CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

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ORDER NO. R6T-2011-0019
NPDES NO. CAG616002

GENERAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY IN THE LAKE TAHOE HYDROLOGIC UNIT, COUNTIES OF ALPINE, EL DORADO, AND PLACER

The following Dischargers are subject to waste discharge requirements as set forth in this Order (as authorized by the Notice of Applicability):

Table 1. Discharger Information

Dischargers	Individuals, public agencies, private businesses, and other legal entities performing construction activities that results in land surface disturbances of greater than one acre, or less than one acre if the construction activity is part of a larger common plan of development in the Lake Tahoe Hydrologic Unit, or as otherwise defined in section II.D of this General Permit.

Table 2. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**April 14, 2011**
This Order shall become effective on:	**April 14, 2011**
This NPDES Permit shall expire on:	**April 13, 2016**

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 14, 2011**.

Harold J. Singer

HAROLD J. SINGER, EXECUTIVE OFFICER

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LIST OF ATTACHMENTS

I. FINDINGS

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

A. Background. In 1972, 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. On November 16, 1990, the United States Environmental Protection Agency (USEPA) published final regulations that established storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999 lowered the permitting threshold from five acres to one acre.

While 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 Permit at this time that will apply to most storm water discharges associated with construction activity in the Lake Tahoe Hydrologic Unit.

On March 10, 2005, the Lahontan Water Board reissued the *General Permit for Discharges of Storm Water Runoff Associated with Construction Activity Involving Land Disturbance in the Lake Tahoe Hydrologic Unit* (Board Order No. R6T-2005-0007). That NPDES Permit must be reissued. Dischargers of storm water runoff in the Lake Tahoe Hydrologic Unit to surface waters must obtain authorization under this reissued General Permit for construction-related discharge to waters of the United States. To obtain authorization for continued and new-project discharges to waters of the United States, Dischargers must submit a complete application, as described in section II of this General Permit.

Regulating many storm water discharges under one permit will greatly reduce the administrative burden associated with permitting individual storm water discharges.

B. Discharge Description. This General Permit regulates discharges of pollutants in storm water associated with construction activity (storm water discharges) to waters of the United States within the Lake Tahoe Hydrologic Unit from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. Construction activity includes demolition that disturbs the land, clearing, grading, excavation, and other land disturbance activities. Waters as used in this General Permit are defined in section 122.2(a) of Title 40 of the Code of Federal Regulations (CFR), and include, but are not limited to, wetlands rivers and streams, either perennial or ephemeral, which flow in natural or artificial watercourses, lakes and

impoundments of waters otherwise defined as Waters of the US within the State of California. Discharges of non-storm water to land may be necessary for the completion of certain construction projects. Such discharges include, but are not limited to, irrigating vegetation for erosion control measures, flushing and testing pipes, dewatering construction excavations, flushing fire hydrants, and watering to control dust. These and other non-storm water discharges are also conditionally covered under this General Permit, provided the discharge is not prohibited and/or is granted a prohibition exemption.

C. Legal Authorities. This Order is issued pursuant to section 402 of the CWA and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges of storm water from construction sites equal to or in excess of one acre 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).

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

1. Involve the same or substantially similar types of operations;
2. Discharge the same type of waste;
3. Require the same type of effluent limitations or operating conditions;
4. Require similar monitoring; and
5. Are more appropriately regulated under a general permit rather than individual permits.

On September 22, 1989, USEPA granted the State of California, through the State Water Resources Control Board (State Water Board) and the nine regional Water Boards, the authority to issue general NPDES permits pursuant to 40 CFR Parts 122 and 123. This General Permit meets the criteria of 1 through 5 listed above.

D. Background and Rationale for Requirements. The Lahontan Water Board developed the requirements in this General Permit based on readily available information for several similar discharges, the State-wide General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ) and the requirements contained in Order No. R6T-2005-0007. In addition, requirements of this General Permit are consistent with Effluent Limitations Guidelines and New Source Performance Standards for the Construction and Development point source category. The Fact Sheet, which contains background information and rationale for General Permit requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through I are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). This action to adopt a general NPDES permit is exempt from the provisions of Chapter 3 of the California

Environmental Quality Act (CEQA) (Public Resources Code section 21100, et seq.), pursuant to section 13389 of the California Water Code.

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations (40 CFR 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.

G. Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category. On December 1, 2009 the USEPA published final regulations establishing CWA technology-based Effluent Limitations Guidelines and New Source Performance Standards (NSPS) for the Construction and Development point source category (hereinafter, ELGs). 40 CFR Part 450 establishes technology-based effluent limitations based on best practicable technology (BPT), best available technology (BAT), best conventional pollutant control technology (BCT), and NSPS reflecting the best available demonstrated control technology.

1. For BPT and BCT, the ELGs establish requirements for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and outlet requirements.

2. For BAT and NSPS, the USEPA will be issuing as part of its ELGs for Construction and Development a daily maximum turbidity requirement that will be expected by August 2, 2011 for all dischargers disturbing 20 or more acres of land at one time[1]. Dischargers disturbing 10 or more acres of land will be required to meet this effluent limitation by February 2, 2014. In addition, requirements for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and surface outlets are also established.

H. Water Quality-Based Effluent Limitations. Section 301(b) of the CWA and 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.

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

[1] In an October 2010 Notice, the EPA acknowledged an error in calculating a turbidity limit of 280 NTU and issued a stay of the limit (75 Fed. Reg. 68215). This General Permit may be modified to incorporate any new turbidity limits adopted by the USEPA in accordance with 122.63, 122.64, and 124.5 of the CFR.

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 section 122.44(d)(1)(vi). Waste discharge requirements of this General Permit also include effluent limitations for discharges as specified in the Basin Plan and carried forward from the prior General Permit

I. Storm Water Benchmark Performance Levels. This General Permit also contains concentration-based, pollutant-specific benchmark values for pH in effluent. The benchmarks and related monitoring and reporting requirements contained in this General Permit are consistent with the Basin Plan. The purpose of the benchmarks is to provide a measure of whether a facility's BMPs are meeting performance levels protective of water quality and beneficial uses. This General Permit requires Dischargers to take actions to evaluate excursions from objectives, improve BMP performance if needed when benchmarks are exceeded, and to conduct monitoring and documentation of such actions.

J. Compliance with Effluent Limitations. For purposes of this General Permit, effluent discharges off project boundaries constitute a discharge to surface waters or tributaries to surface waters. This finding is made due to the high degree of surface water connectivity in the Lake Tahoe watershed. Therefore, compliance with effluent limitations is required at specified runoff control points where effluent is discharged off project boundaries or to surface waters, including municipal separate storm sewer systems. Effluent limits for the discharge to surface waters or municipal separate storm sewer systems (MS4) may not apply if the discharger can document that effluent leaving the project boundaries does not reach surface waters or MS4s.

K. Water Quality Control Plans. The Lahontan Water Board adopted a *Water Quality Control Plan for the Lahontan Region* (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 surface waters within the Lake Tahoe Hydrologic Unit include municipal and domestic supply (MUN); agricultural supply (AGR); groundwater recharge (GWR); freshwater replenishment (FRSH); water contact recreation (REC-1); non-contact water recreation (REC-2); cold freshwater habitat (COLD); cold spawning, reproduction, and development (SPWN); commercial and sport fishing (COMM); wildlife habitat (WILD); water quality enhancement (WQE); and flood peak attenuation/flood water storage (FLD). Waters at some locations may also be designated for navigation (NAV); preservation of biological habitats of special significance (BIOL); rare, threatened, or endangered species (RARE); and migration of aquatic organisms (MIGR). Table 5.1-1 in the

Basin Plan may be consulted for the beneficial use designations for any specific surface water body.

In addition, the Basin Plan implements State Water Resources Control Board (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. Requirements of this General Permit implement the Basin Plan.

L. 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.

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on turbidity, pH, nitrogen (total), phosphorus (total), iron (total), and grease and oil. In addition, the provisions of this General Permit require the implementation of Best Available Technologies/Best Control Technologies (BAT/BCT) and Best Management Practices (BMPs) to control and abate the discharge of pollutants in storm water discharges, and achieve the numerical and narrative standards of this General Permit and those contained in the Basin Plan. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

N. Antidegradation Policy. 40 CFR 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. Lake Tahoe is an Outstanding National Resource Water under the federal policy and afforded the highest protections, such that no permanent or long-term reduction in water quality is allowed. 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. Discharges in compliance with this General Permit will not result water quality less than that prescribed in policies and standards, and are therefore consistent with those policies and standards.

O. Anti-Backsliding Requirements. Sections 402(0)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 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 General Permit are at least as stringent as the effluent limitations in General Permit No. R6T-2005-0007. Therefore, this General Permit is in compliance with the anti-backsliding provisions of 40 CFR 122.44.

P. Endangered Species Act. This General Permit 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 General Permit 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.

Q. Monitoring and Reporting. 40 CFR 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 establishes monitoring and reporting requirements to implement federal and State requirements and is provided in Attachment C.

R. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 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 122.42. The Lahontan Water Board has also included in this General Permit special provisions applicable to authorized Dischargers. A rationale for the special provisions contained in this General Permit is provided in the attached Fact Sheet.

S. 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. Details of notification are provided in the Fact Sheet of this General Permit.

T. 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 General Permit.

IT IS HEREBY ORDERED that all Dischargers indicating their intention to be regulated under the provisions of this General Permit, and all heirs, successors, or assigns, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, shall comply with the following:

II. CONDITIONS FOR PERMIT COVERAGE AND NOTIFICATION REQUIREMENTS

A. Legally Responsible Person

To obtain authorization for discharges under this General Permit issued by the Lahontan Water Board, the project must meet the eligibility requirements specified in section II.D of this General Permit, and the legally responsible person (LRP) or LRPs Approved Signatory (see definition in Attachment B – Glossary) must certify and file Permit Registration Documents (PRDs). Applicants must provide PRDs, an appropriate filing fee, and any additional information, as specified in section II.D.4 as application for issuance of NPDES permit requirements. PRDs must be submitted electronically through the State Water Resources Control Board's (State Water Board's) Storm Water Multi-Application and Report Tracking System (SMARTS) at: https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp.

B. Permit Effective Date

This General Permit is effective on April 14, 2011.

1. **Dischargers Obtaining Coverage On or After April 14, 2011**: All dischargers requiring coverage under this General Permit on or after April 14, 2011, shall file the required PRDs and filing fee, and receive prior to commencing land disturbing activities a written Notice of Applicability (NOA) from the Lahontan Water Board indicating the date that the permit coverage begins under the General Permit and the Waste Discharger Identification (WDID) code issued for the project.

2. **Dischargers Previously Covered Under General Permit R6T-2005-0007:** Previously covered dischargers subject to General Permit No. R6T-2005-0007 must comply with General Permit No. R6T-2005-0007 until the discharger re-enrolls and receives coverage under this General Permit, a notice of termination for the project is filed and processed, or December 1, 2011, whichever occurs first. On and after December, 2011, all coverage under General Permit No. R6T-2005-0007 is terminated. Previously enrolled dischargers failing to file PRDs or other information required to complete an application to renew coverage under this General Permit will lose permit coverage on December 1, 2011, and may be subject to enforcement remedies and liability for construction-related discharges without an NPDES permit.

C. General Permit Coverage

1. The Discharger shall be subject to the requirements of and covered by this General Permit only after a WDID number has been issued by Lahontan Water Board staff. In order to demonstrate compliance with coverage requirements for this General Permit, the Discharger must be able to present documentation of a valid WDID upon request.

2. All Dischargers must implement the Storm Water Pollution Prevention Plan (SWPPP) and the Monitoring and Reporting Program, including their Construction Site Monitoring and Reporting Plan (CSMRP) prior to commencement of construction.

3. This 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.

4. This General Permit does not authorize the discharges of fill or dredged material regulated by the US Army Corps of Engineers under section 404 of the CWA and does not constitute water quality certification under section 401 of the CWA. Enrollment under this General Permit may be required for construction activities involving one or more acres of wetland disturbance in the Lake Tahoe Hydrologic Unit.

5. This General Permit does not authorize land disturbing activities in flood plains or stream environment zones (SEZs) unless an exemption to applicable waste discharge prohibitions is granted in writing.

6. Lahontan Water Board staff is authorized to issue a single WDID to a Discharger proposing multiple discharges at multiple locations within the Lake Tahoe Hydrologic Unit, provided that the nature of the discharges and the locations are reported and included in the application information provided with the PRDs for this General Permit.

D. Eligibility Criteria

1. Discharges covered by this General Permit are limited to storm water discharges to surface waters and to land, and authorized non-storm water discharges to land that are associated with construction activities in the Lake Tahoe Hydrologic Unit (Department of Water Resources Hydrologic Unit No. 634.00) as described in any one of the categories listed below:

   a. Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale.

b. Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale that disturbs one or more acres.

c. Construction activity that results in land disturbance of equal to or greater than one acre related to residential, commercial, or industrial development on lands currently used for agriculture or silviculture including, but not limited to, the construction of roads and buildings related to agriculture or silviculture that are considered industrial pursuant to USEPA regulations, such as dairy barns or food processing facilities.

d. Construction activity that results in land disturbance of equal to or greater than one acre associated with linear underground/overhead utility projects including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities), underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

e. Construction activity that results in land disturbance of equal to or greater than one acre associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.[2]

2. Activities specifically not required or eligible to be covered under this General Permit include:

a. Disturbance to land associated with municipal facilities under an approved NPDES Storm Water Management Program for routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

b. Disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation.

c. Discharges of storm water from areas on tribal lands; construction on tribal lands is regulated by a separate federal permit.

d. Construction activity that disturbs less than one acre of land surface, and that is not part of a larger common plan of development .

[2] Pursuant to the Ninth Circuit Court of Appeals' decision in NRDC v. EPA (9th Cir. 2008) 526 F.3d 591, and subsequent denial of the USEPA's petition for reconsideration in November 2008, oil and gas construction activities discharging storm water contaminated only with sediment are no longer exempt from the NPDES program.

e. Construction activity covered by an individual NPDES Permit for storm water discharges.

f. Discharges of storm water identified in section 402(l)(2) of the CWA, 33 USC section 1342(l)(2).

3. Upon receipt of the appropriate PRDs, Lahontan Water Board staff will determine if such a discharge satisfies all of the following conditions:

a. The discharge will be generated from construction activity that does not include any other waste discharge activities, except for those described for authorized non-storm water discharges in section III of this General Permit.

b. The project does not include permanent disturbance to lands classified as SEZs as defined in the Basin plan, unless the Lahontan Water Board grants an exemption explicitly in writing.

c. The amount of proposed coverage is equal to or less than that allowed by the Basin Plan.

d. The project incorporates appropriate BMPs and low-impact development (LID) techniques, as feasible, to infiltrate and/or treat storm water runoff from existing and proposed impervious surfaces on the site as required in this General Permit.

e. The project plans include a SWPPP that proposes specific temporary and permanent measures to prevent the discharge of pollutants from the site.

f. The project plans include projected dates for:

i. Completion of construction;

ii. Completion of storm water infiltration and/or treatment facilities; and

iii. Completion of any necessary restabilization and revegetation.

4. Dischargers are eligible for coverage under this General Permit provided that the Discharger submits PRDs and the proper fee to the State Water Board before starting construction activities. Dischargers previously covered under Permit R6T-2005-0007 must submit their PRDs and receive approval before continuing construction activities after December 1, 2011. PRDs shall include the Notice of Intent (NOI), site maps, and SWPPP. If an Active Treatment System (ATS) is proposed to be used, information required in Attachment E must also be submitted as part of the PRDs. An ATS is distinct from other BMPs in that they include the use of chemical coagulation, chemical flocculation, or electro-coagulation to aid in the reduction of turbidity. For proposed construction activity on easements or on nearby property by agreement or permission, the entity

responsible for the construction activity must submit the PRDs and filing fee, and shall be responsible for development of the SWPPP. The NOI must be signed in accordance with the signatory requirements of the Standard Provisions (Attachment D).

The filing fee shall be submitted to:

State Water Resources Control Board
P.O. Box 1977
Sacramento, CA 95812

Or hand delivered to:

State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

5. Construction activities that involve alteration of a lake bed or stream channel may require prior written agreement with the California Department of Fish and Game. A copy of the written agreement, if any, or agreement waiver must be submitted with the NOI.

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

7. No discharge under this General Permit is authorized until a written WDID is issued from the Lahontan Water Board with the Notice of Applicability.

8. 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.

E. Termination of Coverage

1. When an individual NPDES permit is issued to a Discharger for those types of discharges that otherwise would be subject to this General Permit, the applicability of this General Permit to the Discharger is automatically terminated on the effective date of the individual permit.

2. When construction is complete and the lands have been stabilized from erosion, the discharger shall electronically file a Notice of Termination (NOT), a final site map, and photos through the State Water Board's SMARTS as a request to terminate permit coverage. The discharger shall certify through the filing that all General Permit requirements have been met including final stabilization conditions. The Discharger is required to pay the annual fee (as specified in the

annual billing received from the State Water Board) until the permit coverage is officially terminated in writing by the Lahontan Water Board. If the project lands are transferred to new ownership before construction is complete, the owner subject to this General Permit must temporarily stabilize the site, and electronically file an NOT, current site map, and photos through the SMARTS. The new owner must also apply for coverage under this General Permit as described above and may be liable construction related discharges without an NPDES permit for any period when the project is not covered under this General Permit.

3. Prior to the termination of coverage under this General Permit, the following conditions must be met:

a. The construction project is complete and there is no potential for construction related storm water pollution or pollutant discharges.

b. All construction materials and waste have been removed from the project site and disposed of properly.

c. All elements of the SWPPP have been completed.

d. Permanent BMPs have been installed and all disturbed soil areas are stabilized to prevent and control erosion.

e. For stabilization measures that will mature over time (e.g., cut and fill slopes or other mass graded areas that are mulched and seeded), the discharger shall demonstrate that the site will not pose any additional sediment discharge risk than it did prior to the commencement of construction. This condition shall be demonstrated by:

i. Modeling results using the Revised Universal Soil Loss Equation (RUSLE) or RUSLE2 (detailed information may be found at the USDA website http://www.ars.usda.gov/Research/docs.htm?docid=5971), including computational proof or

ii. Site-specific evaluation of stability, with consideration of parameters such as percent total cover, percent vegetative cover, vegetation type, soil nutrient and organic matter content, and soil infiltration rate.

For these areas, the discharger shall also certify that a plan is in place to monitor and maintain such measures until they are self-sustaining.

f. Information required in the Monitoring and Reporting Program has been submitted.

g. Lahontan Water Board staff has inspected the site, if necessary.

4. If revocation of coverage under the General Permit is denied**,** Lahontan Water Board staff will provide written notification with the reasons for denial.

III. DISCHARGE PROHIBITIONS

Non-storm water discharges to surface waters are prohibited unless granted an exemption in accordance with requirements in the Basin Plan for eligible projects (restoration projects and those listed in Attachment F) and must meet the numeric effluent limitations in section IV of this General Permit unless granted an exemption in accordance with Basin Plan policy.

A. Unless otherwise authorized by a separate NPDES permit, discharges of material other than storm water to a municipal separate storm sewer system or waters of the United States are prohibited.

B. Discharges of non-storm water to land or land-based treatment systems may be necessary for certain construction projects. Such discharges include, but are not limited to, irrigation of vegetation erosion control measures, pipe flushing and testing, and construction dewatering. These discharges to land are authorized under the following conditions:

1. The discharge does not violate any other provision of this General Permit.

2. The discharge is not prohibited by the Basin Plan or does not require a prohibition exemption from the Lahontan Water Board for prohibitions contained in the Basin Plan.

3. The Discharger has included and implemented specific BMPs required by this General Permit to prevent or reduce the contact of the non-storm water discharge with construction materials or equipment.

4. The discharge does not contain toxic constituents in toxic amounts.

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

D. At no time shall 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 or surface water drainage course.

E. The discharge or threatened discharge, attributable to human activities, of solid or liquid waste materials, including soil, silt, clay, sand and other organic 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.

F. The discharge of threatened discharge, attributable to new development in SEZs, of solid or liquid waste, including soil, silt, sand, clay, rock, metal, plastic, or other organic mineral or earthen materials to SEZs in the Lake Tahoe Basin is prohibited.

