

c. If visual observations of stormwater sample location indicate the marina's stormwater discharges are commingled with run-on from surrounding areas, the Discharger should identify and collect samples from collection locations that are not commingled with run-on.

   Locations where stormwater samples are collected should represent the quality and quantity of the marina's stormwater discharges from the storm event. If visual observations indicate that run-on from other properties is influencing the quality of the stormwater at the marina, the marina operator may also choose to collect a sample upgradient of the marina influence.

d. If visual observations of sample locations indicate that the sample collection locations are difficult to observe or sample (e.g., sheet flow, submerged outfalls), marina operators shall identify and collect samples from other locations that represent the quality and quantity of the marina's stormwater discharges from the storm event.

e. Dischargers are not required to conduct visual observations under the following conditions: (i.) during dangerous weather conditions such as flooding or electrical storms; (ii.) outside of scheduled operating hours; or (iii.) when a storm event in the preceding three workdays (consecutive or non-consecutive) produced a discharge.

8. Visual Observation and Sample Collection Exceptions

Marina operators are required to collect samples and conduct visual observations at the beginning of marina's operating season and throughout the marina's operating season until the minimum requirements of Sections 4, 5, 6, and 7 are completed with the following exceptions:

a. A marina operator is not required to collect a sample and conduct visual observations in accordance with Sections 4, 5, 6, and 7 due to dangerous weather conditions, such as flooding, electrical storm, etc., when stormwater discharges begin after scheduled marina operating hours or when stormwater discharges are not preceded by three working days without discharge. Visual observations are only required during daylight hours. Marina operators that do not collect the required samples or make visual observations during a wet season due to these exceptions shall include an explanation in the Annual Report why the sampling or visual observations could not be conducted.

b. A marina operator may conduct visual observations and sample collection more than one hour after discharge begins if the marina operator determines the requirements of Sections 4-7 will be better satisfied. The marina operator shall include an explanation in the Annual Report why the visual observations and sample collection should be conducted after the first hour of discharge.

c. If seasonal drainage conditions make the collection of a stormwater sample infeasible, the marina operator may request a reduction or an exemption of stormwater sampling. If Regional Board staff concur that sampling at the marina is infeasible, the Regional Board Executive Officer (EO) may grant an exemption of stormwater sampling and prescribe an alternative MRP for the marina (i.e., conduct more visual inspections in lieu of sampling). The Regional Board EO will notify the marina operator in writing by issuing a certification letter approving an alternative MRP and/or an exemption to the sampling and analysis requirements prescribed in the Marina General Permit.

9. Stormwater Sample Collection and Handling Instructions

a. Identify the parameters required for testing and the number of stormwater discharge points that will be sampled. Request the laboratory to provide the appropriate type and number of sample containers, sample container labels, blank chain of custody forms, and sample preservation instructions.

b. Determine how you will ship the samples to the laboratory. The testing laboratory should receive samples within 48 hours of the physical sampling (unless otherwise required by the laboratory). Your options are to either deliver the samples to the laboratory, arrange to have the laboratory pick them up, or overnight ship them to the laboratory.

c. Use only the sample containers provided by the laboratory to collect and store samples. Use of any other type of containers could contaminate your samples.

d. To prevent sample contamination, do not touch, or put anything into the sample containers before collecting stormwater samples.

e. Do not overfill sample containers. Overfilling can change the analytical results.

f. Tightly screw the cap of each sample container without stripping the threads of the cap.

g. Complete and attach a label to each sample container. The label shall identify the date and time of sample collection, the person taking the sample, and the sample collection location or discharge point.

h. Carefully pack sample containers into an ice chest or refrigerator to prevent breakage and maintain temperature during shipments. Rememeber to place frozer ice packs into shipping container. Samples should be kept as close to 4 °C (39 °F) as possible until arriving at the laboratory. Don not freeze samples.

i. Complete a Chain of Custody form for each set of samples. The Chain of Custody form shall include the Discharger's name, address, and phone number, identification of each sample container and sample collection point, person collecting the samples, the date and time each sample container was filled, and the analysis that is required for each sample container.

j. Upon shipping/delivering the sample containers, obtain both the signatures of the persons relinquishing and receiving the sample containers.

k. Dischargers shall designate and train personnel to collect, maintain, and ship samples in accordance with the above sample protocols and good laboratory practices.

