



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: NEVADA DEPARTMENT OF TRANSPORTATION
1263 S. STEWART STREET
CARSON CITY, NV - 89712

Permit Number: NV0023329

Location: NEVADA DEPARTMENT OF TRANSPORTATION MUNICIPAL SEPARATE
STORM SEWER SYSTEM, OTHER
STATEWIDE, -, NV - 000000000
LATITUDE: 39.168790, LONGITUDE: -119.7684
TOWNSHIP: T15N, RANGE: R20E, SECTION: S20

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Outfall City	Outfall State	Outfall Zip	Outfall County	Latitude	Longitude	Receiving Water
MS4	MS4	Sum		CARSON CITY	NV	89701	CARSON CITY	69.168790	-119.7684	WATERS OF THE US

General:

The Permittee has applied for the re-issuance of its individual National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) stormwater discharge permit. Under the U.S. Environmental Protection Agency (EPA) Phase I Stormwater Rule, the Division issued individual large MS4 permits to the Las Vegas Valley and the Truckee Meadows that included the Permittee as a co-permittee. Under the EPA Phase II Stormwater Rule, which took effect in 2003, the Permittee could have been required to be a co-permittee on each separate small MS4 permit throughout the State as well; rather than be a co-permittee for several permits, the Permittee requested the Division to issue them a separate individual MS4 permit, which was first issued in 2004. This permit covers all stormwater activities on all highways and right-of-ways owned and/or operated by the Permittee throughout the State of Nevada that discharge to waters of the U.S.

Stormwater discharges from roadways and other Permittee facilities can be potential sources of pollutants, and the requirements outlined in this permit will help mitigate the effects of uncontrolled stormwater discharges into waters of the U.S. The mitigation effort is developed and implemented through the Permittee's Stormwater Management Program (SWMP), a comprehensive strategy created by the Permittee that addresses the multi-faceted approach to stormwater pollution control.

This permit does not cover the Permittee's construction or industrial activities that require an NPDES permit since those activities are covered under other Division-issued general permits, with the exception of materials source sites, which are included in this permit as described below. This permit does not exempt the Permittee from any other applicable federal, State, or local laws, regulations, or ordinances.

The Permittee has been developing, and will continue to develop, an Asset Management System. The Permittee has solicited services to deliver and implement a commercial Enterprise Asset Management System (EAMS) consisting of the following four (4) core components: Maintenance Management System (MMS), Pavement Management System (PMS), Bridge Management System (BMS), and Stormwater Management System (SWS).

For this permit, both the MMS and SWS will help the Permittee with the stormwater component of planning,

construction, maintenance, and repairs of the transportation assets throughout Nevada.

The MMS will be used by maintenance management to track the actual work efforts performed (including tasks, causes of maintenance, crew member and labor hours, equipment hours, materials and stockpile used, and costs) each day. The MMS may be used by a range of employees, from the Director to maintenance staff members.

The SWS will be used to monitor pollution and stormwater runoff from roads and road projects, and will help address stormwater pollution related to highway planning, design, construction, and maintenance activities. The Permittee will use the SWS to help with data collection and analysis for the submittal of state and federal regulatory agencies. The Permittee will use the SWS to collect, store, and retrieve the data necessary to generate the reports required by the regulatory agencies. The Permittee will store and manage a record and history of each stormwater asset for use in tracking and reporting various asset attributes and costs (e.g., asset type, condition, location, priority rating, forecasted condition, planned and performed maintenance activities, recommended treatments, inspections, lab results, and maintenance and construction costs).

The SWS will be used to schedule work activities that occur outside of the MMS (e.g., water quality assessments, facility and permit inspections, illicit discharge investigations, and enforcement activities). These activities may be set to pre-determined schedules or manually scheduled as necessary. The schedule information for these activities will be created, stored, and maintained within the SWS.

The Permittee will use the SWS to help monitor water quality and water quality assessment activities. This will involve the collection of water sample data from various auto-sampling sites and devices. The SWS will then collect the data from these sites and devices for the purpose of analysis and reporting water quality.