1. Section 5.2 of the Basin Plan contains prohibitions against the discharge of non-storm water wastes to surface waters, including SEZs and 100-year floodplains in Lake Tahoe Hydrologic Unit, which are described in Attachment F of this General Permit. The prohibitions in Attachment F apply to discharges from construction activity. (Any discharge proposed where a discharge prohibition may apply must be evaluated on an individual basis prior to issuing General Permit coverage 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. More detailed information on exemption criteria and processing is presented in Attachment F).

IV. EFFLUENT LIMITATIONS

Storm water runoff generated from land disturbing activities should be infiltrated to the extent possible. Runoff that is allowed to discharge off the project boundaries must meet the following effluent limitations.

A. All storm water runoff generated within the project area which is discharged to surface waters or municipal separate storm sewer systems must not contain constituents in excess of the following numeric effluent limitations (NELs):

Table 3. Storm Water Effluent Limitations

Parameter	Units	Maximum Daily Effluent Limitations For Discharge
Total Nitrogen (as N)	mg/L	0.5
Total Phosphorus (as P)	mg/L	0.1
Total Iron	mg/L	0.5
Turbidity	NTU	20*
Grease and Oil	mg/L	2
Note* - For ATS use, 10 NTU as daily average and 20 NTU for any single sample.		

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

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

2. Coliform organisms attributable to human wastes.

C. For protection of receiving waters the pH of effluent samples should not fall outside of the range of 6.0 to 9.0. This range is set as a numeric benchmark level. If the pH of effluent is outside of the benchmark, the discharger must investigate the cause of the excursion and implement appropriate corrective measures. If the pH levels are determined to be from natural causes, the discharger must provide data (e.g., from run-on) to demonstrate this condition.

V. 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. Effluent from construction sites must not cause or contribute to the violation of the objectives. The discharge of waste to surface waters must comply with the following limitations:

1. The discharge shall 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 Federal Water Pollution Control Act and regulations adopted thereunder. Discharges shall not cause the receiving water quality objectives listed in Attachment G to be exceeded for the specified surface waters and tributaries thereto. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal CWA or amendments thereto, the Lahontan Water Board may revise and modify this General Permit in accordance with such more stringent standards.

2. The discharge of storm water from within the project area to surface waters or municipal separate storm sewer systems must not cause or contribute to a violation of the following water quality objectives applicable to receiving waters for the discharge.

   a. **Algal Growth Potential.** For Lake Tahoe, the mean algal growth potential at any point in the Lake shall 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.** Ammonia concentrations shall 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 shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20 MPN/100 mL, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40 MPN/100 mL.

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

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

f. **Chemical Constituents.** Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified by the more restrictive of the California Code of Regulations (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 shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values shall be based on daily measurements taken within a 6-month period.

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

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

j. **Conductive Electrical.** In Lake Tahoe, the mean annual electrical conductivity shall not exceed 95 µmhos/cm at 50 ℃ at any location in the Lake.

k. **Dissolved Oxygen.** The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the

minimum dissolved oxygen concentration be less than 80 percent of saturation. The minimum dissolved oxygen concentration shall 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 shall 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, the concentrations of floating material shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.

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

n. Nondegradation of Aquatic Communities and Populations. All waters shall 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 shall 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, piscicides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code 12753).

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

Waters designated as MUN shall 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. In Lake Tahoe, the pH shall not be depressed below 7.0 nor raised above

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

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

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

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

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

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

w. Temperature. The natural receiving water temperature of all waters shall 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 WARM, water temperature shall not be altered by more than 5 degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered.

x. Toxicity. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. 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, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in *Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1998)*.

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

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

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D, which are made part of this General Permit.

B. Reopener Provisions

1. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Federal Water Pollution Control Act or amendments thereto, the Lahontan Water Board may revise and modify this General Permit in accordance with such more stringent standards.

2. The Lahontan Water Board may reopen this General Permit to establish new conditions or effluent limitations should monitoring data or other new information indicate that a constituent is discharged at a level that will do any of the following:

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

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

3. 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 or Basin Plan amendment.

4. The Lahontan Water Board may reopen this General Permit to reflect any changes by amendments to the Implementation Chapter of the Basin Plan.

5. The Lahontan Water Board may reopen this permit to include the maximum daily turbidity limit being developed by the USEPA as part of the technology-based ELGs and NSPSs developed for the Construction and Development point source category.

B. Provisions for Administrative Continuance

This General Permit continues in force and effect until a new General Permit is issued or the Lahontan Water Board rescinds this General Permit.

C. Additional Provisions

1. The Discharger shall comply with the following additional provisions:

a. Failure to comply with this permit may constitute a violation of the CWC and or the CWA, and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

b. The CWC 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.

c. Provisions of the permit are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

d. Pursuant to CWC 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, shall create a vested right to continue the discharge. All discharges of waste into waters of the state are privileges, not rights.

e. Pursuant to CWC section 13260(c), any change in the ownership and/or operation of property subject to the NPDES permit shall be reported to the Lahontan Water Board. Notification of applicable NPDES Permit requirements shall be furnished in writing to the new owners and/or

operators, and a copy of such notification shall be sent to the Lahontan Water Board.

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

g. Pursuant to CWC section 13267 and/or section 13383, the Discharger shall comply with the CSMRP, and future revisions thereto, in Attachment C of this General Permit, and any additional monitoring requirements as specified by the Lahontan Water Board Executive Officer.

2. Unless specifically granted in writing by the Lahontan Water Board, authorization pursuant to this General Permit does not constitute an exemption to applicable discharge prohibitions prescribed in the Basin Plan.

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. The Discharger shall at all times fully comply with engineering plans, specifications, and technical reports submitted with the PRDs.

5. The Discharger shall at all times fully comply with the SWPPP and Rain Event Action Plan (REAP).

6. In accordance with section 13260 of the California Water Code, the Discharger shall file a report with the Lahontan Water Board of any material change or proposed change in the character, location, or volume of the discharge. Any proposed material change in the operation shall be reported to the Executive Officer at least 30 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant new soil disturbances, all proposed expansion of development, and increase in impervious surface coverage, or any change in drainage characteristics at the project site.

7. Board Order No. R6T-2005-0007 is rescinded on December 1, 2011, except for enforcement purposes.

VII. TRAINING QUALIFICATIONS AND CERTIFICATIONS REQUIREMENTS

A. General

The discharger shall ensure that persons responsible for developing and implementing storm water pollution controls specified this General Permit shall be appropriately trained and certified in accordance with the requirements below. Additionally, project SWPPP requirements shall be communicated to all contractor and subcontractor personnel conducting activities that could affect storm water runoff quality. Training may be both formal and informal, as appropriate, and shall at a minimum be provided during pre-construction meetings and regular tailgate meetings conducted during the course of the project.

The discharger shall provide documentation of required qualifications and training in the Annual Report for persons responsible for implementing the requirements of this General Permit.

B. SWPPP Certification Requirements

1. **Qualified SWPPP Developer:** The discharger shall ensure that SWPPPs are written, amended and certified by a Qualified SWPPP Developer (QSD). A QSD shall have one of the following registrations or certifications, and appropriate experience, as required for:

   a. A California registered professional civil engineer

   b. A California registered professional geologist or engineering geologist**;**

   c. A California registered landscape architect;

   d. A professional hydrologist registered through the American Institue of Hydrology;

   e. A Certified Professional in Erosion and Sediment Control (CPESC) ™ registered through Enviro Cert International, Inc;

   f. A Certified Professional in Storm Water Quality (CPSWQ) ™ registered through Enviro Cert International, Inc.; or

   g. A professional in erosion and sediment control registered through the National Institute for Certification in Engineering Technologies (NICET).

2. **Required QSD Training:** Effective on **April 13, 2012**, a QSD shall have attended a State Water Board-sponsored or -approved QSD training course and pass a required examination covering the course material.

3. **Qualified SWPPP Practitioner:** The Discharger shall ensure that all BMPs required by this General Permit are implemented by a Qualified SWPPP Practitioner (QSP). A QSP is a person responsible for non-storm water and storm water visual observations, sampling and analysis. Effective **April 13, 2012**, a QSP shall be either a QSD or have one of the following certifications:

   a. A certified erosion, sediment and storm water inspector registered through Enviro Cert International, Inc.; or

   b. A certified inspector of sediment and erosion control registered through Certified Inspector of Sediment and Erosion Control, Inc.

4. **Required QSP Training:** Effective **April 13, 2012**, a QSP shall have attended a State Water Board-sponsored or -approved QSP training course and pass a required examination covering the course material..

VIII. BEST MANAGEMENT PRACTICES (BMPS)

Dischargers shall minimize or prevent pollutants in storm water discharges and authorized non-storm water discharges through the use of controls, structures, and management practices that achieve BAT for toxic and non-conventional pollutants and BCT for conventional pollutants. Storm water controls and control locations must be described in the SWPPP for the project site. At a minimum, the following types of storm water control measure BMPs must be described in the SWPPP and implemented for the project.

A. Site Management

Dischargers shall implement appropriate site management measures to control pollutants in site runoff for construction materials that are potential threats to water quality if discharged. The control measures shall include, but are not limited to, the following items.

1. Conduct an inventory of the products used and/or expected to be used and the end products that are produced and/or expected to be produced. This does not include materials and equipment that are designed to be outdoors and exposed to environmental conditions (i.e., poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

2. Identify potential pollutant sources and areas of the site where BMPs are necessary to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. This potential pollutant source list shall 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 shall:

a. 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.

b. Consider the degree to which pollutants associated with those materials may be exposed to and mobilized by contact with storm water.

c. Consider the direct and indirect pathways that pollutants may be exposed to storm water or authorized non-storm water discharges. This shall include an assessment of past spills or leaks, non-storm water discharges, and discharges from adjoining areas.

3. Ensure retention of sampling, visual observation, and inspection records.

4. Store chemicals in watertight containers with appropriate secondary containment to prevent any spillage or leakage, and protect from precipitation and surface run-on.

5. Separate snow storage and disposal areas from surface waters to prevent direct discharge and avoid surface runoff. Treatment and retention capacity of storm water basins and similar facilities on the land surface must not be compromised by storage of accumulated snow, other than by direct precipitation. Treatment facilities shall be designed to accommodate snowmelt runoff from designated snow storage and disposal areas.

6. Protect permanent infiltration facilities from receiving turbid discharges or other polluted storm water runoff. If permanent infiltration facilities are used as temporary BMPs, the capacity and functionality of the facilities shall be maintained and/or renovated as needed to ensure pre-project capacity and function prior to requesting General Permit termination.

7. Prevent the discharge of pollutants from sanitation facilities (e.g., portable toilets) to the storm water drainage system or receiving water. Sanitation facilities shall be cleaned/replaced as necessary, and inspected regularly for leaks and spills.

8. Cover waste disposal containers at the end of every business day and during a rain event.

9. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

10. Protect all loose piles of soil, silt, clay, sand, debris, or other earthen materials such that sediment is prevented from leaving the site.

11. Prevent ground compaction and disturbance activities in unpaved areas not subject to construction. All non-construction areas shall be protected be identified and protected by fencing or other means to limit access. These control measures shall be inspected periodically and shall be repaired when necessary to maintain effectiveness.

12. Develop a spill response plan prior to commencement of construction activities. The plan shall include:

a. Descriptions of equipment and materials required to be on site for cleanup of spills/leaks, and
b. Descriptions of appropriate spill response procedures, the responsible personnel, and the training records of such personnel.

13. 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.

14. Prevent the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters.

15. Conduct equipment and vehicle fueling, maintenance and repair activities only in designated areas with appropriate BMPs.

16. By October 15 of each year, all disturbed areas shall be permanently stabilized or temporarily winterized. Winterized means to implement appropriate BMPs to prevent and minimize erosion and soil movement from the site in storm water in a manner that will remain effective until May 1 of the following year.

B. Sediment and Erosion/Stabilization Controls

Dischargers shall implement a combination of sediment and erosion controls to prevent or minimize sediment discharges from the site. Control measures shall include, but are not limited to, the following items.

1. Install temporary sediment controls for the down gradient perimeter of the project site, and/or any location where storm water may discharge from the project site, prior to the initiation of any construction related activities.

2. Install temporary gravel bag dikes, fiber rolls, filter fabric fence, or other equivalent measures as necessary to control erosion and runoff.

3. Install temporary check dams such as gravel bag dikes in concentrated flow lines to slow and detain water flows and retain sediment.

4. Protect drain inlets and outfall structures with appropriate controls to minimize and control erosion and sediment discharge.

5. Prevent off-site tracking of earthen materials from the construction site onto adjacent roads and public ways. The Discharger shall control access points, install stabilized entrances/exits for vehicle and equipment traffic operating on the site, and implement sweeping as necessary where tracking prevention is not complete.

6. Provide and maintain natural buffers around surface waters and direct storm water runoff to vegetated areas, unless infeasible.

7. If used, sediment basins must be designed according to the methods provided in California Storm Water Quality Association's (CASQA's) Construction BMP Guidance Handbook or equivalent (http://www.cabmphandbooks.com/).

8. Control storm water volume and velocity within the site to minimize soil erosion and offsite discharge.

9. Direct all run-on from offsite, to the maximum extent possible, away from all disturbed areas.

10. Surface flows from the project site shall be controlled to prevent downstream erosion at any point.

11. Control the amount of soil exposed to erosion at any particular time during construction activity.

12. Control soil compaction and preserve topsoil as feasible.

13. Implement an effective combination of temporary sediment and erosion controls on disturbed soil areas (DSAs) prior to the onset of precipitation events.

14. Permanently stabilize from erosion or vegetate all finished graded areas. Vegetated and revegetated areas shall be identified with the specifications for successful vegetation growth and soil cover and maintained as needed to ensure adequate growth and root development until vegetation becomes established. If mulch cover only is used for stabilization from erosion, the Discharger must demonstrate the mulch will provide ongoing effectiveness in preventing soil erosion. The following measures are recommended:

a. Depending on the level of disturbance and site conditions, wood chip mulch, pine needle mulch, rock, or other suitable materials may be applied on disturbed surfaces in lieu of vegetation;

b. Whenever practical seeds collected from the project site area should be added to the seed mix being applied during revegetation; and

c. Whenever practical, natural revegetation and native mulch will be the preferred method of stabilization.

15. Wind erosion shall be controlled to prevent nuisance and to prevent the transport of dust and soil particles into the air, off the project site, into any surface waters, or into any drainage course.

C. Construction Site Dewatering or Diversions

Unless granted an exemption in accordance with the Basin Plan for eligible projects, construction site dewatering waste must not be discharged to surface waters or tributaries thereto, including municipal separate storm sewer systems. Clear water diversions are authorized under this General Permit.

Prior to conducting dewatering or clear water diversion activities, the Discharger must prepare a dewatering/diversion plan as part of the SWPPP. Lahontan Water Board staff may require the Discharger to submit the

dewatering/diversion plan for review prior to commencement of the waste discharges.
The dewatering/diversion plan shall, at a minimum, include the following:

1. The location of the discharge area or outfall and name of receiving water.
2. A description of the discharge or diversion method and plan drawings as necessary.
3. The frequency and estimated volume and rate of discharge.
4. Expected pollutants and concentration in discharge, and control measures to be applied and maintained for pollutant control.
5. Planned effluent and/or receiving water monitoring (visual and other). Parameters to be monitored for discharges to surface waters or municipal storm sewer systems include turbidity, total nitrogen, and total phosphorus. In addition, receiving water monitoring may be appropriate for dewatering discharges to wetlands, SEZs, and floodplains.

D. Inspection, Maintenance and Repair

Dischargers shall conduct BMPs inspections in accordance with the requirements of the Monitoring and Reporting Program described in Attachment C. Dischargers shall ensure that all inspection, maintenance and repair work is performed or supervised by a QSP representing the Discharger. The QSP may delegate any or all of these activities to an employee appropriately trained to do the tasks.

Upon identifying BMPs failures or shortcomings, as directed by the QSP, dischargers shall conduct maintenance or repair of failed or inadequate BMPs within 72 hours of identification, or before the next predicted rain event, whichever is sooner.

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E. Rain Event Action Plan (REAP)

From the dates of May 1 through October 15 of each year, and during periods in which construction activity is conducted under a variance to the land disturbance prohibition of this General Permit, the discharger shall ensure a QSP develops a REAP no later than the calendar day 24 hours prior to any anticipated precipitation event. An anticipated precipitation event is any weather pattern that is forecast to have a 30 percent or greater chance of producing precipitation as rainfall in the project area. During periods when thunderstorm activity is anticipated, the discharger shall monitor weather conditions during the course of the day, and prepare and implement a REAP if the chance of thunderstorms becomes 30 percent or greater, or when visual observations indicate imminent precipitation. The QSP shall obtain, for each day of construction operations, a printed copy of precipitation forecast information from the National Weather Service (NWS) Forecast Office and

keep the copy with the SWPPP monitoring records. Dischargers may access the daily forecasts by entering the zip code of the project's location at the following website: http://www.srh.noaa.gov/forecast.

The REAP shall be available onsite, and a QSP shall begin to implement the REAP prior to the onset of an actual precipitation event. The REAP must be checked and updated daily for storms expected to last over a period of several days.

The REAP shall be developed for all phases of construction until the permit coverage is terminated by the Lahontan Water Board. A REAP template is included in Attachment H.

A REAP, at a minimum, shall include:

1. QSP name and contact number;

2. The date(s) rain is predicted to occur, and predicted chance of rain;

3. A description of all DSAs, material storage areas, stockpiles, vehicle and equipment storage and maintenance areas, and waste management areas. These areas must be cross-referenced to BMP plans or DSA maps by sheet or page number;

4. For each area described above, list specific items to review and actions to perform prior to the rain event;

5. A certification by the QSP that the REAP will be carried out as required by this Permit; and

6. A printout of the NWS weather forecast.

F. Active Treatment Systems (ATS)

Dischargers choosing to implement an ATS on a project site shall comply with all of the requirements in Attachment E of this General Permit.

G. Post-Construction Storm Water Control Requirements

Municipal and Public Roadway Storm Water Treatment Requirements: Municipal jurisdictions and state highway departments must design projects to meet requirements in the respective municipal storm water NPDES permits.

New Development, Redevelopment, and Existing Development Storm Water Treatment Requirements: For new development, re-development, and existing development retrofit projects, dischargers shall implement low-impact development (LID) techniques and infiltrate stormwater runoff from

impervious surfaces and other developed areas where natural percolation of precipitation is impeded following completion of construction. At a minimum, permanent storm water infiltration facilities must be designed and constructed 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, project proponents are encouraged to consider designing post-construction runoff controls in accordance with LID techniques and infiltration facilities to accommodate runoff volumes in excess of the 20 year, 1-hour storm to provide additional storm water treatment. Additional information on LID can be found at the National LID Clearinghouse website: http://www.lid-stormwater.net/clearinghouse/index.html.

Runoff from parking lots, retail and commercial fueling stations, and other similar land uses may contain oil, grease, and other hydrocarbon pollutants. Project proponents designing treatment facilities for these areas must include pre-treatment devices to remove hydrocarbon pollutants prior to infiltration or discharge and contingency plans to prevent spills from polluting groundwater.

Infiltrating runoff volumes generated by the 20 year, 1-hour storm may not be possible in some locations due to shallow depth to seasonal groundwater 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, project proponents must either (1) provide information showing how treatment facilities are expected to meet the numeric effluent limits in Table 5.6-1 of the Basin Plan, or (2) document written acceptance by the local municipality or state highway department to demonstrate that the publicly-owned or municipal storm water treatment facilities treating private property storm water discharges are sufficient to provide adequate treatment to meet any average annual fine sediment and/or nutrient load reduction requirements that may be established by the Lahontan Water Board for the municipality.

IX. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

The Discharger must develop and implement a SWPPP to meet the objectives specified below. This General Permit establishes the following requirements for the development and implementation of a SWPPP. Lahontan Water Board staff may require additional information to be added in a SWPPP depending on the nature or complexity of a project. A suggested outline for developing the SWPPP is provided in Attachment I.