10. Monitoring Methods

a. The facility's MRP shall include a description of the following items:

i. Visual observation locations, visual observation procedures, and visual observation follow-up and tracking procedures.

ii. Sampling locations, and sample collection and handling procedures. This shall include detailed procedures for sample collection, storage, preservation, and shipping to the testing lab to assure that consistent quality control and quality assurance is maintained. The MRP should also include an example of a Chain of Custody form used when handling and shipping samples.

iii. Identification of the analytical methods and corresponding method detection limits used to detect pollutants in stormwater discharges.

b. The marina operator shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994 which is attached to and made part of this Monitoring and Reporting Program and in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater"(American Public Health Association.) All monitoring instruments and equipment (including a Discharger's own field instruments for measuring pH and specific conductance) shall be calibrated and maintained in accordance with manufacturer's specifications to ensure accurate measurements. With the exception of field analysis conducted by Dischargers for pH and specific conductance, all analyses shall be sent to and conducted at a laboratory certified for such analysis by the State Department of Health Services. Dischargers may conduct their own field analysis of pH and specific conductance if the Dischargers have sufficient capability (qualified and trained employees, properly calibrated and maintained field instruments, etc.) to adequately perform the field analysis.

11. Spill Log

Spills of any size should be recorded in a daily log (e.g., clipboard located near the fueling station) and submitted yearly to the Regional Board with the Annual Report.

12. Annual Report

All marina operators shall submit an Annual Report by **November 15** of each year to the Regional Board office. The report shall include a summary of visual observations, sampling and analysis results (including laboratory reports and the Chain of Custody, laboratory results transferred to the Monitoring Form on Page 14), the Annual Comprehensive Facility Compliance Evaluation Report (Evaluation Report) required in Section 10, Pages 13 and 14, of Attachment D of this Marina General Permit, and an explanation of why the marina did not implement any activities or sampling required by the Marina General Permit (if not already included in the Evaluation Report).

When laboratory reports are submitted, analytical results shall specify the method detection limit of each analytical parameter. Analytical results that are less than the method detection limit shall be reported as "less than the method detection limit."

The Annual Report shall be signed and certified in accordance with Sections 9 and 10 of the Standard Provisions (Attachment E of the Marina General Permit).

Marina operators shall prepare and submit their Annual Reports using the Annual Report Form provided by the Regional Board. At any time during the term of this permit, the SWRCB or Regional Board may notify the Discharger to electronically submit Annual Reports.

13. Records

Records of all stormwater monitoring information and copies of all reports (including the Annual Reports) required by this Marina General Permit shall be retained for a period of at least five years. These records shall include:

a. The date, place, and time of site inspections, sampling, visual observations, and/or measurements;

b. The individual(s) who performed the site inspections, sampling, visual observations, and or measurements;

c. Flow measurements or estimates;

d. The date and approximate time of analyses;

e. The individual(s) who performed the analyses;

f. Analytical results, method detection limits, and the analytical techniques or methods used;

g. Quality assurance/quality control records and results;

h. Non-stormwater discharge inspections and visual observations and stormwater discharge visual observation records;

i. Visual observation and sample collection exception records;

j. All calibration and maintenance records of on-site instruments used;

k. If the marina is under an alternative monitoring and/or exemption of stormwater sampling program (see Section 8.c, page 6 of the MRP), a copy of the Regional Board certification letter must be submitted with the Annual Report; and

l. The records of any corrective actions and follow-up activities that resulted from the visual observations.

REQUIREMENTS FOR MAINTENANCE DREDGING PROJECTS

1. Maintenance Dredging Sampling (Refer to Table 3, Page 13 for a Summary of the Monitoring Requirements for Maintenance Dredging Projects.)

a. Pre-project sampling requirements and sampling requirements for projects involving beach replenishment

i. **Water Samples**. To determine background water quality, before dredging, 3 samples collected from the area to be dredged shall be composited into one sample. The composite sample must be representative of the typical undisturbed conditions, and must not be taken during a runoff event. These samples shall be analyzed for the following constituents:

Constituent	Units	Reporting Limit (PQL)
Total Nitrogen	mg/l as N	0.1 mg/l as N
Total Phosphorus	mg/l as P	0.008 mg/l as P
Turbidity	NTU	0.1 NTU

ii. **Substrate samples.** Before starting a complex maintenance dredging project, collect a substrate sample from the same bottom elevation that will be achieved during the dredging project and analyze for the following constituents:

Constituent	Units	Reporting Limit (PQL)
Total Petroleum Hydrocarbons (Gasoline)	mg/kg	0.5 mg/kg
Total Petroleum Hydrocarbons (Diesel)	mg/kg	1 mg/kg

(Substrate monitoring is not required for simple maintenance dredging projects.)

iii. **Samples of Dredged Material and Beach Replenishment Area**. If the project involves using all or a portion of the dredged spoils for beach replenishment, sampling shall be conducted before dredging. The results must be submitted to the Regional Board at the time the dredging application is submitted in order for the Regional Board to consider if the use of the dredged material for beach replenishment is appropriate.