The SWS will support the initiation, execution, and completion of enforcement activities. To do this the SWS will be used to collect and record violations, to schedule and execute investigations and inspections of alleged violations, to make determinations of compliance or non-compliance, and to record and distribute notifications of compliance and non-compliance.

The SWS will be able to generate work requests describing stormwater maintenance activities to be performed and make these work requests available to be ingested by the MMS. The MMS will receive these work requests from the SWS and store them where MMS users will be able view the stormwater work requests.

EAMS will support the mapping of assets and work activities in GIS; users will be able to view all assets and view data on an interactive GIS map. The Permittee has a list of assets, task activities, causes of maintenance, equipment, materials, and stockpiles in the EAMS when it is first deployed in the State. For users who spend time in the field they may receive and record the work activities performed onto a mobile device.

The Permittee is required to track annual expenditures for the reporting period, with a breakdown for the major elements of the SWMP, and the budget for the following year and report those elements in their annual report. The Permittee will use EAMS to perform this budget modeling and to track expenditures. The MMS will support performance-based maintenance work planning and budget modeling. The maintenance work planning and budget model is based on the level of service (LOS) concept for highway assets. Current LOS, in terms of measures and report-card-type letter grades, are determined by conducting annual condition surveys of assets, such as shoulders, drainage, traffic control, and other roadside assets. Desired, or target, LOS grades are established based on considerations of engineering judgments, road user expectations, and funding constraints. The difference between target and current LOS is converted into annual workload adjustments that are applied to the previous year's work plan and budget to obtain a new annual work plan and budget that will close the gap between target and current LOS. The Permittee can use this to determine the difference between the current LOS and the target LOS.

Discharge Characteristics:

The permit authorizes the discharge of stormwater to waters of the U.S. The following non-stormwater discharges are also authorized by this permit:

Potable water line flushing during testing or fire hydrant testing;
 Diverted stream flows;
 Springs or rising groundwaters;
 Uncontaminated groundwater infiltration;
 Discharges from potable water sources;
 Residential foundation and/or footing drains;
 Air conditioning condensate;
 Irrigation water from lawns and landscaping;
 Water from residential crawl space pumps;
 Flows from natural riparian habitats and wetlands;
 De-chlorinated swimming pool discharges;
 Individual residential car washing;
 Water incidental to street sweeping (including associated sidewalks and medians) that is not associated with construction activities;
 Discharges or flows from firefighting activities;
 Dewatering discharges not requiring a separate permit;
 Discharges currently covered under a separate NPDES permit that pass through the Permittee's MS4; and
 Other discharges determined not to be a substantial contributor of pollutants to waters of the U.S. by the Division.

Impaired Waters and Total Maximum Daily Loads (TMDLs): The Permittee must evaluate annually whether stormwater discharges from any part of its MS4 contributes directly or indirectly to the listing of a waterbody on the current Nevada 303(d) List of Impaired Waters (303(d) List) if the water is a water of the U.S.

Lake Tahoe TMDL: The Lake Tahoe TMDL identifies the Permittee as a party responsible for the implementation of pollutant controls to restore historic clarity within Lake Tahoe. The Lake Tahoe TMDL is implemented through the November 2016 Interlocal Agreement (ILA) entered into by the Permittee with the Division. If the ILA is breached a more regulatory approach may be implemented.

Receiving Water:

The receiving waters are waters of the U.S. throughout the State excluding Tribal Lands.

Summary of Changes From Previous Permit:

The permit format and organization has changed as a result of the issuance of the Permit through the Division's electronic permitting system. Additionally, changes to the wording of the Permit were made as a result of cooperation between the Division and the Permittee in order to add clarity to the Permit.

Other substantial changes include the following:

The due date of the Annual Report was changed from October 1 of each year to November 1. The additional time will allow for a more thorough review and presentation of data by the Permittee, that will aid in the Division's evaluation of permit compliance.

A section was added to the Permit that requires management of stormwater from non-metallic minerals mining sites (material source sites) that could discharge pollutants to waters of the U.S. The Permittee owns or operates many material source sites throughout the State that would qualify for coverage under the Multi-Sector General Permit for industrial stormwater discharges. These sites will be covered by this permit rather than separate general permit coverage for each site. This addition will streamline the permitting process and allow the Permittee and the Division to form a comprehensive approach to regulating these sites.