A. OBJECTIVES

A SWPPP shall be developed and implemented for each construction site covered by this permit. The SWPPP shall be designed to comply with

requirements to implement BMPs to achieve compliance with effluent limits and receiving water objectives. The SWPPP shall be developed and amended, when necessary, to meet the following objectives:

1. Identify pollutant sources including sediment sources that may affect the quality of storm water discharges associated with construction activity.

2. Identify non-storm water discharges.

3. Identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized non storm water discharges from the construction site.

4. Identify all effluent discharge outfall locations, sampling and analysis strategy and protocols, and a sampling schedule for discharges from the identified outfalls for the project area.

B. PERMIT REGISTRATION DOCUMENTS (PRDs)

The SWPPP shall include a copy of the Notice of Intent (NOI).

C. SWPPP CERTIFICATION AND TRAINING REQUIREMENTS

1. The SWPPP must be prepared, signed, and certified by a QSD, who meets the requirements as described in section VII.B. of this General Permit. The SWPPP must also identify the QSP, as defined in section VII.B of this Permit.

2. The SWPPP shall include procedures to ensure that all required inspections, maintenance, and repair activities are consistent with the requirements of this General Permit. These procedures shall include identification of specific personnel and the training required to perform inspections, maintenance, and repair (i.e., by a QSP).

D. AVAILABILITY AND PUBLIC RECORDS ACCESS

The SWPPP and any amendments shall be kept on site during construction activity and made available upon request of a representative of the Regional Water Board or any local storm water management agency which receives the storm water discharge.

The SWPPP is considered a report that shall be available to the public under Section 308(b) of the CWA. Upon request by members of the public, the discharger shall make available for review a copy of the SWPPP directly to the requestor.

E. LIST OF CONTRACTORS/SUBCONTRACTORS

The SWPPP shall contain a list of all contractors and subcontractors responsible for implementing the SWPPP. This information shall be added to the SWPPP once the contractors and subcontractors selected to implement the SWPPP are determined

F. REQUIRED CHANGES

1. The Discharger shall amend the SWPPP whenever there is a change in construction, or operations, which may affect the discharge or pollutants to surface waters, ground waters, or a municipal storm drain system. The Lahontan Water Board may require SWPPP amendments be submitted for review and may require modifications.

2. The Discharger shall maintain the SWPPP such that it reflects the actual site conditions for the duration of the project, including keeping DSA maps current as the project progresses. Changes in BMP implementation features or activities shall be documented and included as amendments to the SWPPP. An amendment log shall be maintained in the SWPPP that summarizes all changes to the SWPPP for the duration of the project.

3. Lahontan Water Board staff, or a local agency with the concurrence of the Lahontan Water Board staff, may require the discharger to amend the SWPPP if it is in violation of any condition of this General Permit.

G. PROJECT INFORMATION

The SWPPP shall include the following information:

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

2. Project description;

3. WDID;

4. Site address and driving directions;

5. Emergency contact person and 24-hour phone number.

6. Potential construction site pollutants of concern and sources

H. MAPPING REQUIREMENTS

The SWPPP shall include the following maps:

1. Project Location Map: A topographic map extending one-quarter mile beyond the property boundaries of the construction site, clearly showing: the construction site perimeter and surface water boundaries (including drainage channels, springs, SEZs, 100-year floodplain areas, and wetlands), and the designated discharge locations where the effluent will be controlled and monitored. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.

2. Map(s) of a scale no smaller than 1 inch equals 50 feet (1:600), showing:

   a. The project's construction limit boundaries;

   b. Areas used to store construction materials, equipment, stockpiles, spoils and wastes, including concrete mixing and washout areas;

   c. Vehicle and equipment access, fueling, cleaning, storage and service areas;

   d. Existing and planned paved areas and buildings;

   e. Areas of existing vegetation to be preserved;

   f. Surface water locations, including SEZ boundaries mapped according to the criteria in the Lahontan Basin Plan, section 5.7; 100-year floodplain boundaries; ephemeral and intermittent waterways, springs, and wetlands;

   g. BMPs: Specific locations of storm water structures and controls used during construction as required by section VIII.C.3 of this Permit. Each control structure shall be represented by a standard symbol as indicated in the site map legend;

   h. Existing or pre-construction storm water structures and controls to reduce sediment and other pollutants in storm water discharge;

   i. DSAs: All active DSAs shall be delineated on a map as the project progresses. DSA maps must be kept updated to reflect site conditions. Once an area is stabilized or winterized, it should be hatched out or otherwise notated to indicate it is no longer disturbed;

   j. Drainage patterns and slopes anticipated after major grading activities;

   k. Post-construction storm water structures and controls;

   l. The locations designated for storm water discharge sampling. See Attachment C for additional detail regarding sampling requirements.

3. Information shown on all maps must be legible (i.e., avoid showing too much information on one map). All maps must include a north arrow, scale (either

bar or text format), and a legend with symbols legible in black and white print for all required information. Standard symbols for pollution control structures must be included in the legend of applicable maps.

I. CONSTRUCTION AND BMP IMPLEMENTATION SCHEDULE

The SWPPP shal include:

1. The anticipated start and end dates of construction and well as phases of significant grading activities and work in or near drainages or receiving waters.

2. The schedule for deployment of BMPs. BMPs must be implemented, modified, and maintained appropriately for the site and weather conditions encountered during the project.

J. SITE MANAGEMENT

The SWPPP shall include:

1. A description of the measures, controls and practices to meet the requirements of section VIII of this Permit.

2. The location of site management controls shown on a map as described in the Mapping Requirements of this section, if applicable.

3. Standard specifications (including engineered drawings if applicable) for construction and installation of such controls.

K. SEDIMENT AND EROSION/STABILIZATION CONTROLS

The SWPPP shall include:

1. A description of measures, controls and practices to meet the requirements of section VIII of this General Permit.

2. The location of all sediment and erosion/stabilization controls shown on a map as described the Mapping Requirements of this section.

3. Standard specifications (including engineered drawings if applicable) for construction and installation of such controls.

L. NON-STORM WATER MANAGEMENT

The SWPPP shall include:

1. A description of measures, controls and practices to meet the requirements of section VIII of this General Permit.

2. The location of all non-storm water management controls shown on a map as described in the Mapping Requirements of this section.

3. Standard specifications (including engineered drawings if applicable) for construction and installation of such controls.

M. DEWATERING AND DIVERSIONS

The SWPPP shall include a Dewatering or Diversion Plan to meet the requirements of section VIII of this Permit if the Discharger will utilize surface water diversions to bypass natural stream flows, or pumps or siphons for removal or ground water from excavations (dewatering) during construction. A Diversion and/or Dewatering Plan, as required, shall be developed as an attachment to the SWPPP.

N. ACTIVE TREATMENT SYSTEM (ATS) PLAN

If an ATS is used, the discharger shall develop an ATS Plan in compliance with Attachment E of this Permit. The ATS Plan shall be included in the SWPPP.

O. POST-CONSTRUCTION STORM WATER MANAGEMENT

The SWPPP shall include:

1. A description of post-construction storm water management structures and controls to meet the requirements of section VIII of this General Permit.

2. The location of all post-construction storm water controls shown on a map as described in the Mapping Requirements of this section.

3. Standard specifications (including engineered drawings if applicable) for construction and installation of such controls.

4. The operations and maintenance requirements needed to maintain the effectiveness of storm water controls and the responsible party for ensuring that appropriate maintenance is completed.

P. RAIN EVENT ACTION PLAN (REAP)

The SWPPP shall include records of National Weather Service forecasts and a REAP prior to predicted storm events to meet the requirements of section VIII of this General Permit. A REAP template is included in Attachment H.

Q. CONSTRUCTION SITE MONITORING AND REPORTING PLAN (CSMRP)

The SWPPP shall include a CSMRP to meet the requirements of Attachment C.

R. BMP MAINTENANCE AND REPAIR

The SWPPP shall include procedures for conducting maintenance or repair of failed or inadequate BMPs within 72 hours of identification, or before the next predicted rain event, whichever is sooner.

S. 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 shall be kept at the construction site.

X. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. Compliance with Effluent Limitations

Dischargers must identify all runoff control points where effluent may be discharged off the project boundaries. Monitoring for compliance with effluent limitations is not required if there is no discharge off the project boundaries (e.g., all precipitation is infiltrated on the project site). Compliance with the NELs in section IV of this General Permit is required for any discharge at designated runoff control points that is generated by non-storm water discharges or storm events that do not exceed the rainfall associated with a 20-year, 1-hour storm, which, for purposes of this General Permit, is equal to an intensity of 1 inch of rainfall in a 1-hour period (compliance storm event).

If constituent concentrations of waters entering the project area (run-on) 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.

Discharge monitoring results shall not be used by Water Board staff for determining compliance with NELs for storms with intensities in excess of the compliance storm event or where run-on exceeds the NELs and the discharge does not increase the level of the exceedance. The Discharger is required to provide supporting documentation such as run-on monitoring data, on-site rain gauge data, and/or rainfall data provided by the National Oceanic and Atmospheric Administration (NOAA) to the Lahontan Water Board for any claims that an effluent limit excursion or exceedance occurred due to these circumstances. The supporting information shall clearly show when the sample was collected relative to the occurrence of the compliance storm event (i.e., the time of rainfall relative to the time of sample collection must be documented). The information will be evaluated for the merits of any claim for relief from compliance requirements for the NELs.

Additionally, dischargers must provide documentation for any claim that effluent leaving the project boundaries does not reach receiving waters or MS4s for relief from the NELs for discharges to surface waters.

B. Multiple Sample Data

The NELs in this General Permit are evaluated as a maximum daily effluent limitation (MDEL). Pursuant to NPDES regulations (40CFR Part 122.2), *maximum daily discharge* limitation means the highest allowable "daily discharge." *Daily* discharge means the "discharge or a pollutant" measured during a calendar day or any 24-hour period that reasonable represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of measurement other than mass, the daily discharge is calculated as the average measurement of the pollutant over the day. For purposes of this General Permit, the daily average effluent value is defined as the arithmetic mean of the daily effluent data. When determining compliance when more than one sample result is available due to collection at multiple discharge points and/or multiple times during the calendar day, the Discharger shall compute the arithmetic mean concentration for each day of discharge.

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

C. Maximum Daily Effluent Limitation (MDEL)

If the average daily concentration exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period.

D. Sampling by Other Parties

Sampling may be conducted by persons other than the Discharger. Water Board staff, operators of municipal separate storm sewer systems, or others may analyze storm samples. Samples collected by others may be used with other data to determine MDELs and to conduct compliance determinations, as provided above.

ATTACHMENT A – ACRONYM LIST

ATS - Active Treatment System
BAT - Best Available Technology Economically Achievable
BCT - Best Conventional Pollutant Control Technology
BMPs - Best Management Practices
BPT - Best Practicable Technology Economically Achievable
CASQA – California Storm Water Quality Association
CCR - California Code of Regulations
CEQA - California Environmental Quality Act
CFR – Code of Federal Regulations
CPESC - Certified Professional in Erosion and Sediment Control
CPSWQ - Certified Professional in Storm Water Quality
CSMRP - Construction Site Monitoring and Reporting Plan
COC – Chain of Custody
CWA - Clean Water Act
CWC - California Water Code
DNQ - Detected, but Not Quantified
DSA - Disturbed Soil Areas
ELG – Effluent Limitation Guideline
LID – Low Impact Development
LRP – Legally Responsible Person
LUP – Linear Underground/Overhead Project
MATC – Maximum Allowable Threshold Concentration
MCL - Maximum Contaminant Level
MDEL - Maximum Daily Effluent Limitation
MDL – Method Detection Limit
ML - Minimum Level
MRP – Monitoring and Reporting Program
MS4 – Municipal Separate Storm Sewer System
NAL – Numeric Action Level
ND - Not Detected
NEL – Numeric Effluent Limitation
NICET - National Institute for Certification in Engineering Technologies
NOA – Notice of Applicability
NOAA – National Oceanic and Atmospheric Administration
NOT – Notice of Termination
NOI - Notice of Intent
NPDES – National Pollutant Discharge Elimination System
NSPS - New Source Performance Standards
NTU – Nephelometric Turbidity Units
NWS – National Weather Service
PRD - Permit Registration Document
QSD - Qualified SWPPP Developer
QSP - Qualified SWPPP Practitioner
REAP - Rain Event Action Plan

RL – Reporting Limit
RUSLE - Revised Universal Soil Loss Equation
SEZ - Stream Environment Zone
SMARTS - Storm water Multi-Application and Report Tracking System
SWAMP – Surface Water Ambient Monitoring Program
SWPPP - Storm Water Pollution Prevention Plan
USEPA – United States Environmental Protection Agency
WDID - Waste Discharger Identification
WDRs - Waste Discharge Requirements
WQBEL - Water Quality-Based Effluent Limitations
WQO – Water Quality Objective

ATTACHMENT B – GLOSSARY

Active Treatment System (ATS)
A treatment system that employs chemical coagulation, chemical flocculation, or electrocoagulation to aid in the reduction of turbidity caused by fine suspended sediment.

Acute Aquatic Toxicity Test
A test to measure the relative severity of chemical toxicity on aquatic life. For aquatic toxicity, an effect observed within 96 hours or less is considered acute.

Anticipated Storm Event
An anticipated storm event is any weather pattern that is forecast to have a 30% or greater chance of producing precipitation in the project area, as determined by the precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast).

Approved Signatory
A person who has been authorized by the Legally Responsible Person to sign, certify, and electronically submit Permit Registration Documents, Notices of Termination, and any other documents, reports, or information required by the General Permit, the State or Regional Water Board, or USEPA. The Approved Signatory must be one of the following:

1. For a corporation or limited liability company: a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in change of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation or limited liability company; or (b) the manager of the facility if authority to sign documents has been assigned or delegated to the manager of the facility if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

2. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

3. For a municipality, State, Federal, or other public agency: a principal executive officer, ranking elected official, city manager, council president, or any other authorized public employee with managerial responsibility over the construction or land disturbance project (including, but not limited to, project manager, project superintendent, or resident engineer);

4. For the military: any military officer or Department of Defense civilian, acting in an equivalent capacity to a military officer, who has been designated;

5. For a public university: an authorized university official;

6. For an individual: the individual, because the individual acts as both the Legally Responsible Person and the Approved Signatory; or

7. For any type of entity not listed above (e.g. trusts, estates, receivers): an authorized person with managerial authority over the construction or land disturbance project.

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.

Beneficial Uses
California Water Code defines beneficial uses as those uses of the waters of the state that must be protected against quality degradation as specified in the Basin Plan.

Best Available Technology Economically Achievable (BAT)
As defined by USEPA, BAT is a technology-based standard established by the Clean Water Act as the most appropriate means available on a national basis for controlling the direct discharge of toxic and nonconventional pollutants to navigable waters. The BAT effluent limitations guidelines, in general, represent the best existing performance of treatment technologies that are economically achievable within an industrial point source category or subcategory.

Best Conventional Pollutant Control Technology (BCT)
As defined by USEPA, BCT is a technology-based standard for the discharge from existing industrial point sources of conventional pollutants including biochemical oxygen demand (BOD), total suspended sediment (TSS), fecal coliform, pH, and oil and grease.

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

Chain of Custody (COC)
The form used to track sample handling as samples progress from sample collection through the analysis and reporting process in the laboratory. COC forms can be obtained from an analytical laboratory upon request.

Coagulation
The clumping of particles in a discharge to settle out impurities, often induced by chemicals such as lime, alum, and iron salts.

Common Plan of Development
Generally a contiguous area where multiple, distinct construction activities may be taking place at different times under one plan. A plan is generally defined as any piece of documentation or physical demarcation that indicates that construction activities may occur on a common plot. Such documentation could consist of a tract map, parcel map, demolition plans, grading plans or contract documents. Broad planning documents such as land use master plans, conceptual master plans, or broad-based CEQA or NEPA documents that identify potential projects for an agency or facility are not considered common plans of development.

Compliance Storm Event
The 20-year, 1-hour storm, which is equal to 1 inch of rainfall during a 1-hour period. For ATSs, the compliance storm event is the 10-year, 24-hour storm event as determined by the following precipitation frequency maps (expressed in tenths of inches): http://www.wrcc.dri.edu/pcpnfreq/nca10y24.gif.

Daily Average Discharge
The discharge of a pollutant measured during any 24-hour period that reasonably represents a calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily average discharge is calculated as the total mass of the pollutant discharged during the day. For pollutants with limitations expressed in other units such as concentration, the daily average discharge is calculated as the average measurement of the pollutant throughout the day. 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 other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day from outfalls identified for the project site.

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

Diversion
Activities taken to route flowing water or groundwater around or away from a work site that does not cause a measurable change in water quality upstream or downstream of the work area.

Dewatering
Activities taken to remove excess water in an excavation or impoundment by pumping or other mechanical means. Dewatering fluids generally contain pollutants such as sediment.

Direct Discharge
The addition of any pollutant to waters of the U.S. from any point source including surface runoff that is collected or channeled by human activity; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person that do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances leading into a privately owned treatment works.

Discharger
The Legally Responsible Person or entity subject to this General Permit.

Effluent
Any discharge of water by a discharger either to the receiving water or beyond the property boundary controlled by the discharger.

Effluent Limitation
Any numeric or narrative restriction imposed on quantities, discharge rates, or concentrations of pollutants that are discharged beyond a project boundary from point sources into waters of the U.S., the waters of the contiguous zone, or the ocean.

Effluent Limitation Guideline (ELG)
ELGs are U.S. national standards for wastewater discharges to surface waters and publicly owned treatment works. The USEPA issues ELGs for categories of industrial sources of water pollution under the Clean Water Act.

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.

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

Index Period
The period of time during which bioassessment samples must be collected to produce results suitable for assessing the biological integrity of streams and rivers. Instream communities naturally vary throughout the seasons and sampling during the index period ensures that samples are collected during a period when communities are stable such that year to year consistency is obtained. The index period for the Lake Tahoe Hydrologic Unit is July 1 through August 15.

Legally Responsible Person
The Legally Responsible Person (LRP) will typically be the project proponent. The categories of persons or entities that are eligible to serve as the LRP are set forth below. For any construction or land disturbance project where multiple persons or entities are eligible to serve as the LRP, those persons or entities shall select a single LRP. In exceptional circumstances, a person or entity that qualifies as the LRP may

provide written authorization to another person or entity to serve as the LRP. In such a circumstance, the person or entity that provides the authorization retains all responsibility for compliance with the General Permit. Except as provided in category 2(d), a contractor who does not satisfy the requirements of any of the categories below is not qualified to be an LRP.

The following persons or entities may serve as an LRP:

1. A person, company, agency, or other entity that possesses a real property interest (including, but not limited to, fee simple ownership, easement, leasehold, or other rights of way) in the land upon which the construction or land disturbance activities will occur for the regulated site.

2. In addition to the above, the following persons or entities may also serve as an LRP:

    a. For linear underground/overhead projects (LUPs), the utility company, municipality, or other public or private agency that owns or operates the LUP;

    b. For land controlled by an estate or similar entity, the person who has day-to-day control over the land (including, but not limited to, a bankruptcy trustee, receiver, or conservator);

    c. For pollution investigation and remediation projects, any potentially responsible party that has received permission to conduct the project from the holder of a real property interest in the land; or

    d. For U.S. Army Corp of Engineers projects, the U.S. Army Corps of Engineers may provide written authorization to its bonded contractor to serve as the LRP, provided, however, that the U.S. Army Corps of Engineers is also responsible for compliance with the general permit, as authorized by the Clean Water Act or the Federal Facilities Compliance Act.

Maximum Allowable Threshold Concentration (MATC)
For ATS use, the allowable concentration of residual, or dissolved coagulant/flocculant in effluent. The MATC shall be specific to the coagulant/flocculant used, and be based on toxicity testing conducted by an independent, third-party laboratory.

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

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 Storm Water Collection System

A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) which 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; and

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

New Source Performance Standards
New Source Performance Standards **(**NSPS**)** are pollution control standards issued by the USEPA. NSPS under the CWA set the level of allowable wastewater discharges from new industrial facilities**.**

Non-Storm Water
Any wastewater that is not composed entirely of storm water, as defined below.