The required sampling is intended to compare the quality of the dredged material with the existing beach sand. To characterize the dredged sand, a minimum of 3 samples shall be collected from the dredged area and composited into one sample. To characterize the existing beach sand, a minimum of 3 samples shall be collected from the beach area proposed for replenishment and composited into one sample. A grain size analyses shall be conducted on each composite sample and the results must indicate the percent of fine material (sediment passing through the no. 200 sieve size). Pending the results of the substrate sampling required in Section 1.a.ii. above, more specific testing for volatile organics may be required.

b. Sampling requirements during dredging activities:

i. During the dredging operation, turbidity measurements shall be taken every 2 hours. If a containment structure is used the turbidity measurements shall be taken from

inside the containment structure and from no more than 5 feet outside of the contained area. If no containment structure is used because a low-impact dredging method is being employed, turbidity shall be measured every 2 hours from a location along approximately the 20-foot radius of the dredging equipment.

ii. Continuous visual inspections shall be made of the containment structures, 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 the containment structures, and/or if petroleum product sheens are detected outside the protective oil barriers, dredging shall cease immediately and action shall be taken to correct the problem.

iii. Daily written records shall be kept of the inspections noting any problems or violations.

c. Prior to the removal of any in-lake containment structure, a composite water sample must be collected from within the contained area. This composite sample shall consist of lake water taken from 3 locations within the contained area. This sample shall be analyzed for turbidity only. Approval from the Regional Board Executive Officer or designated staff must be obtained prior to removing any containment structure. This decision will be based on results of the water sample.

12. Reporting Requirements for Maintenance Dredging

a. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and make part of this Monitoring and Reporting Program.

b. The Discharger shall submit copies of all of the monitoring data collected in accordance with Sections 11.b. and 11.c. within 30 days of completing the dredging project. The Discharger will maintain permit coverage and be required to pay the Annual Fee until a Notice of Termination (Attachment L) and all the required monitoring data has been submitted to the Regional Board.

Ordered by: _____ Date: _____

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: General Provisions for Monitoring and Reporting

TABLE 1
PARAMETER BENCHMARK VALUES OR STORMWATER EFFLUENT LIMITATIONS, TEST METHODS, DETECTION LIMITS, AND REPORTING UNITS

PARAMETER	TEST METHOD	DETECTION LIMIT	REPORTING UNITS	USEPA BENCHMARK VALUE
pH	EPA 9040 and/or Field Test w/ Calibrated Paper or Portable Instr.		pH units	6.0-9.0
TSS (Total Suspended Solids)	EPA 160.2 SM 2540-D	1.0	mg/L	100
Specific Conductance (SC)	EPA 120.1/ SM 2510-B or Field Test w/Portable Meter	1.0	umhos/cm	200
Zinc, Total (H)	EPA 200.8	0.0005	mg/L	0.117
Lead, Total (H)	EPA 200.8	0.0005	mg/L	0.0816
Aluminum, Total (pH 6.5-9.0)	EPA 200.8	0.0005	mg/L	0.75
Iron, Total	EPA 200.8	0.005	mg/L	1.0
PARAMETER	**TEST METHOD**	**DETECTION LIMIT**	**REPORTING UNITS**	**LAKE TAHOE BASIN STORMWATER EFFLUENT LIMIT FOR DISCHARGES TO LAND**
Turbidity	EPA 180.1	0.5	NTU	200
Total Phosphorus	EPA 365.2	0.008	mg/L	1.0
Total Nitrogen (Nitrate + Nitrite and TKN)	See below	See below	mg/L as N	5.0
Nitrate/Nitrite as N (NO_3/NO_2 as N)	EPA 300.0	0.01	mg/L as N	5.0 (includes (NO_3/NO_2 and TKN)
Total Kjeldahl Nitorgen (TKN as N)	EPA 351.2	0.2	mg/L as N	5.0 (includes (NO_3/NO_2 and TKN
Grease and Oil	EPA 413.2 EPA 1664	1.0	mg/L	40.0

Semi-Volatile organics shall be analyzed using EPA 8270C; reported in micrograms per liter (ug/L) with a 10 ug/L detection limit for most constituents.