The section of the previous permit that addressed the Clear Creek Watershed has been removed. The Division has decided that this watershed does not require specific mention in the Permit. The removal of the language does not relieve the Permittee of any responsibility to manage stormwater in the Clear Creek Watershed in accordance with this permit.

Proposed Effluent Limitations:

The Permittee is required to revise their Stormwater Management Program (SWMP) to address the following areas as they relate to the Permittee's MS4:

Permittee's legal authority to manage its MS4;
Stormwater education;
Public involvement and participation;
MS4 mapping;
Discharges to impaired waters;
Construction site best management practices;
New development and redevelopment planning;
Illicit discharge detection and elimination;
Industrial facility monitoring and control;
Maintenance facilities; and
Herbicide, pesticide, and fertilizer application.

The Permittee is required to develop narrative and/or numerical measurable goals for tracking the development or implementation of each program element listed above. The measurable goals shall be submitted to the Division within the SWMP.

The Permittee is required to put the SWMP through a public notice process before it is accepted by the Division.

Additionally, the Permittee is required to submit a stormwater monitoring plan annually. The stormwater monitoring plan is designed to identify pollution problem areas, determine which problem areas are the most significant, and evaluate the effectiveness of pollutant reduction Best Management Practices.

For material source site dewatering, the Permittee is required to sample the discharged water annually for pH. The permit limit is 6.0 – 9.0 S.U., which comes from the Code of Federal Regulations pertaining to such activities. This requirement is consistent with the BAT/BCT requirements of the Clean Water Act for industrial stormwater discharges rather than the MEP requirement for the municipal discharge.

Rationale for Permit Requirements:

The Division has established the requirements of this Permit to ensure that waters of the U.S. are not degraded as a result of the Permittee's discharges, and so that the permit complies with State and federal laws and regulations.

Special Conditions:

SA – Special Approvals / Conditions Table

Item #	Description
1	The annual reporting period shall be on the State fiscal year (FY): July 1st to June 30th. Annual Reports shall be due November 1st following each FY reporting period.
2	The Permittee shall submit a final revised Stormwater Management Plan to the Division no later than six (6) months after the Permittee receives comments from the Division on the revised Stormwater Management Plan.
3	The following sections do not apply to this permit; they are addressed elsewhere herein: C.1.1.; C.1.2.; C.1.3.; and C.2.
4	If any report, plan, or other submittal required by this permit cannot be submitted on or before the due date, the Permittee shall notify the Division within 72 hours of the Permittee's knowledge of the delay. The Permittee may then request in writing an extension of the submittal deadline and provide an explanation of the reason for the delay and any measures that will be taken to mitigate the delay. The Division shall notify the Permittee in writing of its decision regarding the extension request.
5	The Permittee will be notified of the Division comments in writing and either the Permittee or the Division may request a meeting to discuss said comments. For any report, plan, or other submittal required by this permit, the Permittee shall address the Division comments, if any.
6	All notifications and written documents required by this permit shall be submitted to the Division, Bureau of Water Pollution Control, Stormwater Branch Supervisor.
7	The Permittee shall submit a revised draft stormwater monitoring plan to the Division for review for this permit within six (6) months of the issuance of this permit and shall submit a revised final stormwater monitoring plan for Division approval after the public notice process.

Flow:

The flow consists of stormwater and some permit-authorized non-stormwater discharges. The flow rates associated with this permit will vary by activity and by precipitation event characteristics.

Corrective Action Sites:

Because this is a statewide permit, discharges that could be impacted by corrective actions sites, or vice versa, shall be evaluated on a case-by-case basis.

Wellhead Protection Program:

Because this is a statewide permit, discharges near or within wellhead protection areas and drinking water protection areas shall be evaluated on a case-by-case basis.