Non-Visible Pollutants
Pollutants that cannot be visually observed and are associated with a specific site, material, or activity that can cause a negative impact on water quality. Examples include chlorine, fertilizers, and pesticides/herbicides.

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

Post-Construction BMPs
Structural and non-structural controls that detain, retain, or reduce the discharge of wastewater and pollutants to receiving waters after final stabilization is attained.

Qualified SWPPP Developer (QSD)
Individual who is authorized to develop and revise SWPPPs.

Qualified SWPPP Practitioner (QSP)
Individual assigned responsibility for non-storm water and storm water visual observations, sampling and analysis, and responsibility to ensure full compliance with the permit and implementation of all elements of the SWPPP and CSMRP.

Rain Event Action Plan (REAP)
A written document specific to each storm event, that when implemented, is designed to protect all exposed portions of the site within 24 hours of any likely precipitation.

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.

Revised Universal Soil Loss Equation (RUSLE)
Empirical model developed by the USDA that calculates average annual soil loss as a function of rainfall and runoff erosivity, soil erodibility, topography, erosion controls, and sediment controls.

Routine Maintenance
Activities intended to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Run-on
Waters that originate offsite and flow onto the project site.

Storm Water Multi-Application and Report Tracking System (SMARTS)
The State Water Board's electronic system to manage administrative aspects of this General Permit, including obtaining and terminating coverage, and submitting required data and reports.

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

Structural Controls
Any physical facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution.

Wadeable Stream
A stream that can be crossed safely by wading during an index period.

Water of the United States
Generally refers to surface waters, as defined by the USEPA in 40 CFR 122.2.

Water Quality Objectives (WQOs)
Water quality objectives are defined in the California Water Code as limits or levels of water quality constituents or characteristics that are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

ATTACHMENT C – CONSTRUCTION SITE MONITORING AND REPORTING PROGRAM (CSMRP)

Title 40 of the Code of Federal Regulations at section 122.48 (40 CFR 122.48) requires that all 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 CSMRP establishes minimum monitoring and reporting requirements for this General Permit, which implement the federal and California regulations. Additional monitoring may be required as specified by the Executive Officer.

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall be identified in the CSMRP filed as part of the SWPPP with the NOI. Discharge locations may be updated as necessary if certain phases or project segments are completed and permanently stabilized. The updated sampling locations must be maintained in the SWPPP and made available to Lahontan Water Board staff upon request.

B. With the exception of field analysis conducted by dischargers for turbidity and pH, all laboratories analyzing monitoring samples shall 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 shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

D. Dischargers shall 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 Associate).

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

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

G. All inspection, maintenance repair and sampling activities at the project location shall be performed or supervised by a Qualified SWPPP Practitioner (QSP) representing the discharger. The QSP may delegate any or all these activities to an employee appropriately trained to do the task(s).

H. Dischargers are not required to conduct visual inspections or physically collect samples outside of daylight hours, or when conditions exists that would be dangerous to personnel. Winter period (October 16 through April 30) monitoring requirements are also waived if significant environmental impacts would result from road system use to access the activity area, or if worker safety would be compromised. An explanation of the missed monitoring requirements due to these exceptions shall be recorded in writing and provided to Lahontan Water Board with the Annual Report.

II. CONSTRUCTION SITE MONITORING AND REPORTING PLAN REQUIREMENTS

A. Pursuant to Water Code Sections 13383 and 13267, all dischargers subject to this General Permit shall develop and implement a written site-specific Construction Site Monitoring and Reporting Plan (CSMRP) in accordance with the requirements of this Section. The CSMRP shall be developed prior to the commencement of construction activities, and revised as necessary to reflect project revisions. The CSMRP shall be part of the Storm Water Pollution Prevention Plan (SWPPP).

B. Dischargers electing to operate an Active Treatment System (ATS) shall develop and implement a supplemental monitoring program for these systems in accordance with the requirements established in Attachment E of this General Permit.

C. The CSMRP shall be developed and implemented to include the monitoring and reporting requirements specified in this CSMRP and shall at a minimum address the following objectives:

1. Demonstrate that the site is in compliance with the discharge prohibitions and applicable effluent limitations.

2. Determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.

3. Determine whether immediate corrective actions, additional BMPs, or SWPPP revisions are necessary to reduce pollutants in storm water discharges and authorized non-storm water discharges.

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

5. Demonstrate that appropriate sample collection, handling, and analyses procedures are implemented.

III. VISUAL INSPECTIONS

A. Visual Inspections

1. During the active construction season (defined as May 1 through October 15 for purposes of this General Permit), an inspection of the construction site shall be made at the end of each work day. Dischargers working (under an approved variance) during the period from October 16 through April 30 of the following year shall also conduct inspections on a daily basis. During the Winter or inactive period (defined as October 16 through April 30 for purposes of this permit), Dischargers must conduct inspections at least once per month during daylight hours.

2. During both active and inactive periods, a construction site inspection shall also be performed within 24 hours prior to an anticipated precipitation event (chance of precipitation is forecasted at 30 percent or greater), daily during extended storm events, and within 24 hours after actual storm events. This requirement does not apply during snow events. If the discharger cannot complete an inspection within the specified time frames, the reason for the delay shall be recorded in writing and maintained with the next inspection report.

3. Inspections shall be performed periodically, in accordance with this General Permit, from the commencement of construction activities until termination of coverage under this General Permit. The purpose of the inspections is to discover potential water quality problems at the construction site so the Discharger can implement corrective measures immediately. The inspections will also be used to document compliance with the conditions of the General Permit and the SWPPP and to evaluate the effectiveness of the SWPPP and the REAP.

4. Inspection procedures shall be specified in the CSMRP. Observations at all designated effluent outfalls and other locations where storm water may discharge from the project boundaries to surface waters or municipal storm sewer systems must be included in the specified

procedures. Inspections shall be conducted to identify and report the compliance status for following items, as a minimum:

a. Damage to containment dikes or erosion control fencing.

b. Improperly installed or ineffective erosion control fencing.

c. Unauthorized vehicle access, or vehicle access into designated non-construction areas not subject to disturbance.

d. Boundary fence damage or removal.

e. Disturbed areas with inadequate erosion prevention and sediment control protection.

f. Evidence of any sediment leakage through erosion control fencing or containment dikes.

g. Soil piles and other earthen materials which are unprotected or located in a drainage way.

h. Spilled and improperly stored chemicals, paint, fuel, oil, solvents, sealants, etc.

i. Upstream runoff diversion structures (are in place and operational).

j. Any evidence of sediment tracking from construction equipment.

k. Any signs of soil erosion or deposition down gradient from runoff discharges.

l. Sediment accumulation within onsite storm water drainage control facilities, and facilities in need of maintenance to ensure effectiveness.

m. Any evidence of non-storm water discharges from the project site. The inspection report shall note whether any such discharges are authorized, or are illicit and not authorized. If authorized, the condition of the applicable BMPs must be indicated.

n. Any observed impacts to the receiving water.

5. All inspections shall be recorded and maintained on a construction site inspection form provided as part of the CSMRP. Inspection forms shall be maintained and made available to the Lahontan Water Board, State Water Board, or USEPA staff, or designated representative, upon request. At a minimum the following information shall be recorded:

a. Weather conditions at the time of the inspection, including presence or absence of precipitation, estimated time of beginning of storm event, duration of storm event, time elapsed since last storm event, and approximate amount of rainfall in inches.

b. Site information, including stage of construction, activities completed, and approximate area of the site exposed to storm water runoff.

c. A description of BMPs evaluated (i.e., erosion controls, sediment controls, chemical and waste controls, and non-storm water controls) including the locations and any deficiencies noted.

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

e. A description of any non-storm water discharges and spills/leaks observed.

f. Observations at all relevant discharge points and downstream locations in the receiving water, including the presence or absence of floating and suspended materials, sheens, discolorations, turbidity, and odors.

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

h. Photographs taken during the inspection, if any.

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

j. A space shall be provided to record follow up corrective actions that have been completed in response to the inspection report. A summary of the completed corrective actions shall be recorded in this space with the date of completion.

IV. STORM WATER MONITORING

A. Discharge Monitoring Locations

1. The Discharger shall perform sampling and analysis of storm water and non-storm water discharges to characterize discharges associated with construction activity from the entire project disturbed area.

2. Effluent samples shall be collected, at a minimum, at all designated discharge points where storm water and authorized non-storm water is discharged offsite.

3. Dischargers shall ensure that effluent samples are representative of the discharge in each drainage area based on visual observation of the water and upstream conditions.

4. Dischargers shall 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. Run-on sampling locations shall be identified in the CSMRP if applicable.

5. Dischargers who deploy an ATS on their site, or a portion of their site, shall collect ATS effluent samples and measurements from the discharge pipe or another location representative of the nature of the discharge.

6. Discharge point monitoring locations shall be identified in the CSMRP and updated if disturbed soil areas change during the course of the project.

B. Receiving Water Monitoring Locations

When receiving water monitoring is determined to apply to the project (see subsection C.3. below), the following shall apply:

1. **Upstream/up-gradient.** Dischargers shall obtain upstream/up-gradient receiving water samples from a representative and accessible location as close as possible to and upstream from the effluent discharge.

2. **Downstream/down-gradient.** Dischargers shall obtain downstream/down-gradient receiving water samples from a representative and accessible location as close as possible to and downstream from the effluent discharge.

3. Receiving water monitoring locations shall be identified in the CSMRP.

C. Sampling Requirements

1. Storm Water Effluent Discharges.

a. During the active construction season (defined as May 1 through October 15 for purposes of this General Permit), Dischargers shall collect one grab sample from each discharge point where storm water is discharged off the project boundaries and/or to surface waters. A minimum of three samples must be collected for each day that storm water is discharged offsite. If fewer than three discharge points are present at the site, at least three samples shall be collected from the discharge location(s). Dischargers working under an approved variance during the period from October 16

through April 30 of the following year shall collect samples in accordance with the protocols described above.

b. During the period from October 16 through April 30 of the following year, Dischargers must collect a representative sample from each designated discharge sampling point during a minimum of two storm events that produce a discharge off the project boundaries. Sampling is only required for one day during each storm event. A minimum of three samples for each day sampling is conducted is required.

c. Samples shall be analyzed onsite for turbidity using portable field instruments calibrated in accordance with manufacturer specifications. If there is a visible oily sheen at any discharge point, a sample shall be collected and analyzed for grease and oil. Samples shall be collected and analyzed, consistent with Table C-1.

2. Non-visible Pollutants in Effluent. The Discharger shall identify in the CSMRP potential non-visible pollutants that may contaminate storm water or non-storm water discharged from the project site (i.e., acids and bases, solvents, lubricants, fertilizers; pollutants known to have been spilled and have contaminated the soil; concrete or soil amendments, such as gypsum, that may result in increase pH). If a breach, malfunction, leakage, or spill is identified that has the potential to result in the discharge of a non-visible pollutant, or the discharge of the non-visible pollutants is expected, the discharger shall perform sampling for the specific non-visible pollutants at the discharge points corresponding to the applicable drainage area. This includes sampling for pH using a portable field meter when runoff has come into contact with uncured concrete or other materials that could affect the pH of effluent. The discharger shall also collect and analyze a sample of storm water runoff that has not come into contact with the pollutants of concern for comparison with the non-visible pollutant discharge sample.

Analyses may include, but are not limited to, indicator parameters such as volatile organic compounds, semi-volatile organic compounds, metals, salts and nutrients such as nitrogen and phosphorus, and other analyses as appropriate. The CSMRP shall specify appropriate indicator parameters for each non-visible pollutant identified, as well as appropriate analytical methods, detection limits, sampling procedures, and sampling preservation. When possible, these methods should be consistent with 40 CFR Part 136 to the maximum extent possible.

For protection of receiving waters the pH of effluent samples should not fall outside of the range of 6.0 to 9.0. This range is set as a

numeric action level (NAL). If the pH of effluent is outside of the NAL, the discharger must investigate the cause of the excursion and implement appropriate corrective measures. If the pH levels are determined to be from natural causes, the discharger must provide data (e.g., from run-on) to demonstrate this condition.

3. **Receiving Waters.** For certain sites and situations, such as stream restoration projects or other projects conducted within or adjacent to surface waters, discrete discharge points and effluent outfalls may not exist. In these cases receiving water sampling is more appropriate to evaluate potential impacts to water quality. For these sites, during the period from May 1 through October 15 of each year, the discharger shall collect a minimum of three samples per day for each day that storm water or authorized non-storm water is discharged to receiving waters at both upstream locations above the project effects and downstream locations below the project area. Dischargers working under an approved variance during the period of October 16 through April 30 the following year shall collect samples in accordance with the protocols described above. Samples shall be analyzed in accordance with Table C-1.

4. **Bioassessments.** Dischargers operating on sites that disturb 30 acres or more of the landscape and have a direct discharge to a wadeable stream or streams shall conduct or participate in benthic macroinvertebrate bioassessment prior to commencement of construction activity, as specified in Attachment C-1.

Table C-1. Monitoring Requirements (May 1 through October 15)*

Parameter	Units	Test Method	Minimum Detection Limit	Frequency
Turbidity	NTU	1	1 NTU	2
pH	SU	1	0.2 pH	4
Grease and Oil	mg/L	EPA 1664 w/silica gel treatment (SGT)	2 mg/L	3
Non-visible Pollutants		4	4	4
Bioassessment	NA	5	NA	6

Notes:

1 - Shall be field tested with a calibrated portable instrument.

2 - **Effluent**-Minimum of three samples per day storm water is discharged - All designated loctions must be sampled.
Receiving waters – When discharge sampling is determined to be inappropriate, collect three samples per day at designated sampling locations for each day that storm water is discharged to receiving waters.

3 - **Effluent** - When visible sheen is observed at discharge point.

4 - The units, test method, and minimum detection limit shall be identified in the discharger's CSMRP for each non-visible pollutant identified by the discharger. Analytical methods shall be in accordance with 40 CFR Part 136. Monitoring for non-visible pollutants shall be conducted as specified in section IV.C.2 of this MRP (when suspected in the discharge or when the potential to discharge has been determined).

5 - The current SAFIT STEs (November 28, 2006) list requirements for both the Level I and Level II taxonomic effort, and area located at http://www.swrcb.ca.gov/swamp/docs/safit/ste_list.pdf. When new editions are published by SAFIT, they will supersede all previous editions. All editions will be posted at the State Water Board's SWAMP website.

6 - Applicable only to dischargers with a total project-related ground disturbance of 30 acres or more and a direct discharge to a receiving water. See Attachment C-1.

*Note - see section C of this attachment for requirements during inactive construction period

V. GENERAL REPORTING REQUIREMENTS

A. All data and reports must be submitted through the SMARTS and be certified by the LRP or an approved signatory.

B. All turbidity and pH analytical results collected from field instruments must be reported within five days after storm event conclusion. All other results determined by an analytical laboratory must be submitted within five days of receipt of the results form the laboratory.

C. The Discharger shall 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.

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

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

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

3. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory 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.

E. 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.

VI. TWENTY FOUR-HOUR REPORTING

The Discharger shall immediately notify the Lahontan Water Board orally within 24 hours whenever an adverse condition occurs as a result of a discharge. An adverse condition includes, but is not limited to, a violation or

threatened violation of the conditions of this General Permit, significant spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance pursuant to Section 13267(b) of the California Water Code, a written notification of the adverse condition shall be submitted to the Lahontan Water Board within five (5) business days of occurrence. The written notification shall 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.

In the event that sampling results exceed any applicable NEL, the dischargers shall orally notify the Lahontan Water Board within 24 hours after the NEL exeedance has been identified and electronically submit all storm event sampling results through the SMARTS within five (5) business

days after the NEL exceedance has been identified.

VII. ANNUAL REPORT

On or before **November 30** of each year, the discharger shall prepare and electronically submit through the SMARTS an Annual Report for the period of October 16 of the previous year through October 15 of the current year. The SMARTS reporting module requests the following information:

A. The project name and location.

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

C. A summary and evaluation of all sampling and analysis results, including copies of laboratory reports and rain gauge measurements, from monitoring activities conducted pursuant to section IV of this CSMRP.

D. A certified statement indicating whether or not the site has been winterized in accordance with BMPs for erosion prevention and sediment control.

E. Documentation of required QSP certifications and personnel training. Personnel training records shall be maintained on site and include, at a minimum, signed attendance sheets and agendas from pre-construction meetings covering SWPPP requirements. Additional information or training may be recorded as appropriate. The intent of this requirement is to ensure that all construction personnel are educated on their responsibilities for controlling pollutants in storm water discharges.

F. A certified statement indicating whether or not the project site is in compliance with the conditions of the general permit and the SWPPP. This certification shall be signed by a Qualified SWPPP Practitioner

(QSP). This certification should be based upon site inspections required in section III of this CSMRP.

VIII. FINAL REPORT

Following completion of project construction, the Discharger shall prepare and electronically submit through the SMARTS a final report containing the information required under the Annual Report as well as the following information:

A. Details of any modification of the construction 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. Records of all inspections (including the inspection log book), compliance certificates, monitoring reports, and noncompliance reporting must be maintained by the project proponent for a period of at least three years.

D. The final monitoring report shall be certified by the LRP, or the approved signatory of the LRP, and submitted within 30 days of project completion.

IX. MONITORING AND REPORTING REQUIREMENTS FOR RESTORATION PROJECTS

Because restoration projects are often executed to improve existing water quality conditions, it is necessary to monitor restoration project effectiveness. Monitoring information can also identify project and/or construction method strengths and weaknesses. This knowledge can feedback into the maintenance of the existing system and also be applied to future water quality improvement projects.

To monitor the success of the restoration of a disturbed area, the project proponent shall submit a detailed Restoration Monitoring Plan as part of the CSMRP with annual performance criteria for the review and approval of the Lahontan Water Board staff. The Restoration Monitoring Plan shall include a contingency plan for actions to be taken if performance criteria are not met.

Ideally, pre- and post-construction monitoring is required to best evaluate the success of the restoration project. Monitoring should include, but not be limited to, assessments of vegetative cover and water quality and quantity measurements. Where appropriate, monitoring should also include upgradient and downgradient sampling of water entering a pretreatment system (sediment can, sand and oil trap).

Recommendations for a Restoration Monitoring Plan include the following:

A. Pre- and Post-project surveys of vegetative cover at a representative scale for the site, including an inventory of species diversity and an assessment of the restored soil's ability to infiltrate runoff;

B. Pre- and Post project cross-sectional surveys of stream channel dimensions and elevations (if applicable);

C. Post-project monitoring of the planting survival;

D. Photo survey including photo-point locations of the disturbed/restored area.

E. Pre- and post-project groundwater level measurements from at least two piezometers installed for observing groundwater levels;

F. Site assessments of the success of the implemented erosion and sediment control measures;

G. Water quality analyses to include Total N, Total P, Conductivity, and Turbidity at a minimum, in addition to other required sampling under this General Permit.

ATTACHMENT C-1 – BIOASSESSMENT MONITORING GUIDELINES

Bioassessment monitoring is required for projects that meet all of the following criteria:

1. The project directly discharges runoff to a freshwater wadeable stream (or streams) that is either: (a) listed by the State Water Board or USEPA as impaired due to sediment, and/or (b) tributary to any downstream water body that is listed for sediment; and/or have the beneficial use SPAWN & COLD & MIGRATORY

AND

2. Total project-related ground disturbance exceeds 30 acres. For all such projects, the discharger shall conduct bioassessment monitoring, as described in this section, to assess the effect of the project on the biological integrity of receiving waters.

Bioassessment shall include:

1. The collection and reporting of specified instream biological data

2. The collection and reporting of specified instream physical habitat data

Bioassessment Exception

1. If a site qualifies for bioassessment, but the construction schedule does not allow for pre-construction sampling within the index period, the discharger shall:

2. Receive Lahontan Water Board approval for the sampling exception

3. Invest $7,500.00 times the number of samples required into the SWAMP program as compensation.

4. Make a check payable to: Cal State Chico Foundation (SWAMP Bank Account) or San Jose State Foundation (SWAMP Bank Account) and include the WDID# on the check for the amount calculated for the exempted project.