SM- Standard Methods for the Examination of Water and Wastewater
EPA- EPA Test Method (H)- Hardness dependent

TABLE 2

SUMMARY OF MONITORING ACTIVITIES REQUIRED BY THE MARINA GENERAL PERMIT FOR LONG-TERM OPERATION AND MAINTENANCE OF THE FACILITY

Activity	Permit Section, Page	Location	Frequency
Monthly Visual Inspections conducted only during the marina's operating season	Attach. D (SWPPP) Section 8.a.viii., Page 12	The entire facility	Prior to anticipated storm events during daylight hours
Annual Comprehensive Site Compliance Evaluation	Attach. D (SWPPP) Section 10, Page 14	Inspection of the entire facility and the BMPs, and a review of the facility records including sample results	One time during each reporting period
Non-Stormwater Visual Observation	MRP, Section 4, Pages 2 and 3	The entire facility	Monthly during facility's operating season, during daylight hours, on days with no stormwater discharges
Stormwater Discharge Visual Inspections	MRP, Section 5, Page 3	The entire facility	Four storm events during the facility's operating season, during daylight hours
Visually Observe Stormwater Discharge Locations	MRP, Section 7, Pages 4 and 5	The entire facility	Prior to anticipated storm events during daylight hours
Stormwater Sample Collection and Analysis for Indicator Parameters	MRP, Section 6, Pages 3-4	Sampling Locations designated in the Facility's SWPPP and MRP	Two storm events during daylight hours during the facility's operating season, sample collection ideally from the first hour of discharge
Stormwater Sample Collection and Analysis for Facility-specific Parameters	MRP, Section 6, Pages 3-4	Sampling Locations designated in the Facility's SWPPP and MRP	Two storm events during daylight hours during the facility's operating season, sample collection ideally from the first hour of discharge
Spill Log	MRP, Section 11, Page 7	Areas at the marina	Daily throughout the marina's operating season

TABLE 3

SUMMARY OF MONITORING ACTIVITIES REQUIRED FOR MAINTENANCE DREDGING

Activity	Permit Section, Page	Number of Samples	Location	Frequency
Pre-Project Water Sampling	MRP, Section 1., a., i., Page 9	One composite sample comprised of 3 separate samples	A representative sample collected from the area to be dredged	Once prior to dredging
Pre-Project Substrate Sampling	MRP, Section 1., a., ii., Page 9	One composite sample comprised of 3 separate samples	A representative sample collected from the same bottom elevation that will be achieved during the dredging project	Once prior to dredging
Sampling if Dredging Project Involves Beach Replenishment	MRP, Section 1.,,a., iii., Page 9	Two composite samples each comprised of 3 separate samples	One composite sample representing the dredged material and one composite sample representing the beach area proposed for replenishment	Once prior to dredging
Sampling During the Dredging	MRP, Section 1.,b.,i., Page 9	Project with Containment Structure: two samples each from a different location Project without containment structure: one sample	Project with Containment Structure: one sample from inside the containment area and one sample from no more than 5 feet of outside the containment structure Project without containment structure: one sample from a location along approximately the 20-foot radius of the dredging equipment	Every 2 hours during active dredging
Visual Inspections During the Dredging	MRP, Section 1.,b., ii., Page 10	Observe project site continuously	Observe the entire project site including the containment structures, spoils storage area, and the dredging equipment	Continuously during the Dredging Operation
Post-Project Dredging Prior to removing the containment structure	MRP, Section 1., c., Page 10	One composite sample comprised of 3 separate samples	Collected from the containment area	Once prior to removing the containment structure

MONITORING FORM

(This Form should be submitted yearly with each Annual Report. Results from stormwater sampling should be transferred to this Form to determine if the concentrations of pollutants measured in stormwater collected from the site exceed the USEPA Benchmarks or Stormwater Effluent Limits.)

Sample Date	Stormwater Sample Results	USEPA Benchmark Value	Stormwater Effluent Limit for Surface Water	Stormwater Effluent Limit for Land	Does Result Exceed Benchmark or Effluent Limit (yes or no)
	Total N		**0.5 mg/L**	**5 mg/L**	
	Total P		**0.1 mg/L**	**1 mg/L**	
	Turbidity		**20 NTU**	**200 NTU**	
	Oil & Grease		**2 mg/L**	**40 mg/L**	
	pH			**6-9 pH units**	
	TSS	**100 mg/L**			
	Specific Conductance	**200 umhos/cm**			
	Aluminum (Al), Total	**0.75 mg/L**			
	Iron (Fe), Total	**1 mg/L**			
	Lead (Pb), Total	**0.0816 mg/L**			
	Zinc (Zn), Total	**0.117 mg/L**			