Monitoring and Result Summary for the NDOT permit:

During the previous permit cycle, the Permittee conducted a monitoring program with co-research studies looking at "The Effectiveness of Road Operations and Maintenance Practices", "Estimating Fine Sediment Generation from Highway Cut Slopes in the Lake Tahoe Basin", and the "Evaluation of Pervious Concrete Mixes in Areas Subject to Snow Plow Operations and Abrasive and Salt Application". In addition, the Permittee partnered with the Truckee Meadows Stormwater Permit Coordinating Committee (TMSWPCC) for stormwater quality monitoring at various outfall location in the Truckee Meadows region, as well as conducted targeted stormwater sampling from the Permittee's roadways and maintenance facilities. The Pemritee also partnered with the Desert Research Institute to conduct continuous monitoring at four sites

distributed with Clear Creek, Lake Tahoe and Las Vegas Wash

NV0023329 watersheds. The Permittee contracted with Michael Baker International to conduct inspections and monitor five stormwater treatment basins has also been established.

In the Lake Tahoe basin studies, monitoring efforts were conducted at eight sites within the basin and included flows from the Permittee's roadway, inflow and outflow from stormwater treatment devices and stormwater flow that bypassed both systems. Results from this study suggested that stormwater runoff volumes have more influence on pollutant loading than pollutant concentrations. Results also suggest that reducing stormwater volumes may be more effective in treating pollutant loading than utilizing stormwater treatment devices designed to reduce pollutant concentrations.

The Permittee has extended the ongoing Road Operations and Maintenance Practices study through FY19. The objective is to provide cost-effectiveness information and operational guidance to participating jurisdictions to efficiently and effectively operation their stormwater management programs with the Lake Tahoe Basin.

To assess the Effectiveness of Permeable Concrete on reducing fine sediment in areas exposed to winter road maintenance operations, two test sections were installed along SR-28 and SR-431 in the Lake Tahoe Basin. These sites were monitored to assess stormwater infiltration rates and physical durability in areas subject to winter maintenance operations, i.e. snow plowing and sand/salt application. Results of the study indicate that infiltration rates decreased substantially after only one year of service. As suggested by the study, an enhanced understanding of the failure mechanisms would help guide better design, construction and maintenance practices. Results of the study indicate that the use of pervious concrete as an LID measure for stormwater treatment may not be a viable option.

The Permittee's partnership with the TMSWPCC continues in an effort to characterize the stormwater quality from four urban stormwater outfalls that discharge to the Truckee River, along with six Truckee River tributaries. As part of a study in water year 2016, non-storm baseflow samples were collected from Steamboat Creek and North Truckee Drain over a 24- hour period. Results of the studies indicate elevated concentrations of various water quality constituents (notably total nitrogen), in select tributaries and urban outfalls discharging to the Truckee. The Permittee also partnered with the TMSWPCC to perform assessments of select major tributaries to the Truckee River to evaluate impacts from development, and track trends in stream condition.

The Unmanned Aerial Vehicle (UAV) data monitoring allows the generation of 3-D terrain modeling data that will assist the Permittee with monitoring erosion and sediment deposition within the basins over time. The Permittee installed pressure transducers in the five basins to record the stage of water in and below (~ 3 ft.) the basin. The data collected from the pressure transducers will help monitor the volume of water captured by the basins during storm events, infiltration rates, and draw-down time. The Permittee will also collect precipitation data. Comparing precipitation volumes to runoff volumes will help the Permittee further understand the hydrology of the detention basins.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	Submit a draft revised Stormwater Management Plan per Section B.5.1. for Division review no later than one (1) year from the issue date of this permit.	8/10/2019

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

Item #	Description	Interval	First Scheduled Due Date
1	Annual Report	Annually	11/1/2019
2	Annual fiscal analysis to include allocated resources, expenditures and staff resources.	Annually	11/1/2019

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to waters of the U.S. subject to the conditions contained within the permit, is being sent to the **Reno Gazette Journal, and Las Vegas Review Journal, Elko Daily Free Press** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **7/16/2018**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue / re-issue the proposed 5-year permit.

Prepared by: **Andrew Dixon**

Date: **6/6/2018**

Title: **Stormwater Supervisor**