5. Send a copy of the check to the Lahontan Water Board office.

Site Locations and Frequency

Macroinvertebrate samples shall be collected both before ground disturbance is initiated and after the project is completed. The “after” sample(s) shall be collected after at least one winter season resulting in surface runoff has transpired after project-related ground disturbance has ceased. “Before” and “after” samples shall be collected both upstream and downstream of the project’s discharge. Upstream samples should be taken immediately before the sites outfall and downstream samples should be taken immediately after the outfall (when safe to collect the samples). Samples should be collected for each freshwater wadeable stream that is listed

as impaired due to sediment, or tributary to a water body that is listed for sediment. Habitat assessment data shall be collected concurrently with all required macroinvertebrate samples.

Index Period (Timing of Sample Collection)

Macroinvertebrate sampling shall be conducted between July 1 and August 15 each year, after peak snowmelt flows but before the streams may become intermittent.

Field Methods for Macroinvertebrate Collections

In collecting macroinvertebrate samples, the discharger shall use the "Reachwide Benthos (Multi-habitat) Procedure" specified in Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California (Ode 2007).[1]

Physical - Habitat Assessment Methods

The discharger shall conduct, concurrently with all required macroinvertebrate collections, the "Full" suite of physical habitat characterization measurements as specified in Standard Operating Procedures for Collecting Benthic Macroinvertebrate Samples and Associated Physical and Chemical Data for Ambient Bioassessments in California (Ode 2007), and as summarized in the Surface Water Ambient Monitoring Program's Stream Habitat Characterization Form — Full Version.

Laboratory Methods

Macroinvertebrates shall be identified and classified according to the Standard Taxonomic Effort (STE) Level I of the Southwestern Association of Freshwater Invertebrate Taxonomists (SAFIT),[2] and using a fixed-count of 600 organisms per sample.

Quality Assurance

The discharger or its consultant(s) shall have and follow a quality assurance (QA) plan that covers the required bioassessment monitoring. The QA plan shall include, or be supplemented to include, a specific requirement for external QA checks (i.e., verification of taxonomic identifications and correction of data where errors are identified). External QA checks shall be performed on one of the discharger's macroinvertebrate samples collected per calendar year, or ten percent of the samples per year (whichever is greater). QA samples shall be randomly selected. The external QA checks shall be paid for by the discharger, and performed by the California Department of Fish and Game's Aquatic Bioassessment Laboratory. An alternate laboratory with equivalent or better expertise and performance may be used if approved in writing by State Water Board staff.

[1] This document is available on the Internet at: http://www.swrcb.ca.gov/swamp/docs/phab_sopr6.pdf.
[2] The current SAFIT STEs (28 November 2006) list requirements for both the Level I and Level II taxonomic effort, and are located at: http://www.swrcb.ca.gov/swamp/docs/safit/ste_list.pdf. When new editions are published by SAFIT, they will supersede all previous editions. All editions will be posted at the State Water Board's SWAMP website.

Sample Preservation and Archiving

The original sample material shall be stored in 70 percent ethanol and retained by the discharger until: 1) all QA analyses specified herein and in the relevant QA plan are completed; and 2) any data corrections and/or re-analyses recommended by the external QA laboratory have been implemented. The remaining subsampled material shall be stored in 70 percent ethanol and retained until completeness checks have been performed according to the relevant QA plan. The identified organisms shall be stored in 70 percent ethanol, in separate glass vials for each final ID taxon. (For example, a sample with 45 identified taxa would be archived in a minimum of 45 vials, each containing all individuals of the identified taxon.) Each of the vials containing identified organisms shall be labeled with taxonomic information (i.e., taxon name, organism count) and collection information (i.e., site name/site code, waterbody name, date collected, method of collection). The identified organisms shall be archived (i.e., retained) by the discharger for a period of not less than three years from the date that all QA steps are completed, and shall be checked at least once per year and "topped off" with ethanol to prevent desiccation. The identified organisms shall be relinquished to the State Water Board upon request by any State Water Board staff.

Data Submittal

The macroinvertebrate results (i.e., taxonomic identifications consistent with the specified SAFIT STEs, and number of organisms within each taxa) shall be submitted to the State Water Board in electronic format. The State Water Board's Surface Water Ambient Monitoring Program (SWAMP) is currently developing standardized formats for reporting bioassessment data. All bioassessment data collected after those formats become available shall be submitted using the SWAMP formats. Until those formats are available, the biological data shall be submitted in MS-Excel (or equivalent) format.[3]

The physical/habitat data shall be reported using the standard format titled SWAMP Stream Habitat Characterization Form — Full Version.[4]

Invasive Species Prevention

In conducting the required bioassessment monitoring, the discharger and its consultants shall take precautions to prevent the introduction or spread of aquatic invasive species. At minimum, the discharger and its consultants shall follow the recommendations of the California Department of Fish and Game to minimize the introduction or spread of the New Zealand mudsnail.

[3] Any version of Excel, 2000 or later, may be used.

[4] Available at: http://www.waterboards.ca.gov/water_issues/programs/swamp/docs/reports/fieldforms_fullversion052908.pdf

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 California 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 shall 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 shall 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 shall 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 shall 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 shall 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));

2. 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));

3. 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

4. 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

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

   "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which 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 which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR 122.41(m)(2).)

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

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

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

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

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

5. Notice

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

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

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of

claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR 122.41(n)(2).)

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

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

This Order is not transferable to any person except after notice to the Lahontan Water Board. The Lahontan Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and

incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

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

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in 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. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall 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 for 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 request of the Lahontan Water Board Executive Officer at any time. (40 CFR 122.41(j)(2).)

Records of monitoring information shall 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).)

Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

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 shall 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 shall 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 shall 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 shall 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 shall 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 shall 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 shall 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 shall 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).)

Monitoring Reports

1. Monitoring results shall 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 Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall 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, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR 122.41(l)(4)(iii).)

24-Hour Reporting

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

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

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

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

7. 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).)

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, shall be submitted no later than 14 days following each schedule date. (40 CFR 122.41(l)(5).)

Planned Changes

The Discharger shall 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 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).)

Anticipated Noncompliance

The Discharger shall 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).)

Other Noncompliance

The Discharger shall 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 shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR 122.41(l)(7).)

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 shall promptly submit such facts or information. (40 CFR 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Lahontan Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387

ATTACHMENT E – ACTIVE TREATMENT SYSTEM (ATS) REQUIREMENTS

Table 1 – Numeric Effluent Limitations, Numeric Action Levels, Test Methods, Detection Limits, and Reporting Units

Parameter	Test Method	Discharge Type	Min. Detection Limit	Units	Numeric Action Level	Numeric Effluent Limitation
Turbidity	EPA 0180.1 and/or field test with a calibrated portable instrument	For ATS discharges	1	NTU	N/A	10 NTU for Daily Flow-Weighted Average & 20 NTU for Any Single Sample

A. Dischargers choosing to implement an Active Treatment System (ATS) on their site shall comply with all of the requirements in this Attachment.

B. The discharger shall maintain a paper copy of each ATS specification onsite in compliance with the record retention requirements in the Special Provisions of this General Permit.

C. ATS Design, Operation and Submittals

1. The ATS shall be designed and approved by a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Professional in Storm Water Quality (CPSWQ); a California registered civil engineer; or any other California registered engineer.

2. The discharger shall ensure that the ATS is designed in a manner to preclude the accidental discharge of settled floc[1] during floc pumping or related operations.

3. The discharger shall design outlets to dissipate energy from concentrated flows.

4. The discharger shall install and operate an ATS by assigning a lead person (or project manager) who has either a minimum of five years construction storm

[1] Floc is defined as a clump of solids formed by the chemical action in ATS systems.

water experience or who is a licensed contractors specifically holding a California Class A Contractors license.[2]

5. The discharger shall prepare an ATS Plan that combines the site-specific data and treatment system information required to safely and efficiently operate an ATS. The ATS Plan shall be electronically submitted to the State Water Board at least 14 days prior to the planned operation of the ATS and a paper copy shall be available onsite during ATS operation. At a minimum, the ATS Plan shall include:

   a. ATS Operation and Maintenance Manual for All Equipment.

   b. ATS Monitoring, Sampling & Reporting Plan, including Quality Assurance/Quality Control (QA/QC).

   c. ATS Health and Safety Plan.

   d. ATS Spill Prevention Plan.

6. The ATS shall be designed to capture and treat (within a 72-hour period) a volume equivalent to the runoff from a 10-year, 24-hour storm event using a watershed runoff coefficient of 1.0.

D. Treatment – Chemical Coagulation/Flocculation

1. Jar tests shall be conducted using water samples selected to represent typical site conditions and in accordance with ASTM D2035-08 (2003).

2. The discharger shall conduct, at minimum, six site-specific jar tests (per polymer with one test serving as a control) for each project to determine the proper polymer and dosage levels for their ATS.

3. Single field jar tests may also be conducted during a project if conditions warrant, for example if construction activities disturb changing types of soils, which consequently cause change in storm water and runoff characteristics.

E. Residual Chemical and Toxicity Requirements

1. The discharger shall utilize a residual chemical test method that has a method detection limit (MDL) of 10% or less than the maximum allowable threshold

[2] Business and Professions Code Division 3, Chapter 9, Article 4, Class A Contractor: A general engineering contractor is a contractor whose principal contracting business is in connection with fixed works requiring specialized engineering knowledge and skill. [http://www.cslb.ca.gov/General-Information/library/licensing-classifications.asp].

concentration[3] (MATC) for the specific coagulant in use and for the most sensitive species of the chemical used.

2. The discharger shall utilize a residual chemical test method that produces a result within one hour of sampling.

3. The discharger shall have a California State certified laboratory validate the selected residual chemical test. Specifically the lab will review the test protocol, test parameters, and the detection limit of the coagulant. The discharger shall electronically submit this documentation as part of the ATS Plan.

4. If the discharger cannot utilize a residual chemical test method that meets the requirements above, the discharger shall operate the ATS in Batch Treatment[4] mode.

5. A discharger planning to operate in Batch Treatment mode shall perform toxicity testing in accordance with the following:

    a. The discharger shall initiate acute toxicity testing on effluent samples representing effluent from each batch prior to discharge[5]. All bioassays shall be sent to a laboratory certified by the Department of Public Health Environmental Laboratory Accreditation Program (ELAP). The required field of testing number for Whole Effluent Toxicity (WET) testing is E113.[6]

    b. Acute toxicity tests shall be conducted with the following species and protocols. The methods to be used in the acute toxicity testing shall be those outlined for a 96-hour acute test in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms, USEPA-841-R-02-012" for Fathead minnow, *Pimephales promelas* (fathead minnow). Acute toxicity for *Oncorhynchus mykiss* (Rainbow Trout) may be used as a substitute for testing fathead minnows.

    c. All toxicity tests shall meet quality assurance criteria and test acceptability criteria in the most recent versions of the EPA test method for WET testing.

    d. The discharger shall electronically report all acute toxicity testing.

[3] The Maximum Allowable Threshold Concentration (MATC) is the allowable concentration of residual, or dissolved, coagulant/flocculant in effluent. The MATC shall be coagulant/flocculant-specific, and based on toxicity testing conducted by an independent, third-party laboratory. A typical MATC would be:
The MATC is equal to the geometric mean of the NOEC (No Observed Effect Concentration) and LOEC (Lowest Observed Effect Concentration) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant. The most sensitive species test shall be used to determine the MATC.
[4] Batch Treatment mode is defined as holding or recirculating the treated water in a holding basin or tank(s) until treatment is complete or the basin or storage tank(s) is full.
[5] This requirement only requires that the test be initiated prior to discharge.
[6] http://www.dhs.ca.gov/ps/ls/elap/pdf/FOT_Desc.pdf.

F. Filtration

1. The ATS shall include a filtration step between the coagulant treatment train and the effluent discharge. This is commonly provided by sand, bag, or cartridge filters, which are sized to capture suspended material that might pass through the clarifier tanks.

2. Differential pressure measurements shall be taken to monitor filter loading and confirm that the final filter stage is functioning properly.

G. Residuals Management

1. Sediment shall be removed from the storage or treatment cells as necessary to ensure that the cells maintain their required water storage (i.e., volume) capability.

2. Handling and disposal of all solids generated during ATS operations shall be done in accordance with all local, state, and federal laws and regulations.

H. ATS Instrumentation

1. The ATS shall be equipped with instrumentation that automatically measures and records effluent water quality data and flow rate.

2. The minimum data recorded shall be consistent with the Monitoring and Reporting requirements below, and shall include:

    a. Influent Turbidity

    b. Effluent Turbidity

    c. Influent pH

    d. Effluent pH

    e. Residual Chemical

    f. Effluent Flow rate

    g. Effluent Flow volume

3. Systems shall be equipped with a data recording system, such as data loggers or webserver-based systems, which records each measurement on a frequency no longer than once every 15 minutes.

4. Cumulative flow volume shall be recorded daily. The data recording system shall have the capacity to record a minimum of seven days continuous data.

5. Instrumentation systems shall be interfaced with system control to provide auto shutoff or recirculation in the event that effluent measurements exceed turbidity or pH.

6. The system shall also assure that upon system upset, power failure, or other catastrophic event, the ATS will default to a recirculation mode or safe shut down.

7. Instrumentation (flow meters, probes, valves, streaming current detectors, controlling computers, etc.) shall be installed and maintained per manufacturer's recommendations, which shall be included in the QA/QC plan.

8. The QA/QC plan shall also specify calibration procedures and frequencies, instrument method detection limit or sensitivity verification, laboratory duplicate procedures, and other pertinent procedures.

9. The instrumentation system shall include a method for controlling coagulant dose, to prevent potential overdosing. Available technologies include flow/turbidity proportional metering, periodic jar testing and metering pump adjustment, and ionic charge measurement controlling the metering pump.

I. ATS Effluent Discharge

1. ATS effluent shall comply with all provisions and prohibitions in this General Permit, specifically the NELs.

2. NELs for discharges from an ATS:

   a. Turbidity of all ATS discharges shall be less than 10 NTU for daily flow-weighted average of all samples and 20 NTU for any single sample.

   b. Residual Chemical shall be < 10% of MATC[7] for the most sensitive species of the chemical used.

3. If an analytical effluent sampling result is outside the range of pH NELs (i.e., is below the lower NEL for pH or exceeds the upper NEL for pH) or exceeds the turbidity NEL (as listed in Table 1), the discharger is in violation of this General

[7] The Maximum Allowable Threshold Concentration (MATC) is the allowable concentration of residual, or dissolved, coagulant/flocculant in effluent. The MATC shall be coagulant/flocculant-specific, and based on toxicity testing conducted by an independent, third-party laboratory. The MATC is equal to the geometric mean of the NOEC (No Observed Effect Concentration) and LOEC (Lowest Observed Effect Concentration) Acute and Chronic toxicity results for most sensitive species determined for the specific coagulant. The most sensitive species test shall be used to determine the MATC.

Permit and shall electronically file the results in violation within 24-hours of obtaining the results.

4. If ATS effluent is authorized to discharge into a sanitary sewer system, the discharger shall comply with any pre-treatment requirements applicable for that system. The discharger shall include any specific criteria required by the municipality in the ATS Plan.

5. Compliance Storm Event:

   Discharges of storm water from ATS shall comply with applicable NELs (above) unless the storm event causing the discharges is determined after the fact to be equal to or larger than the Compliance Storm Event. The Compliance Storm Event for ATS discharges is the 20-year, 1-hour storm, which is equal to 1 inch of rainfall in a 1-hour period. This exemption is dependent on the submission of rain gauge data verifying the storm event is equal to or larger than the Compliance Storm.

J. Operation and Maintenance Plan

1. Each Project shall have a site-specific Operation and Maintenance (O&M) Manual covering the procedures required to install, operate and maintain the ATS.[8]

2. The O&M Manual shall only be used in conjunction with appropriate project-specific design specifications that describe the system configuration and operating parameters.

3. The O&M Manual shall have operating manuals for specific pumps, generators, control systems,and other equipment.

K. Sampling and Reporting Quality Assurance/ Quality Check (QA/QC) Plan

4. A project-specific QA/QC Plan shall be developed for each project. The QA/QC Plan shall include at a minimum:

   a. Calibration – Calibration methods and frequencies for all system and field instruments shall be specified.

   b. Method Detection Limits (MDLs) – The methods for determining MDLs shall be specified for each residual coagulant measurement method. Acceptable minimum MDLs for each method, specific to individual coagulants, shall be specified.

[8] The manual is typically in a modular format covering generalized procedures for each component that is utilized in a particular system.

c. Laboratory Duplicates – Requirements for monthly laboratory duplicates for residual coagulant analysis shall be specified.

L. Personnel Training

1. Operators shall have training specific to using an ATS and liquid coagulants for storm water discharges in California.

2. The training shall be in the form of a formal class with a certificate and requirements for testing and certificate renewal.

3. Training shall include a minimum of eight hours classroom and 32 hours field training. The course shall cover the following topics:

   a. Coagulation Basics –Chemistry and physical processes

   b. ATS System Design and Operating Principles

   c. ATS Control Systems

   d. Coagulant Selection – Jar testing, dose determination, etc.

   e. Aquatic Safety/Toxicity of Coagulants, proper handling and safety

   f. Monitoring, Sampling, and Analysis

   g. Reporting and Recordkeeping

   h. Emergency Response

M. Active Treatment System (ATS) Monitoring Requirements

Any discharger who deploys an ATS on their site shall conduct the following:

1. Visual Monitoring

   a. A designated responsible person shall be on site daily at all times during treatment operations.

   b. Daily on-site visual monitoring of the system for proper performance shall be conducted and recorded in the project data log.

      i. The log shall include the name and phone number of the person responsible for system operation and monitoring.

ii. The log shall include documentation of the responsible person's training.

2. Operational and Compliance Monitoring

   a. Flow shall be continuously monitored and recorded at not greater than 15-minute intervals for total volume treated and discharged.

   b. Influent and effluent pH must be continuously monitored and recorded at not greater than 15-minute intervals.

   c. Influent and effluent turbidity (expressed in NTU) must be continuously monitored and recorded at not greater than 15-minute intervals.

   d. The type and amount of chemical used for pH adjustment, if any, shall be monitored and recorded.

   e. Dose rate of chemical used in the ATS system (expressed in mg/L) shall be monitored and reported 15-minutes after startup and every 8 hours of operation.

   f. Laboratory duplicates – monthly laboratory duplicates for residual coagulant analysis must be performed and records shall be maintained onsite.

   g. Effluent shall be monitored and recorded for residual chemical/additive levels.

   h. If a residual chemical/additive test does not exist and the ATS is operating in a batch treatment mode of operation refer to the toxicity monitoring requirements below.

3. Toxicity Monitoring

   A discharger operating in batch treatment mode shall perform toxicity testing in accordance with the following:

   a. The discharger shall initiate acute toxicity testing on effluent samples representing effluent from each batch prior to discharge.[9] All bioassays shall be sent to a laboratory certified by the Department of Public Health Environmental Laboratory Accreditation Program (ELAP). The required field of testing number for Whole Effluent Toxicity (WET) testing is E113.[10]

   b. Acute toxicity tests shall be conducted with the following species and protocols. The methods to be used in the acute toxicity testing shall be those outlined for a 96-hour acute test in "Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms,

[9] This requirement only requires that the test be initiated prior to discharge.
[10] http://www.dhs.ca.gov/ps/ls/elap/pdf/FOT_Desc.pdf.

USEPA-841-R-02-012" for Fathead minnow, *Pimephales promelas or* Rainbow trout *Oncorhynchus mykiss* may be used as a substitute for fathead minnow.

c. All toxicity tests shall meet quality assurance criteria and test acceptability criteria in the most recent versions of the EPA test method for WET testing.[11]

4. Reporting and Recordkeeping

At a minimum, every 30 days a LRP representing the discharger shall access the State Water Boards Storm Water Mulit-Application and Report Tracking system (SMARTS) and electronically upload field data from the ATS. Records must be kept for three years after the project is completed .

5. Non-compliance Reporting

a. Any indications of toxicity or other violations of water quality objectives shall be reported to the appropriate regulatory agency as required by this General Permit.

b. Upon any measurements that exceed water quality standards, the system operator shall immediately notify his supervisor or other responsible parties, who shall notify the Regional Water Board.

c. If any monitoring data exceeds any applicable NEL in this General Permit, the discharger shall electronically submit a NEL Violation Report to the State Water Board within 24 hours after the NEL exceedance has been identified.

i. ATS dischargers shall certify each NEL Violation Report in accordance with the Special Provisions for Construction Activity in this General Permit.

ii. ATS dischargers shall retain an electronic or paper copy of each NEL Violation Report for a minimum of three years after the date the annual report is filed.

iii. ATS dischargers shall include in the NEL Violation Report:

(1) The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as "less than the method detection limit");

(2) The date, place, time of sampling, visual observation (inspections), and/or measurements, including precipitation; and

[11] http://www.epa.gov/waterscience/methods/wet/.

(3) A description of the current onsite BMPs, and the proposed corrective actions taken to manage the NEL exceedance.

iv. Compliance Storm Event - In the event that an applicable NEL has been exceeded during a storm event equal to or larger than the Compliance Storm Event, ATS dischargers shall report the on-site rain gauge reading and nearby governmental rain gauge readings for verification.

ATTACHMENT F - WASTE DISCHARGE PROHIBITION INFORMATION FOR ACTIVITIES IN STREAM ENVIRONMENT ZONES AND FLOODPLAINS OF THE LAKE TAHOE HYDROLOGIC UNIT

To protect beneficial uses and achieve water quality objectives, the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains prohibitions against waste discharges to surface waters and to lands within 100-year floodplains in the Lake Tahoe Hydrologic Unit (HU), and prohibitions against "permanent disturbance" in Stream Environment Zones (SEZs) in the Lake Tahoe HU. These prohibitions may apply to certain construction activities conducted in these areas.

I. Waste Discharge Prohibitions and Exemptions

A. 100-year Floodplains/Highwater Rim

Chapter 5, section 5.2 of the Basin Plan specifies the following **discharge prohibitions** for activities within 100-year floodplains:

> 8. and 9. "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."

Chapter 5, section 5.7 provides that **exemptions** may be granted for the following categories of projects that are applicable to construction activities in 100-year floodplains.

1. Public outdoor recreational facilities if: (a) the project is a necessary part of a public agency's long range plans for public outdoor recreation; (b) the project, by its very nature, must be sited in a floodplain; (c) there is no feasible alternative that would reduce the extent of encroachment in a floodplain; and (d) the impacts on the floodplain are minimized.

2. Public service facilities if: (a) the project is necessary for public health, safety or environmental protection, (b) there is no reasonable alternative, including spans, which avoids or reduces the extent of encroachment in the floodplain, and (c) impacts on the floodplain are minimized.

3. Projects that require access across floodplains to otherwise buildable sites if: (a) there is no reasonable alternative that avoids or reduces the extent of encroachment in the floodplain; and (b) the impacts on the floodplain are minimized

4. Erosion control projects, habitat restoration projects, SEZ restoration projects and similar projects provided that the project is necessary for environmental

protection and there is no reasonable alternative which avoids or reduces the extent of encroachment in the floodplain.

B. Stream Environment Zones

Chapter 5 (page 5.2-3) of the Basin Plan specifies the following **discharge prohibitions** for activities within SEZs:

> 13. "The discharge or threatened discharge, attributable to new development in Stream Environment Zones, of solid or liquid waste, including soil, silt, sand, clay, rock, metal, plastic, or other organic, mineral or earthen materials, to Stream Environment Zones in the Lake Tahoe basin is prohibited."

"New development" as used in the Prohibition 13 means ". . . construction activity resulting in permanent soil disturbance . . . New development does not include maintenance or repair of an existing structure or the replacement of any existing structure with another structure on the same parcel of no greater land coverage." This means that if an activity occurs in an SEZ that does not result in permanent disturbance, the prohibition is not violated.

Chapter 5, section 5.8 provides that **exemptions** may be granted for the following categories of projects that are applicable to construction activities in SEZs.

1. Public Outdoor Recreation facilities, when all of the following findings can be made: (a) the project, by its very nature, must be sited in an SEZ; (b) there is no feasible alternative that would reduce the extent of SEZ encroachment; (c) impacts are fully mitigated; and (d) SEZs are restored in an amount 1.5 times the area of SEZ disturbed or developed for the project.

2. Public Service Facilities if all the following findings can be made: (a) the project is necessary for public health, safety or the environment; (b) there is no reasonable alternative, including spans, which avoids or reduces the extent of encroachment; (c) the impacts are fully mitigated; and (d) SEZ lands are restored in an amount 1.5 times the area of land developed or disturbed by the project

3. Projects that require access across SEZs to otherwise buildable sites if all of the following findings can be made: (a) there is no reasonable alternative that avoids or reduces the extent of encroachment; (b) impacts are fully mitigated; and (c) SEZ lands are restored in an amount 1.5 times the area of SEZ disturbed or developed by the project

4. New development in man-modfied SEZs after the Lahontan Water Board has reclassified them according to the procedure.

5. For erosion control projects, habitat restoration projects, wetland restoration projects, SEZ restoration projects, and similar projects, programs and facilities, if:

    a. The project, program, or facility is necessary for environmental protection;
    b. There is no reasonable alternative, including relocation, which avoids or reduces the extent of encroachment in the SEZ; and
    c. Impacts are fully mitigated

In accordance with the Basin Plan, impacts to SEZs due to erosion control projects, habitat restoration projects, wetland restoration projects, or SEZ restoration projects do not need to meet the 1.5:1 restoration requirement and may be granted exemptions to the prohibitions against discharges to surface waters.

II. Exemption Process

In order to obtain an exemption to the waste discharge prohibitions described above, applicants must provide Water Board staff with the information needed to justify the exemption. If a project activity qualifies, staff will prepare a draft exemption and circulate the proposed action to the Water Board members and other interested parties for a 10-day review and comment period. If no objections are received, the Water Board's Executive Officer is authorized to grant the exemptions. Exemptions will be issued by a written notice to the applicant, typically provided with the NOA for projects involving more than one acre of land disturbance.

ATTACHMENT G – WATER QUALITY OBJECTIVES FOR CERTAIN WATER BODIES IN THE LAKE TAHOE HYDROLOGIC UNIT

Table G-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 I-2 for additional objectives		
3	Griff Creek	80/ -	0.40/ -	--	--	0.19/ -	0.010/ -	0.03/ -
4	Carnelian Bay Creek	80/ -	0.40/ -	--	--	0.19/ -	0.015/ -	0.03/ -
5	Watson Creek	80/ -	0.35/ -	--	--	0.22/ -	0.015/ -	0.04/ -
6	Dollar Creek	80/ -	0.30/ -	--	--	0.16/ -	0.030/ -	0.03/ -
7	Burton Creek	90/ -	0.30/ -	--	--	0.1/6 -	0.015/ -	0.03/ -
8	Ward Creek	70/ 85	0.30/ 0.50	1.4/ 2.8	--	0.15/ -	0.015/ -	0.03/ -
9	Blackwood Creek	70/ 90	0.30/ -	--	--	0.19/ -	0.015/ -	0.03/ -
10	Madden Creek	60/ -	0.10/ 0.20	--	--	0.18/ -	0.015/ -	0.015/ -
11	McKinney Creek	55/ -	0.40/ 0.50	--	--	0.19/ -	0.015/ -	0.03/ -
12	General Creek	50/ 90	1.0/ 1.5	0.4/ 0.5	--	0.15/ -	0.015/ -	0.03/ -
13	Meeks Creek	45/ -	0.40/ -	--	--	0.23/ -	0.010/ -	0.07/ -
14	Lonely Gulch Creek	45/ -	0.30/ -	--	--	0.19/ -	0.015/ -	0.03/ -
15	Eagle Creek	35/-	0.30/-	--	--	0.20/-	0.010/-	0.03/-
16	Cascade Creek	30/-	0.40/-	--	--	0.21/-	0.005/-	0.01/-
17	Tallac Creek	60/-	0.40/-	--	--	0.19/-	0.015/-	0.03/-
18	Taylor Creek	35/-	0.40/0.50	--	--	0.17/-	0.010/-	0.02/-
19	Upper Truckee River	55/75	4.0/5.5	1.0/2.0	--	0.19/-	0.015/-	0.03/-
20	Trout Creek	50/60	0.15/0.20	--	--	0.19/-	0.015/-	0.03/-

[1] Annual average value/90th percentile value.

[2] Objectives are as mg/L and are defined as follows:

- B Boron
- Cl Chloride
- SO_4 Sulfate
- Fe Iron, Total
- N Nitrogen, Total
- P Phosphorus, Total
- TDS Total Dissolved Solids (Total Filterable Residues)

Table G-2. WQOs for Fallen Leaf Lake

Constituent	Objective (See Fig. 3-6, location 2)
pH[1]	6.5 - 7.9
Temperature[2]	Hypolimnion -15 ℃ Bottom (105m) - 7.5 ℃ at no time shall water be increased by more than 2.8 C (5 ℉).
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 ℃ or if the water at 105m exceeds 7.5 ℃ 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.

ATTACHMENT H - RAIN EVENT ACTION PLAN (REAP) TEMPLATE

1. Date:	2. Project name & WDID #:
3. Date rain predicted to occur:	4. Predicted % chance of rain:

5. Site information:

Site name, Location (address, physical description, nearest landmark and/or access point)

6. Project storm water manager information:

Name, Company, Phone # (24/7)

7. Review information & scheduling:

- □ Inform site personnel of predicted rain
- □ Check scheduled activities and reschedule as needed
- □ Alert erosion/sediment control provider (if applicable)
- □ Alert sample collection contractor (if applicable)
- □ Schedule staff for extended rain inspections (including weekends & holidays)
- □ Check erosion and sediment control (ESC) material stock
- □ Review BMP map/SWPPP
- □ Other_____
- □ _____
- □ _____

8. Record all active and inactive disturbed soil areas (DSAs), material storage areas, stockpiles, vehicle and equipment storage and maintenance areas, and waste management areas. Cross-reference to BMP plans by sheet #.
For each area, list action items to perform and areas to review prior to the rain event. Potential action and review items are included in item 10, below.

DSA/Sheet #	Action(s) needed	Responsible party
Inspected by		
DSA/Sheet #	Action(s) needed	Responsible party
Inspected by		

DSA/Sheet # Inspected by	Action(s) needed	Responsible party
DSA/Sheet # Inspected by	Action(s) needed	Responsible party
DSA/Sheet # Inspected by	Action(s) needed	Responsible party
DSA/Sheet # Inspected by	Action(s) needed	Responsible party
Stockpile/Sheet # Inspected by	Action(s) needed	Responsible party
Stockpile/Sheet # Inspected by	Action(s) needed	Responsible party
Stockpile/Sheet # Inspected by	Action(s) needed	Responsible party
Vehicle and equipment storage area/Sheet # Inspected by	Action(s) needed	Responsible party
Waste management area/Sheet # Inspected by	Action(s) needed	Responsible party

9. Describe locations and amounts of additional rain event erosion and sediment control materials needed to carry out REAP:

10. Potential action & review items

10a. Review site BMPs

- Adequate capacity in sediment basins and traps
- Site perimeter controls in place
- Disturbed area controls in place
- Catch basin and drop inlet protection in place and cleaned
- Temporary erosion controls deployed and installed per specification
- Temporary perimeter controls deployed around disturbed areas and stockpiles
- Roads swept; site ingress and egress points stabilized
- Other:_____

_____

10b. Material storage/stockpile areas

- Material under cover or stored
- Perimeter control around stockpiles
- Other:_____
- _____
- _____

10c. Waste management areas

- Dumpsters closed
- Drain holes plugged
- Recycling bins covered
- Concrete wash-out stations covered
- Sanitary stations bermed and protected from tipping
- Other_____
- _____
- _____

10d. Spill and drips

- All incident spills and drips, including paint, stucco, fuel, and oil cleaned
- Drip pans emptied
- Other_____
- _____
- _____

11. Attach a printout of the weather forecast from the NOAA website to the REAP. Insert REAP in SWPPP.

12. Certification:

I certify under penalty of law that this Rain Event Action Plan (REAP) will be performed in accordance with the General Permit by me or under my direction or supervision.

Qualified SWPPP Practitioner Signature & Date, Printed Name

ATTACHMENT I - SUGGESTED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) OUTLINE

I. Introduction and Certifications

- **A.** SWPPP Objectives
- **B.** SWPPP Implementation Schedule
- **C.** Permit Registration Documents
- **D.** Certification and Training Requirements
- **E.** Contractor List
- **F.** Emergency contact person and 24-hour phone number
- **G.** SWPPP Availability and Public Records Access
- **H.** Required Changes (Include SWPPP amendment log form in Appendices)

II. Project Information

- **A.** Project Description, site address and driving directions
- **B.** WDID
- **C.** Construction Schedule
- **D.** Potential Construction Site Pollutants of Concern and Sources
- **E.** Site Location Map(s)

III. Best Management Practices

- **A.** Site Management Narrative (include specs in Appendix X)
- **B.** Sediment and Erosion/Stabilization Control Narrative (include specs in Appendices)
- **C.** Non-Stormwater and Material Management Narrative (include specs in Appendices)
- **D.** Dewatering and Diversions Plan Narrative (include specs in Appendices)
- **E.** Active Treatment System Plan Narrative (include ATS Plan in Appendices)
- **F.** Post-Construction Stormwater Management Measures Narrative (include specs in Appendices)
- **G.** Schedule for BMP Implementation
- **H.** BMP and Disturbed Soil Area (DSA) maps

IV. BMP Inspection, Maintenance, and Rain Event Action Plans

- **A.** BMP Inspection and Maintenance Narrative (include forms and checklists in Appendices)
- **B.** Rain Event Action Plan Narrative (Include REAP template in Appendices)

V. Construction Site Monitoring and Reporting Plan (CSMRP)

- **A.** Purpose
- **B.** Visual Monitoring (Inspections)
- **C.** Water Quality Sampling and Analysis
- **D.** Watershed Monitoring Option
- **E.** Quality Assurance and Quality Control
- **F.** Reporting Requirements and Records Retention
- **G.** Non-Compliance Reporting
- **H.** Annual Report
- **I.** Final Report

Appendices

- **A.** SWPPP Amendment Log Form
- **B.** BMP Standard Specifications
- **C.** Dewatering and Diversion Specifications (if applicable)
- **D.** ATS Plan (if applicable)
- **E.** Visual Monitoring/BMP Inspection Forms and Checklist Templates
- **F.** Rain Event Action Plan Template

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

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http://www.waterboards.ca.gov/lahontan

ORDER NO. R6T-2011-0019
NPDES NO. CAG616002

FACT SHEET FOR

GENERAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY IN THE LAKE TAHOE HYDROLOGIC UNIT, COUNTIES OF ALPINE, EL DORADO, AND PLACER

FACT SHEET
TABLE OF CONTENTS

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. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that established storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999 lowered the permitting threshold from five acres to one acre. Further, the NPDES permit must require implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate pollutants in storm water runoff. The NPDES permit must also include additional requirements necessary to implement applicable water quality standards and general waste discharge requirements pursuant to the California Water Code.

On March 10, 2005 the California Regional Water Quality Control Board, Lahontan Region (Lahontan Water Board) adopted Order No. R6T-2005-0007 as the most recent general NPDES Construction Activity Storm Water General Permit for the discharge of storm water associated with construction and land disturbing activities in the Lake Tahoe Hydrologic Unit. The General Permit accompanying this Fact Sheet supersedes Order No. R6T-2005-0007, except for enforcement purposes, for the discharge of storm water runoff from construction sites.

This General Permit authorizes discharges of storm water associated with construction activity for dischargers that agree to comply with all requirements, provisions, limitations and prohibitions in the permit. This General Permit regulates discharges of pollutants in storm water associated with construction activity (storm water discharges) to waters of the United States from construction sites that disturb one or more acres of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface.

Discharges of non-storm water to land may be necessary for the completion of certain construction projects. Such discharges include, but are not limited to, irrigating vegetation for erosion control measures, pipe flushing and testing,

uncontaminated groundwater dewatering, fire hydrant flushing, and water to control dust. Such discharges to land are authorized by this General Permit as long as they (a) comply with the prohibitions established within the General Permit, (b) do not cause or contribute to a violation of any water quality standard, (c) do not violate any other provision of this General Permit, and (d) do not require a non-storm water General Permit as issued by the Lahontan Water Board.

This 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 (MS4s) or other watercourses within their jurisdiction.

Dischargers of storm water runoff to surface waters of the United States are currently regulated by Order No. R6T-2005-0007, which was adopted on March 10, 2005 and expired on March 10, 2010. The terms and conditions of the Order No. R6T-2005-0007 have been automatically continued and remain in effect until new waste discharge requirements (WDRs) and NPDES permit are adopted pursuant to this Order.

II. CONDITIONS FOR PERMIT COVERAGE AND NOTIFICATION REQUIREMENTS

A. Legally Responsible Person (LRP)

The application requirements of the General Permit establish a mechanism to clearly identify the responsible parties, locations, and scope of operations of dischargers covered by the General Permit and to document the discharger's knowledge of the General Permit's requirements. To obtain coverage, the legally responsible person (LRP) or the LRP's Approved Signatory must certify and file Permit Registration Documents (PRDs) prior to the commencement of construction activity. A detailed explanation of the LRP and Approved Signatory is provided in Attachment B (Glossary) of this General Permit

B. Permit Effective Date

This General Permit is effective April 14, 2011 and provides a process for covering new dischargers and those previously covered under R6T-2005-0007 whose projects are eligible to continue under this General Permit. All dischargers requiring coverage under this General Permit on or after April 14, 2011, must file the required PRDs and filing fee, and prior to commencing land disturbing activities, must receive a written Notice of Applicability (NOA) from the Lahontan Water Board indicating the date that the permit coverage begins under the General Permit and the Waste Discharge Identification (WDID) code issued for the project.

Previously covered dischargers subject to General Permit No. R6T-2005-0007 will continue coverage under, and must comply with General Permit No. R6T-2005-0007 until a notice of termination for the project is processed, continuing coverage is granted under this General Permit, or December1, 2011, whichever comes first. Previously covered dischargers that plan to continue land disturbing construction activities and permit coverage beyond December 1, 2011 will be notified of requirements to re-register in accordance with this General Permit on or before September 1, 2011. This will allow the PRDs to be processed and require dischargers to winterize construction sites by October 15, 2011 in accordance with the new requirements of the updated Tahoe CGP. On and after December 1, 2011, General Permit No R6T-2005-0007 is rescinded and all coverage under General Permit No. R6T-2005-0007 is terminated. Previously enrolled dischargers failing to file PRDs or other information required to complete an application to renew coverage under this General Permit will lose permit coverage on December 1, 2011.

C. Registration Process

To obtain coverage, the LRP or Approved Signatory must file Permit Registration Documents (PRDs) and receive written approval by the Lahontan Water Board prior to the commencement of construction activity. Failure to obtain coverage under this General Permit for storm water discharges to waters of the United States is a violation of the CWA and the California Water Code. The LRP must electronically submit the PRDs, which include an NOI, Storm Water Pollution Prevention Plan (SWPPP), and other documents required by this General Permit, if applicable, and mail the appropriate filing fee to the State Water Resources Control Board (State Water Board) before starting construction activities. PRDs must be filed thought the State Water Board's Storm Water Multi-Application and Report Tracking System (SMARTS).

Upon receipt of the appropriate PRDs, Lahontan Water Board staff has 30 days to review the documents for completeness. If determined to be incomplete, a notice will be provided to the applicant with the reasons why the determination was made. Upon approval, a written Notice of Applicability (NOA) and WDID will be generated in the SMARTS.

D. General Permit Coverage

This Order serves as a general NPDES Permit for discharges of storm water to surface waters and authorized non-storm water discharges to land associated with construction activity that results in land disturbances equal to or greater than one acre in the Lake Tahoe Hydrologic Unit,

1. Activities covered under this General Permit include:

a. Any construction or demolition activity, including, but not limited to clearing, grading, grubbing, or excavation, or any other activity that results in land disturbance of equal to or greater than one acre.

b. Construction activity that results in land surface disturbances of less than one acre if the construction activity is part of a larger common plan of development or sale that disturbs one or more acres.

c. Construction activity that results in land disturbance of equal to or greater than one acre related to residential, commercial, or industrial development on lands currently used for agriculture including, but not limited to, the construction of buildings related to agriculture that are considered industrial pursuant to USEPA regulations, such as dairy barns or food processing facilities.

d. Construction activity that results in land disturbance of equal to or greater than one acre associated with linear underground/overhead utility projects including, but not limited to, those activities necessary for the installation of underground and overhead linear facilities (e.g., conduits, substructures, pipelines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities) and include, but not limited to, underground utility mark-out, potholing, concrete and asphalt cutting and removal, trenching, excavation, boring and drilling, access road and pole/tower pad and cable/wire pull station, substation construction, substructure installation, construction of tower footings and/or welding, concrete and/or pavement repair or replacement, and stockpile/borrow locations.

e. Discharges of sediment from construction activities that results in land disturbance of equal to or greater than one acre associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.[1]

2. Activities specifically not covered under this General Permit include:

a. Disturbance to land of municipal facilities under an approved Storm Water Management Program for routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility.

b. Disturbances to land surfaces solely related to agricultural operations such as disking, harrowing, terracing and leveling, and soil preparation.

[1] Pursuant to the Ninth Circuit Court of Appeals' decision in NRDC v. EPA (9th Cir. 2008) 526 F.3d 591, and subsequent denial of the USEPA's petition for reconsideration in November 2008, oil and gas construction activities discharging storm water contaminated only with sediment are no longer exempt from the NPDES program.

c. Discharges of storm water from areas on tribal lands; construction on tribal lands is regulated by a federal permit.

d. Construction activity that disturbs less than one acre of land surface, and that is not part of a larger common plan of development or the sale of one or more acres of disturbed land surface.

e. Construction activity covered by an individual NPDES Permit for storm water discharges.

f. Discharges of storm water identified in section 402(l)(2) of the CWA, 33 USC section 1342(l)(2).

E. Permit Termination Requirements

To terminate coverage, Dischargers must file a Notice of Termination (NOT) request, final site map, and site photographs through the SMARTS when construction is complete and final stabilization has been reached or when ownership has been transferred. The Discharger must demonstrate that the site is stabilized and does not pose any additional sediment discharge risk than the pre-construction conditions. This may be accomplished using the Revised Universal Soil Loss Equation (RUSLE) or RUSLE2 or other custom methods that account for the physical characteristics (soil and cover conditions) of the site. The purpose of this requirement is to better quantify site stabilization requirements and set measurable benchmarks for project close-out.

The Discharger must certify that all State and local requirements have been met in accordance with this General Permit and demonstrate compliance with the stabilization and post-construction standards set forth in this General Permit. The Discharger is responsible for all compliance issues including all annual fees until the NOT has been filed and approved by the Lahontan Water Board.

Upon approval, a written termination notice will be transmitted to the Discharger. If revocation of coverage under the General Permit is denied, Lahontan Water Board staff shall describe the reasons for denial in a written notification.

III. DISCHARGE PROHIBITIONS

This General Permit implements the waste discharge prohibitions contained in the Basin Plan. Unless granted an exemption in accordance with the Basin Plan, all discharges to surface waters other than storm water are prohibited. The Lahontan Water Board recognizes that certain non-storm water discharges may be necessary for the completion of construction projects. Authorized non-storm water discharges to land may include those from potable water sources such as: fire hydrant flushing, irrigation of vegetative erosion control measures, pipe flushing and testing, water to control dust, and uncontaminated ground water dewatering. Certain authorized non-

storm water discharges to surface waters may be eligible for an exemption if the project meets the requirements for a restoration project or criteria specified in Attachment F of this General Permit (exemptions for 100-year floodplains and stream environment zones). To be valid, exemptions to applicable waste discharge prohibitions must be granted in writing (e.g., in a NOA).

Non-storm water discharges may 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. Measures to control spills, leakage, and dumping, and to prevent illicit connections during construction must be addressed through structural as well as non-structural BMPs.

IV. EFFLUENT LIMITATIONS

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 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR 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.

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 General Permit were developed to ensure protection of the beneficial uses of receiving waters in the Basin Plan.

A. Technology-Based Effluent Limitations

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

- Best practicable treatment control technology (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.

- Best available technology economically achievable (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.

- Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, 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.

- New source performance standards (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 section 125.3 of the Code of Federal Regulations 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 section 125.3.

On December 1, 2009 the USEPA published final regulations establishing technology-based ELGs and NSPS for the Construction and Development point source category. 40 CFR Part 450 establishes technology-based effluent limitations based BPT, BAT, BCT, and NSPS. For BPT and BCT, the ELGs establish requirements for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and outlet requirements. For BAT and NSPS, the ELGs require all dischargers disturbing 20 or more acres of land at one time, achieve a daily maximum turbidity of 280 NTU for all discharges by August 2, 2010. By February 2, 2014, the turbidity ELG will apply to construction sites involving land disturbance of 10 acres or more. In addition, BAT and NSPS include the same requirements for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and surface outlets as BPT and BCT.

Table 5.6-1 of the Basin Plan establishes effluent limitations for discharges of storm water to surface waters and municipal separate storm sewer systems, or MS4s, which are termed "collection" systems in the Basin Plan. Order No. R6T-2005-0007 established effluent limitations, consistent with Table 5.6-1 of the

Basin Plan for discharges to land treatment systems, collection systems and surface water. Effluent limitations contained in Table 5.6-1 of the Basin Plan, and established in Order No. R6T-2005-0007, are summarized below:

Table FS-1. Basin Plan Storm Water Effluent Limitations

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

Section 5.6 of the Basin Plan 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. Lahontan Water 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."

1. Numeric Effluent Limitations (NELs)

The Lahontan Water Board has determined that the application of effluent limitations to land treatment systems is not appropriate for the discharge of storm water from construction activities. Due to the connectivity of storm drains and surface waters in the Lake Tahoe Hydrologic Unit, discharges from the project boundaries must meet the more stringent effluent limitations for discharges to municipal separate storm sewer systems or surface waters where effluent is discharged from the project boundaries or into surface waters, including municipal separate storm sewer systems. The NELs for discharges to surface waters implement requirements imposed under the previous permit.

Effluent limitations for land treatment systems established in a General Permit for Construction Activities are inappropriate. The effluent limitations contained in Table 5.6-1 for discharges to land treatment systems are established to ensure that the waters infiltrated into soils do not contain excessive nutrient concentrations that may not be effectively filtered out by soils and vegetation. However, these effluent limitations do not consider the

treatment efficiency or capacity of the various types of land treatment systems that may be used by dischargers under the General Permit.

Land treatment is an effective method for removing particulate nutrients and fine sediment and under some circumstances may eliminate a discharge to surface waters. Effluent limitations to land treatment systems may unduly restrict the ability of dischargers to treat runoff by this method. Removing effluent limitations to land treatment systems and focusing on effluent limitations applied at the point of discharge, is considered more effective and is consistent with State and federal anti-backsliding requirements.

The numeric effluent limitations contained in Table 5.6-1 are more stringent than those established in the federal ELGs (turbidity). Thus, numeric effluent limitations based on Table 5.6-1 of the Basin Plan have been established in the General Permit as follows:

Table FS-2. Numeric Effluent Limitations

Parameter	Units	Maximum Daily Effluent Limitations For Discharge To Surface Waters
Total Nitrogen (as N)	mg/L	0.5
Total Phosphorus (as P)	mg/L	0.1
Total Iron	mg/L	0.5
Turbidity	NTU	20
Grease and Oil	mg/L	2

Additionally, numeric benchmark levels for pH have been established because construction activities often involve materials, such as concrete, grout, and etching acids, which can affect the pH of runoff. The benchmark action level applies to pH levels not within the range between 6.0 and 9.0. Based on previous data collected and other anecdotal evidence, the Water Board recognizes that pH level in storm water runoff may fluctuate naturally depending on site characteristics. Therefore, dischargers are required to sample for pH when site conditions have the potential to affect pH. If the results do not meet the benchmark range levels, dischargers are required to investigate the cause of the pH excursion and implement corrective actions as needed. This action level is expected to protect receiving waters from changes in pH by more than 0.5, which is the receiving water objective for pH in the Lake Tahoe Hydrologic Unit.

2. Compliance Storm Event

This General Permit contains "compliance storm event" exceptions from the technology-based turbidity NEL similar to the Statewide General Permit. The rationale is that technology-based requirements are developed assuming a certain design storm (defined as the storm producing a rainfall amount for a specified BMPs capacity). Compliance thresholds are needed for storm events above and beyond the design storms assumed to determine the technology-based NELs. This General Permit establishes a compliance storm event as the equivalent rainfall in a 20-year, 1-hour storm, which is 1 inch of rainfall in a 1-hour period. This compliance storm event was chosen because it is consistent with the Basin Plan and other policies for pre- and post-construction BMP requirements.

3. Best Management Practices

Construction activity may result in the discharge of pollutants to receiving waters through storm water runoff and additional dry weather flows. These discharges can be minimized through best management practices and other pollution prevention measure that reduce dry weather discharges, reduce erosion, retain sediment, and minimize contact of materials with storm water.

Consistent with 40 CFR 122.44(k)(4), Order No. R6T-2005-0007 established BMPs and the requirement to develop and implement a SWPPP. This General Permit carries over the requirements to implement BMPs and a SWPPP. Additional BMPs have been established in the General Permit to be consistent with the requirements found in 40 CFR 450 for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and surface outlets.

This General Permit also establishes requirements for a Rain Event Action Plan (REAP), which establishes requirements to protect all exposed portions of sites within 24 hours prior to any likely precipitation event. The requirements for the REAP have been modified and established after considering the requirements of the Statewide General Permit.

B. Water Quality-Based Effluent Limitations (WQBELs)

Section 301(b) of the CWA and 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.

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 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.

1. Applicable Beneficial Uses and Water Quality Criteria and Objectives

Beneficial uses of surface waters within the Lake Tahoe Hydrologic Unit include MUN, AGR, GWR, FRSH, REC-1, REC-2, COLD, SPWN, COMM, WILD, WQE, FLD, NAV, BIOL, RARE, and MIGR.

The Basin Plan includes both narrative and numeric water quality objectives applicable to receiving waters in the Lake Tahoe Hydrologic Unit. In addition, priority pollutant water quality criteria in the California Toxic Rule (CTR) are applicable to receiving waters in the Lake Tahoe Hydrologic Unit.

2. Determining the Need for WQBELs

Typical pollutants expected in discharges of storm water runoff from construction activities include nutrients, sediments, and petroleum products. As discussed above, 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 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. R6T-2005-0007 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 water quality-based effluent limitations as well as technology-based effluent limitations.

Table 5.1-3 (summarized in Attachment G) of the Basin Plan establishes 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-2005-0007 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 General Permit carries over these receiving water limitations.

Due to the presence of portable sanitation devices (porta-potties), the synergistic effects of unknown pollutants in storm water runoff, and the potential presence of toxic materials at construction sites, 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-2005-0007 established the narrative effluent limitation:

"All surface flows generated within the project area, or as a results of the development of the project, which are discharged to surface waters or municipal storm water collection systems shall 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 human wastes."

The narrative effluent limitation for toxicity and coliform organisms has been carried over.

Section 5.6 of the Basin Plan requires storm water permits issued by the Lahontan Water Board to take into consideration the quality of run-on from offsite areas. Order No. R6T-2005-0007 required that if pollutant concentrations of waters entering the project area exceed the numerical limitations specified above there shall 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.

C. Satisfaction of Anti-Backsliding Requirements

Sections 402(0)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR 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-2005-0007.

D. Satisfaction of Antidegradation Policy

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.

This General Permit is no less stringent than Order No. R6T-2005-0007 and does not extend the coverage of the General Permit beyond the types of dischargers previously authorized to discharge under Order No. R6T-2005-0007. 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. Discharges not consistent with the provisions of these policies and regulations are not covered by this General Permit.

E. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations and WQBELs for individual pollutants. The technology-based effluent limitations consist of restrictions on total nitrogen, total phosphorus, total iron, turbidity, and grease and oil. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

1. All surface flows generated within the project site that discharge to surface waters or municipal storm sewer collection systems shall not contain constituents in excess of the following concentrations:

Table FS-3. Summary of Final Effluent Limitations

Parameter	Units	Maximum Daily Effluent Limitations For Discharge To Surface Waters
Total Nitrogen (as N)	mg/L	0.5
Total Phosphorus (as P)	mg/L	0.1

Parameter	Units	Maximum Daily Effluent Limitations For Discharge To Surface Waters
Total Iron	mg/L	0.5
Turbidity	NTU	20*
Grease and Oil	mg/L	2
Note* - For ATS: 10 NTU for daily flow-weighted average and 20 NTU for any single sample.		

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

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 shall 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 human wastes.

V. RECEIVING WATER LIMITATIONS

The Basin Plan contains numeric and narrative water quality objectives applicable to all surface waters within the Lahontan Region as well as site-specific objectives for certain waters within the Lake Tahoe Hydrologic Unit. The Basin Plan also includes an objective to maintain the high quality waters pursuant to federal regulations (40 CFR 131.12) and State Water Board Resolution No. 68-16 (Anti-Degradation Policy). Surface water limitations in this General Permit are included to ensure protection of background water quality and beneficial uses of the receiving water.

VI. TRAINING QUALIFICATIONS AND CERTIFICATION

USEPA suggests that qualified personnel prepare SWPPPs and points to numerous states that require certified professionals to be on construction sites at all times. States that currently have certification programs are California, Washington, Georgia, Florida, Delaware, Maryland, and New Jersey. Order No. R6T-2005-0007 requires that personnel implementing the Storm Water Pollution Prevention Plan (SWPPP) be trained on the appropriate procedures. However, it does not specify any training criteria for SWPPP developers nor is there a specific curriculum or certification program required by the Order. This has resulted in inconsistent implementation by all affected parties - the dischargers, the local governments

where the construction activity occurs, and the regulators enforcing Order No. R6T-2005-0007.

This General Permit requires that all SWPPPs be written, amended, and certified by a Qualified SWPPP Developer (QSD) and that a Qualified SWPPP Practitioner (QSP) is responsible for implementing the SWPPP. A QSD must possess one of the certifications and or registrations specified in this General Permit. A QSP must possess one of the certifications and or registrations specified in this General Permit by **April 13, 2012**. Table FS-4 provides an overview of the criteria used in determining qualified certification titles for a QSD and QSP.

Additionally, the QSD/P, effective **April 13, 2012**, must have attended a State Water Board-sponsored or approved Qualified SWPPP Developer training course and pass the associated examination. The State Water Board has entered into a Memorandum of Understanding with the California Stormwater Quality Association (CASQA) to implement the training and certification program. Specific information on training and educational classes is accessible at: http://www.casqa.org/TrainingandEducation/tabid/201/Default.aspx.

Table FS-4. Qualified SWPPP Developer/ Qualified SWPPP Practitioner Certification Criteria

Certification/ Title	Registered By	QSD/QSP	Certification Criteria
Professional Civil Engineer	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Professional Geologist or Engineering Geologist	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Landscape Architect	California	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Professional Hydrologist	American Institute of Hydrology	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites
Certified Professional in Erosion and Sediment Control™ (CPESC)	Enviro Cert International Inc.	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Inspector of Sediment and Erosion Control™ (CISEC)	Certified Inspector of Sediment and Erosion Control, Inc.	QSP	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Erosion, Sediment and Storm Water Inspector™ (CESSWI)	Enviro Cert International Inc.	QSP	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Certified Professional in Storm Water Quality™ (CPSWQ)	Enviro Cert International Inc.	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites 5. Continuing Education
Professional in Erosion and Sediment Control	National Institute for Certification in Engineering Technologies (NICET)	Both	1. Approval Process 2. Code of Ethics 3. Accountability 4. Pre-requisites

VII. BEST MANAGEMENT PRACTICES

Consistent with 40 CFR 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 from construction sites. In addition, 40 CFR 122.45 establishes BMP requirements for erosion and sediment controls, soil stabilization, dewatering, pollution prevention measures, prohibited discharges, and surface outlets as BPT and BCT. This General Permit establishes minimum BMPs to be implemented by dischargers, based on Order No. R6T-2005-0007, the Statewide General Permit, and the requirements of 40 CFR 122.45.

A. Site Management

Proper handling and managing of construction materials and controlling the limits of land disturbing activities can help minimize threats to water quality. The discharger must consider appropriate site management measures for construction materials and other potential pollutant sources, waste management, vehicle storage and maintenance, landscape materials, vehicle access routes, and construction limits.

B. Sediment and Erosion Control

Sediment control BMPs should be used in combination with erosion controls as a means of preventing storm water contamination. The discharger is required to consider perimeter control measures such as installing silt fences or placing straw wattles below slopes, installing drain inlet protection, installing temporary check dams in flow lines, and constructing sediment basins to capture and treat runoff.

The best way to minimize the risk of creating pollution problems during construction is to prevent erosion at the source. The discharger is required to implement effective erosion control measures in combination with appropriate sediment control measures such as preserving existing vegetation where feasible, limiting disturbance, and stabilizing and re-vegetating disturbed areas as soon as possible after grading or construction activities. Particular attention must be paid to large, mass-graded sites where the potential for soil exposure to the erosive effects of rainfall and wind is great and where there is potential for significant sediment discharge from the site to surface waters. Until permanent vegetation is established, temporary soil stabilization is the most cost-effective and expeditious method to protect soil particles from detachment and transport by rainfall. The discharger is required to consider measures such as covering disturbed areas with mulch, applying temporary seeding, and using soil stabilizers, binders, or blankets. These erosion control measures are only examples of what should be considered and should not preclude new or innovative approaches currently available or being developed.

Inappropriate management of run-on and runoff can increase erosion and result in excessive physical impacts to receiving waters from sediment and increased flows. The discharger is required to manage all run-on and runoff from a project site. Examples include installing berms, gravel bags, or other temporary run-on and runoff diversions, and providing outlet protection at discharge points.

C. Non-Storm Water Management

Non-storm water discharges directly connected to receiving waters or the storm drain system have the potential to negatively impact water quality and are prohibited unless a prohibition exemption is granted in writing. The discharger must implement measures to control all non-storm water discharges to land during construction that are conditionally allowed under the terms of this General Permit. Examples include; properly washing vehicles in contained areas, controlling water applications when cleaning streets, and minimizing irrigation runoff. Control measures must be described in the SWPPP.

D. Dewatering

The discharge of dewatering waste to surface waters is allowed only when alternative options have been considered and deemed infeasible. When dewatering waste must be discharged to surface waters, a site-specific dewatering plan shall be prepared and accepted by the Lahontan Water Board before the discharge may commence. The plan shall be incorporated into the project SWPPP. In certain areas, a Basin Plan prohibition exemption may be required.

E. Inspection, Maintenance, and Repair

All management measures must be periodically inspected, maintained and repaired to ensure that receiving water quality is protected. Frequent inspections coupled with thorough documentation and timely repair is required by the General Permit.

F. Rain Event Action Plan

A Rain Event Action Plan (REAP) is a written document, specific for each rain event, that when implemented, protects all exposed portions of the site. A suggested REAP template is provided in Attachment H. The REAP requirement is designed to ensure that the discharger has adequate materials, staff, and time to implement erosion and sediment control measures before the storm event occurs. A REAP shall be developed at least 24 hours before the day a forecast of 30 percent or greater probability of precipitation is predicted in the project area. This requirement differs from the requirements established in the

Statewide General Permit due to the nature of summer thunderstorms that typically occur in the Lake Tahoe Basin. Dischargers shall consult the National Oceanic and Atmospheric Administration (NOAA) website to determine the probability of predicted rain events in the project area. The website link is: http://www.srh.noaa.gov/forecast. Dischargers should be prepared to respond rapidly during periods when thunderstorm activity is predicted and monitor weather conditions for impending thunderstorms that may be localized in the project area.

G. Active Treatment System (ATS[2]) Requirements

Requirements in this General Permit for the use of an ATS is identical to the requirements established in the Statewide General Permit. There are instances on construction sites where traditional erosion and sediment controls do not effectively control accelerated erosion. Under such circumstances, or under circumstances where storm water discharges leaving the site may cause or contribute to an exceedance of a water quality standard, the use of an ATS may be necessary. Additionally, it may be appropriate to use an ATS when site constraints inhibit the ability to construct a correctly sized sediment basin, when clay and/or highly erosive soils are present, or when the site has very steep or long slope lengths.[3]

Although treatment systems have been in use in some form since the mid-1990s, the ATS industry in California is relatively young, and detailed regulatory standards have not yet been developed. Many developers are using these systems to treat storm water discharges from their construction sites and there are a number of reasons why an ATS may be necessary. The new ATS requirements set forth in this General Permit are based on those in place for small wastewater treatment systems, ATS regulations from the Central Valley Regional Water Quality Control Board (September 2005 memorandum "2005/2006 Rainy Season – Monitoring Requirements for Storm Water Treatment Systems that Utilize Chemical Additives to Enhance Sedimentation"), the Construction Storm Water Program at the State of Washington's Department of Ecology, as well as recent advances in technology and knowledge of coagulant performance and aquatic safety. The effective design of an ATS requires a detailed survey and analysis of site conditions. With proper planning, ATS performance can provide exceptional water quality discharge and prevent significant impacts to surface water quality, even under extreme environmental conditions.

[2] An ATS is a treatment system that employs chemical coagulation, chemical flocculation, or electrocoagulation in order to reduce turbidity caused by fine suspended sediment

[3] Pitt, R., S. Clark, and D. Lake. 2006. Construction Site Erosion and Sediment Controls: Planning, Design, and Performance. DEStech Publications. Lancaster, PA. 370pp.

These systems can be very effective in reducing the sediment in storm water runoff, but the systems that use additives/polymers to enhance sedimentation also pose a potential risk to water quality (e.g., operational failure, equipment failure, additive/polymer release, etc.). The State and Lahontan Water Boards are concerned about the potential acute and chronic impacts that the polymers and other chemical additives may have on fish and aquatic organisms if released in sufficient quantities or concentrations. In addition to anecdotal evidence of polymer releases causing aquatic toxicity in California, the literature supports this concern.[4] For example, cationic polymers have been shown to bind with the negatively charged gills of fish, resulting in mechanical suffocation.[5] Due to the potential toxicity impacts, which may be caused by the release of additives/polymers into receiving waters, this General Permit establishes residual polymer monitoring and toxicity testing requirements for discharges from construction sites that utilize an ATS.

The primary treatment process in an ATS is coagulation/flocculation. ATSs operate on the principle that the added coagulant is bound to suspended sediment, forming floc, which is gravitationally settled in tanks or a basin, or removed by sand filters. A typical installation utilizes an injection pump upstream from the clarifier tank, basin, or sand filters, which is electronically metered to both flow rate and suspended solids level of the influent, assuring a constant dose. The coagulant mixes and reacts with the influent, forming a dense floc. The floc may be removed by gravitational setting in a clarifier tank or basin, or by filtration. Water from the clarifier tank, basin, or sand filters may be routed through cartridge(s) and/or bag filters for final polishing. Vendor-specific systems use various methods of dose control, sediment/floc removal, filtration, etc., that are detailed in project-specific documentation. The particular coagulant/flocculant to be used for a given project is determined based on the water chemistry of the site because the coagulants are specific in their reactions with various types of sediments. Appropriate selection of dosage must be carefully matched to the characteristics of each site.

ATSs are operated in two differing modes, either Batch or Flow-Through. Batch treatment can be defined as Pump-Treat-Hold-Test-Release. In Batch treatment, water is held in a basin or tank, and is not discharged until treatment is complete. Batch treatment involves holding or recirculating the treated water in a holding basin or tank(s) until treatment is complete or the basin or storage tank(s) is full. In Flow-Through treatment, water is pumped into the ATS directly from the runoff collection system or storm water holding pond, where it is treated and filtered as

[4] RomØen, K., B. Thu, and Ø. Evensen. 2002. Immersion delivery of plasmid DNA II. A study of the potentials of a chitosan based delivery system in rainbow trout (*Oncorhynchus mykiss*) fry. *Journal of Controlled Release* **85**: 215-225.

[5] Bullock, G., V. Blazer, S. Tsukuda, and S. Summerfelt. 2000. Toxicity of acidified chitosan for cultured rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* **185**:273-280.

it flows through the system, and is then directly discharged. "Flow-Through Treatment" is also referred to as Continuous treatment."

1. Effluent Standards

This General Permit establishes NELs for discharges from construction sites that utilize an ATS. These systems lend themselves to NELs for turbidity and pH because of their known reliable treatment. Advanced systems have been in use in some form since the mid-1990s. ATSs are considered reliable, can consistently produce a discharge of less than 10 NTU, and have been used successfully at many sites in several states since 1995 to reduce turbidity to very low levels.[6]

This General Permit contains "compliance storm event" exceptions from the technology-based NELs for ATS discharges. The rationale is that technology-based requirements are developed assuming a certain design storm. For consistency with the compliance storm event for BMP performance in this General Permit, the compliance storm event for ATS use is 1 inch of rain in a 1-hour period (20-year, 1-hour storm).

2. Training

Operator training is critical to the safe and efficient operation and maintenance of the ATS, and to ensure that all State Water Board monitoring and sampling requirements are met. The General Permit requires that all ATS operators have training specific to using ATS liquid coagulants.

H. Post-Construction Standards

Post-construction standards in this General Permit are focused on reducing fine sediment and nutrient loading to Lake Tahoe and are consistent with requirements being developed under the Lake Tahoe Total Maximum Daily Load (TMDL) program. For municipal and public roadway storm water treatment facilities, each municipal jurisdiction and state highway departments must meet the requirements set forth in its respective municipal NPDES storm water permit.

[6] Currier, B., G. Minton, R. Pitt, L. Roesner, K. Schiff, M. Stenstrom, E. Strassler, and E. Strecker. 2006. The Feasibility of Numeric Effluent Limits Applicable to Discharges of Storm Water Associated with Municipal, Industrial and Construction Activities.

For new development, re-development, and existing development BMP retrofit projects, dischargers shall consider opportunities to infiltrate stormwater runoff from impervious surfaces. At a minimum, permanent stormwater infiltration facilities must be designed and constructed to infiltrate runoff generated by the 20 year, 1-hour storm, which equates to approximately one inch of runoff over all impervious surfaces during a 1-hour period, or must meet the alternative requirements described below. Where conditions permit, project proponents should consider designing infiltration facilities to accommodate runoff volumes in excess of the 20 year, 1-hour storm to provide additional stormwater 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 groundwater 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, project proponents must either (1) provide information showing how treatment facilities are expected to meet the numeric effluent limits in the Basin Plan, or (2) document written acceptance by the local municipality or state highway department that shared stormwater treatment facilities treating private property discharges and public right-of-way stormwater are sufficient to meet the municipality's average annual fine sediment and nutrient load reduction requirements.

Runoff from parking lots, retail and commercial fueling stations, and other similar land uses may contain oil, grease, and other hydrocarbon pollutants. Project proponents designing treatment facilities for these areas must include pre-treatment devices to remove hydrocarbon pollutants prior to infiltration or discharge and contingency plans to prevent spills from polluting groundwater.

VIII. STORM WATER POLLUTION PREVENTION PLAN

This General Permit establishes requirements for the development and implementation of a SWPPP to identify the sources of sediment and other pollutants that affect the quality of storm water discharges; and to describe and ensure the implementation of BMPs to minimize or eliminate sediment and other pollutants in storm water and non-storm water discharges. The conditions of SWPPP are based on previous requirements in Order No. R6T-2005-0007 and the Statewide General Permit.

This General Permit provides more detailed requirements for the content and organization of SWPPPs to be developed. A suggested outline for the SWPPP is also presented in Attachment I.

IX. MONITORING AND REPORTING PROGRAM REQUIREMENTS

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 C of this General Permit, 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

To ensure the proper implementation of BMPs and the SWPPP, and record site conditions for use in compliance determination, visual inspections of the site are required at the end of each work day during active construction periods, and at least once a month during long periods of inactivity such as the winter shut-down period. Results of inspections must be documented and maintained with the project SWPPP.

B. Storm Water Discharge Monitoring

Pursuant to the requirements of 40 CFR 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 shall be conducted at all identified discharge points in accordance with the requirements of the MRP. The MRP requires daily sampling and analysis of storm water discharge events for turbidity using calibrated portable field meters to evaluate potential impacts from land-disturbing activities.

This General Permit also requires that all dischargers develop a sampling and analysis strategy for monitoring pollutants that are not visually detectable in storm water. The sampling strategy shall be developed based on the potential pollutants to be present considering the construction materials, soil amendments, soil treatments, and historic contamination at the site. Monitoring for non-visible pollutants is required at any construction site when the exposure of construction materials occurs and where a discharge can cause or contribute to an exceedance of a water quality objective. Examples of non-visible pollutants include glyphosate (herbicides), diazinon and chlorpyrifos (pesticides), nutrients (fertilizers), and molybdenum (lubricants). The use of diazinon and chlorpyrifos is a common practice among landscaping professionals and may trigger sampling and analysis requirements if these materials come into contact with storm water. High pH values from cement and gypsum, high pH and suspended sediment concentrations from wash waters, and chemical/fecal contamination from portable toilets are also potential pollutants from construction projects.

The pH of effluent should be between 6.0 and 9.0 to ensure protection of water quality objectives set for receiving waters. This pH range is set as a numeric benchmark level that requires dischargers to investigate the cause of any excursion outside of the 6.0-9.0 pH range. The Lahontan Water Board recognizes that, in some cases, pH levels in storm water runoff may occur at levels outside of the range due to natural conditions. In these cases, dischargers must provide data to demonstrate that an excursion is due to natural conditions.

The most effective way to avoid the sampling and analysis requirements, and to ensure permit compliance, is to avoid the exposure of construction materials to precipitation and storm water runoff by implementing appropriate BMPs. However, preventing or eliminating the exposure of pollutants at construction sites is not always possible. Some materials, such as soil amendments, are designed to be used in a manner that will result in exposure to storm water. In these cases, it is important to make sure that these materials are applied according to the manufacturer's instructions and at a time when they are unlikely to be washed away.

Other construction materials can be exposed when storage, waste disposal or the application of the material is done in a manner not protective of water quality. For these situations, sampling is required unless there is capture and containment of all storm water that has been exposed. In cases where construction materials may be exposed to storm water, but the storm water is contained and is not allowed to run off the site, sampling will only be required when inspections show that the containment failed or is breached, resulting in potential exposure or discharge to receiving waters.

C. Receiving Water Monitoring

1. Surface Water

The storm water discharge sampling requirements and NELs in this General Permit are sufficiently stringent such that surface water (also called receiving water) monitoring is not necessary in most situations. The storm water monitoring requirements specified above provide the most direct opportunity for dischargers to assess site conditions and take corrective actions as necessary. The stringency of the NELs also provides a sufficient enforcement mechanism to ensure that water quality is protected. Additionally, most storm water discharges are commingled with effluent from a variety of sources before discharging to surface waters. These conditions complicate analysis of the results and make it difficult to determine the cause of any potential effects on surface water quality. Therefore, this General Permit requires surface water sampling only in certain cases when stormwater discharge sampling is infeasible and there is a direct discharge to

surface waters from overland flow. These conditions are most often encountered on stream restoration projects where grading activities are located immediately adjacent to the surface water. In these cases, the discharger is required to collect surface water samples up and downstream of the project site.

2. Bioassessments

This General Permit requires a bioassessment of receiving waters for dischargers with construction projects equal to or larger than 30 acres with direct discharges into wadeable streams. Benthic macroinvertebrate samples shall be taken upstream and downstream of the site's discharge points in the receiving water. Bioassessments measure the quality of the stream by analyzing the aquatic life present. Higher levels of appropriate aquatic species tend to indicate a healthy stream; whereas low levels of organisms can indicate stream degradation.

Active construction sites have the potential to discharge large amounts of sediment and pollutants into receiving waters. Requiring a bioassessment for large project sites, with the most potential to impact water quality, provides data regarding the health of the receiving water prior to the initiation of construction activities. Pre- and post-construction data can be used to compare the effects of the construction activity on the receiving water.

Specific requirements of bioassessments are established in Attachment C-1 and have been developed to be consistent with the requirements of the Statewide General Permit. Each ecoregion (biologically and geographically related area) in the State has a specific yearly peak time where stream biota is in a stable and abundant state. This time of year is called an Index Period and is from July 1 through August 15 in the Lake Tahoe Hydrologic Unit. The bioassessment requirements specify that benthic macroinvertebrate sampling be conducted within this index period. If pre-construction bioassessment cannot be completed within the index period, the discharger shall pay into the Surface Water Ambient Monitoring Program (SWAMP) bank account in accordance with Appendix 3 of Water Quality Order No. 2009-0009-DWQ. Bioassessment methods are required to be in accordance with the SWAMP in order to provide data consistency within the state as well as generate useable biological stream data.

D. Reporting Requirements

1. 24-Hour Reporting

Pursuant to the requirements of 40 CFR 122.41(l)(6), this General Permit requires dischargers to orally report to Lahontan Water Board staff within 24

hours whenever an adverse condition occurs as a result of this discharge. An adverse condition includes, but is not limited to, a violation or threatened violation of the conditions of this General Permit, significant spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance pursuant to section 13267(b) of the California Water Code, a written notification of the adverse condition shall be submitted to the Lahontan Water Board within five (5) business days of occurrence. The written notification shall 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.

In the event that sampling results exceed any applicable NEL, the dischargers shall orally notify the Lahontan Water Board within 24 hours after the NEL exeedance has been identified and electronically submit all storm event sampling results through the SMARTS within five (5) business days after the NEL exceedance has been identified

2. Annual Report

All dischargers must prepare and electronically submit an Annual Report no later than November 30 of each year using the Storm water Multi-Application Reporting and Tracking System (SMARTS). The report shall cover the period from October 16 of the previous year through October 15 of the current year. The Annual Report must include a summary and evaluation of all sampling and analysis results, original laboratory reports, chain-of-custody forms, corrective actions taken during the compliance year, and identification of any compliance activities or corrective actions that were not implemented.

3. Final Report

Dischargers shall prepare a final report following completion of project construction to demonstrate that the project is completed as planned and water quality impacts have been mitigated. The discharger shall electronically submit the report through the SMARTS that describes: 1) whether the project was completed as planned in the NOI and/or any modification of the construction plans for the proposed storm water collection treatment, or disposal facilities or restoration work; 2) details any change in the amount of impervious coverage for the project site beyond what was authorized; and 3) any significant problem(s) which occurred during project construction and remedial measures planned or implemented.

4. Restoration Monitoring and Reporting

Restoration projects are often executed to improve existing water quality conditions; therefore, it is necessary to monitor restoration project effectiveness until it is self sustaining. Monitoring information can also identify project and/or construction method strengths and weaknesses. This knowledge can provide feedback into the maintenance of the existing system and also be applied to future water quality improvement projects.

This General Permit requires the discharger to submit a detailed effectiveness monitoring plan as part of the Construction Site Monitoring and Reporting Plan (CSMRP) that includes annual performance criteria for the review and acceptance by the Lahontan Water Board staff. A contingency plan must also be submitted for actions to be taken if performance criteria are not met.

Ideally, pre- and post-construction monitoring is required to best evaluate the success of the restoration project. Monitoring should include, but not be limited to, assessments of vegetative cover and water quality and quantity measurements. Where appropriate, monitoring should also include upgradient and downgradient sampling of water entering a treatment method (sediment can, sand and oil trap).

X. COMPLIANCE DETERMINATION

Order No. R6T-2005-007 was silent on how compliance with the applicable limitations was determined. This General Permit provides more detailed information on how compliance will be determined as discussed below.

A. Compliance with Effluent Limitations

As previously discussed under section V – Effluent Limitations, the technology-based turbidity NEL in this General Permit is based on the performance of a BMP assuming a certain design storm (defined as the storm producing a rainfall amount). Compliance with the NELs will not be required for storm events that exceed the equivalent rainfall in a 20-year, 1-hour storm (1 inch of rainfall in a 1-hour period). The discharger is required to provide supporting documentation (i.e., evidence of actually rainfall amount for the area, such as an on-site rain gauge and rainfall data provided by NOAA) to the Lahontan Water Board for any claims that an effluent limit exceedance occurred during a storm event exceeding a 20-year, 1-hour storm.

Additionally, NELs may not apply when run-on conditions are causing an exceedance of an NEL or when discharges do not reach surface waters. The dischargers must provide data and information to support any claim that the NELs do not apply due to these circumstances.

B. Multiple Sample Data

The NELs in this General Permit are evaluated as a maximum daily effluent limitation (MDEL). Pursuant to NPDES regulations (40CFR Part 122.2), *maximum daily discharge* limitation means the highest allowable "daily discharge." *Daily* discharge means the "discharge or a pollutant" measured during a calendar day or any 24-hour period that reasonable represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of measurement other than mass, the daily discharge is calculated as the average measurement of the pollutant over the day. For purposes of this General Permit, the daily average effluent value is defined as the arithmetic mean of the daily effluent data. When determining compliance when more than one sample result is available due to collection at multiple discharge points and/or multiple times during the calendar day, the Discharger shall compute the arithmetic mean concentration for each day of discharge.

Samples must be representative of the volume and quality of runoff from the site. Sample collection must not be manipulated in such a way as to skew the maximum daily effluent value. However, dischargers may indicate the proportional area or flow from the site that each discharge point represents and factor this into the daily average for the entire site when reporting the data.

C. Maximum Daily Effluent Limitation

The NELs in this General Permit are evaluated as a maximum daily effluent limitation (MDEL). If a daily average concentration (or when applicable, the daily median) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period.

D. Sampling by Other Parties

Sampling may be conducted by persons other than the Discharger. Water Board staff, operators of municipal separate storm sewer systems, or others may analyze storm samples. Samples collected by others may be used with other data to determine MDELs and to conduct compliance determinations, as provided above.

XI. PUBLIC PARTICIPATION

The Lahontan Water Board is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for discharges of storm water from construction-related activities. This proposed General Permit has been developed for review and comment by the public. 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

On January 27, 2011, the Lahontan Water Board notified dischargers, interested agencies, and other interested parties of its intent to prescribe waste discharge requirements for construction-related activities in the Lake Tahoe Hydrologic Unit, and provided them with an opportunity to submit their written comments and recommendations on the draft tentative permit by February 26, 2011. Notification was provided through mailing, list serve system emails, and posting on the Lahontan Water Board website. Lahontan Water Board staff revised the permit based on comments received on the tentative draft, and on March 11, 2011, the Lahontan Water Board notified dischargers, interested agencies, and other interested parties that a proposed permit was available for public review. Notification was provided through mailing, list serve system emails, newspaper notifications, and posting on the Lahontan Water Board website.

B. Written Comments

The staff determinations are proposed. Interested persons are invited to submit written comments concerning these proposed WDRs. Written comments must be submitted either in person, by email, or by U.S. mail to the Lahontan Water Board. The mailing address for the Lahontan Water Board is 2501 Lake Tahoe Blvd, South Lake Tahoe, CA 96150. Email comments may be submitted to the attention of Bud Amorfini at bamorfini@waterboards.ca.gov.

To be fully considered by staff and the Lahontan Water Board, written comments must be received at the Lahontan Water Board within ten days of the Public Hearing to consider adopting the updated permit. Comments received after that date will be forwarded on to the Lahontan Water Board.

C. Public Workshop

The Lahontan Water Board conducted two public workshops on February 10, 2011, to inform and discuss issues relating to the tentative WDRs with interested parties.

D. Public Hearing

The Lahontan Water Board has scheduled a public hearing to consider adopting the updated permit. The Board meeting is scheduled as follows:

Date: April 13-14, 2011
Time: TBD
Location: Lake Tahoe Community College

1 College Drive
South Lake Tahoe, CA 96150

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 the public can access the current agenda for changes in dates and locations.

E. 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 Lahontan Water Board at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday, at 2501 Lake Tahoe Boulevard, South Lake Tahoe, CA 96150. 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 Bud Amorfini, Engineering Geologist, at 530-542-5463 or by email at Bamorfini@waterboards.ca.gov.